ARTICLE 7. GENERAL DEVELOPMENT STANDARDS

7.1. Landscaping and tree protection.
7.2. Stormwater management.
7.3. Outdoor storage and display.
7.4. Off-street parking and loading standards.
7.5. Sign regulations.
7.6. Outdoor lighting standards.
7.7. Access standards.

7.1. Landscaping and tree protection.

A. **Purpose and intent.** The purpose of this section is to regulate the planting and preservation of landscape material, to promote the general health, safety and welfare of the community and in addition, to facilitate the creation of an attractive environment to protect property values and to further the urban design and economic development objectives of the Town-wide comprehensive plan. This section is intended to apply minimum standards, which result in a better overall appearance of the community by:

1. Achieving a harmonious relationship between the natural landscape and manmade structures;
2. Enhancing the community's natural, cultural and visual resources.
3. Achieving the goals and policies of the officially adopted comprehensive plan currently in force.

B. **Applicability.** The provisions of this section and the Town of Garner Planting Manual contained in Appendix E shall apply to all public and private land located within the Town of Garner.

1. **New development.** The requirements of this section apply to the entire site for all new development.
2. **Expansion of existing development.** Where existing development is expanded as described below, the requirements of this section shall apply to the entire site:
   a. **Residential district or exclusive residential use in any district.** Any increase in the gross floor area of the building, developed area or site of 20 percent or more, or 1,000 square feet, whichever is less.
   b. **Commercial district or use.** Any increase in the gross floor area of the building, developed area or site by ten percent or more, or 1,000 square feet, whichever is less.
   c. **Industrial district or use.** Any increase in the gross floor area of the building, developed area, or site by 20 percent or more, or 5,000 square feet, whichever is less.
3. **Exemptions to the landscape/maintenance requirements.**
   a. Improvements or repairs to the interior or exterior of structures or buildings that do not result in an expansion or change in use shall be exempt from the landscape planting requirements, but not the maintenance requirements.
   b. A single detached dwelling on its own lot shall be exempt from landscape planting and maintenance requirements.

C. **Landscape plans.**

Commentary: Landscape plans should be prepared with the appropriate mix of plant varieties and quantities necessary to meet the requirements of Section 7.1 of the UDO. In cases where overhead power or utility lines exist, selected landscape material located underneath said lines must be the appropriate plant type so as not to create future conflicts. Information regarding the types of trees and shrubs that can be planted near power or utility lines can be obtained from the Garner Planning Department.

A registered landscape architect shall prepare landscape plans, except where expressly exempted by the Planning Director. The landscape treatment shall adequately detail the requirements of this section; planting, landscape and buffer treatments required by the Town of Garner Planting Manual contained in Appendix E; and all other applicable sections of this UDO.

1. **Required planting components.**

   a. There are four required planting components that may need to be addressed for any site subject to this section, as follows:

      (1) Tree canopy cover;

      (2) Tree preservation (if required);

      (3) Buffers, yards, vehicular surface areas and street trees; and

      (4) Screening of objectionable views.

   b. These subsections address the minimum planting requirements for plan submittals.

2. **Landscape plan required.** Landscape plans shall include the following.

   a. Any natural features that influence the site's design.

   b. Elements of required landscaping including buffers, tree cover, street yards, side and rear yards, open space, greenways, site distance triangles and easements.

   c. Proposed plant schedule to include plant types, botanical and common name, spacing, quantities, sizes (height and spread and container size) and quantities. Tree cover calculations adequate in detail to determine compliance with these standards.

   d. Proposed drives, paving, decks, walks, pools and other man-made structures/elements which are to be introduced within the property.

   e. Proposed grades on landscape plan shall be half-toned on the print so as not to conflict with the legibility of the planting scheme and labels.

   f. Construction notes/details relating to hardscape elements, specific material and planting procedures, and seeding schedules.

   g. A plant points table that indicates the calculation of required and proposed landscape plantings for the development, detailing the use

of the existing plant material, and the new plantings that are to be applied toward the required buffers, yards and vehicular surface areas.

h. Show calculations for tree canopy cover requirements.

i. If underground irrigation is to be used, all double check or RPZ valves and controllers shall be located on the landscape plans submitted and shall be screened from view from adjacent right-of-way.

j. Sight line drawings may be required by the Planning Director for development that proposes inappropriate building scale, materials or architecture or has a substantial grade difference or proposes insufficient screening treatments.

D. **Plant material installation requirements.** Plant material requirements are based on square footage area of the four required planting components, and may be based on sight line drawings. Credits are based on the size and height of existing or proposed material. Refer to the credit for retaining mature trees chart and the plant points table below. Also refer to the residential and non-residential development cover requirements in Sections I.2.c. and d.; the perimeter and street buffer charts in Sections K.6 and Sections K.8 and Sections L.2.c, L.3.b, and L.4.b.

1. **Conditions.**

a. All plants material installed must meet standards set by American Association of Nurserymen, Inc., "Standards for Nursery Stock".

b. The minimum number of plants required, regardless of area calculations, is three trees and 20 shrubs.

c. A minimum of ten percent of the required landscape installation based on the total plant points for the entire site shall be installed next to the building.

d. For large-scale buildings a minimum of 25 percent of the area of the front wall and of the building shall be screened with large trees planted within 25 feet of the building.

2. **Credit for retaining mature trees.** In order to promote the retention of existing mature trees, the following schedule provides more credits for existing mature trees with diameter at breast height (DBH) sizes as noted than are awarded in the plant points table for installed trees with smaller trunks. Qualification requires that the trees be in good health and of good quality, as determined by the Planning Director.

Points	Small Hardwoods	Large Hardwoods	Softwoods
40	2½ to 4 inches	6 to 9 inches	8 to 11 inches
50	5 to 8 inches	10 to 17 inches	12 to 17 inches
64	9 to 11 inches	18 to 24 inches	18 to 29 inches
96	12 inches or larger	24 inches or larger	30 inches or larger

3. **Plant points table.**

Plant Type	Height (feet)	Size Root/ Container	Caliper (inches)	Points
Large Canopy Tree (minimum 35 feet at maturity)	14	B&B	3 to 9	40
	12	B&B	2.5	32
	10	B&B	2	25
	9	B&B	1.5	15
	8	B&B	1.25	8
Small Canopy Tree (less than 35 feet at maturity)	9	B&B	1.5	32
	8	B&B	1.25	25
	6	B&B	1	15
	5	B&B	0.75	8
Shrubs	8	B&B	—	15
	6	15 gallon/B&B	—	12
	4	10 gallon	—	10
	3	7 gallon	—	8
	2	5 gallon	—	6
	18	3 gallon	—	3
	< 18	or 1 gallon	—	1

E. **Protection of planting areas.** Planting areas shall be permanently protected from damage by vehicular traffic through the use of curbing and or wheel stops. Wheel stops shall be used in parking areas where:

1. Curbing has not been used or is less than six inches in height.
2. Proposed new trees and shrubs are planted within five feet from adjacent curbing or edge of vehicular surface area paving.

F. **Completion of work/letters of credit.**

1. A certificate of occupancy shall be issued only when all plantings have been installed and all the work shown on the approved landscape plan has been completed. Substantial changes in plantings which have changed the intent of the approved plans and changed the credit totals used to meet the ordinance requirements shall be reviewed by the Town staff for compliance prior to the issuance of the certificate of occupancy.
2. An irrevocable letter of credit or bond for 150 percent of the cost of landscaping and uncompleted work, as determined by the executed contract, will be accepted in lieu of installation where periods of adverse planting conditions prohibit the installation of the work or where the certificate of occupancy is required prior to the completion of the landscaping. The Planning Director shall have the ability to increase the amount due should the cost to install the landscaping and uncompleted work exceed the amount of the 150 percent estimated rate.

G. **Tree preservation/protection.**

1. **Purpose and intent.** The purpose of this section to promote the preservation and protection of existing tree coverage on a site. Existing

trees enhance and improve overall land values and aesthetics, contribute to the production of oxygen, reduction of carbon dioxide and water runoff while at the same time reducing the overall urban heat buildup and soil erosion.

2. **Exemptions for timbering and silviculture.** Normal forestry activities on property taxed under present-use value standard or conducted pursuant to a forestry management plan, prepared and approved by a forester registered according to Chapter 89B of the North Carolina General Statutes are exempt from tree preservation requirements.

   a. No forestry activities may take place on property until the property owner or his representative has obtained a forestry permit from the Town of Garner Planning Department. Failure to obtain a permit shall subject the owner to a fine not to exceed $500.00. Each day the violation continues shall be considered a new violation, subject to a new penalty.

   b. Forestry activities are strongly encouraged to exclude all tree harvesting and thereby preserving all trees within following perimeter buffer areas:

      (1) Fifty-five-foot wide buffers located along roadways or located adjoining developed properties; and

      (2) Thirty-foot wide buffers located adjoining undeveloped properties.

   c. In cases where all trees or substantially all trees are removed from the above referenced perimeter buffers, the Town will not grant site plan or subdivision plan approval for said property for a period of five years following the harvest of such trees. The five-year waiting period may be waived if the Board of Aldermen, by a three-quarters vote, determines a project to be desirable and grants the right to immediate development on recently timbered land where no perimeter buffer was kept.

3. **Significant or specimen tree protection requirements.** The permit-issuing authority may require any trees meeting the minimum DBH size listed below and or any trees of any diameter listed as rare species listed under the North Carolina Natural Heritage Program to be saved. Such trees shall be required to be saved only when the permit-issuing authority concludes such trees significantly contribute to the Town's appearance and natural environment, and where retaining such trees does not unreasonably burden development, as described below.

Tree Type	**Tree Size**
Overstory Hardwood Tree	24" DBH or greater
Evergreen Tree	30" DBH or greater
Understory Tree	10" DBH or greater

a. When development is unreasonably burdened by retaining such trees, the following criteria is used by the developer and staff to jointly prioritize trees to be saved based on the following criteria.

(1) Rareness of species;

(2) Evidence of disease/insects;

(3) Size and age of tree;

(4) Aesthetic value (i.e. flower, fruit, color, etc.);

(5) Expected longevity of species;

(6) Size at maturity; and

(7) Severity of slope.

H. **Stop work orders and violations/penalties.** See Article 10, Enforcement.

I. **Tree canopy cover.**

1. **Purpose and intent.** The objective of tree canopy cover standards is to preserve and maintain appropriate undisturbed tree cover, and where needed, require the provision of replacement tree cover on development sites within the Town of Garner zoning jurisdiction. Such standards support the reduction of soil erosion, air pollution, stormwater runoff and noise; moderate temperatures; and protect plant and wildlife habitat, which together assist in providing a healthier living environment for the citizens of the Town.

2. **Tree cover requirements.**

a. All new development must meet the tree cover requirements outlined in the tables below. These standards can be achieved by preserving existing trees on the site, or by planting replacement trees. Trees in required buffer yards and easements, and street trees may be credited towards the tree cover requirements. Preference is given to preserving existing trees, rather than preservation and planting, or exclusive planting, and this preference is reflected in the standards of the table.

b. Water surface areas of ponds, lakes or other surface water bodies (excluding stormwater control structures) shall be excluded from the total land area for the purposes of calculating tree cover requirements.

c. Tree residential development cover requirements.

Preserved Tree Cover Area	**Replacement Tree Cover Area**	**Minimum Total Tree Cover Area**
12%	Plus 0% equals	12%
8.5%	Plus 4% equals	12.5%
5%	Plus 8% equals	13%
1.5%	Plus 12% equals	13.5%
0%	Plus 14% equals	14%

d. Non-residential development cover requirements.

Preserved Tree Cover Area	**Replacement Tree Cover Area**	**Minimum Total Tree Cover Area**
10%	Plus 0% equals	10%
7.5%	Plus 3% equals	10.5%
5%	Plus 6% equals	11%
2.5%	Plus 9% equals	11.5%
0%	Plus 12% equals	12%

e. Areas required to be undisturbed by other requirements of the Garner UDO shall be presumed to meet requirements of this section, provided applicable standards are met.

f. All preliminary major subdivision plans, site plans, final plats and other types of plans or permits as determined by the Planning Director shall clearly indicate all tree preservation and tree replacement areas.

g. Existing tree cover areas in new subdivisions are strongly encouraged to be located in common open space areas or protected buffers, where possible. Where this is not practical, perimeter buffer areas or conservation easement areas may be increased, provided the root zone of such trees can be protected during construction.

3. **Tree cover preservation area requirements.** Trees proposed to be preserved to meet the tree cover requirements above must also meet the following requirements for tree cover preservation areas.

a. Preservation of groups of trees must occur in areas of at least 1,000 square feet on sites greater than one acre with no dimension less than 15 feet. For sites of one acre or less, preservation areas for groups of trees shall be a minimum of 500 square feet in area with no dimension less than 15 feet.

b. Individual tree cover preservation area is defined by its root zone protection area, and must be minimum size of 200 square feet, even where the root zone protection area is smaller than this size. Where specimen trees are preserved outside of other required buffers, credit shall be granted at a rate of two times the square footage of the root zone protection area.

c. In order to receive credit as tree cover, the minimum size for trees in a tree preservation area shall be two and one-half-inch DBH (except where such trees are specimen trees).

d. In cases where there is uncertainty regarding the size and quality of trees proposed for preservation, the Planning Director shall have the authority to require submittal of a limited tree survey to substantiate that such areas meet the minimum standards.

4. **Replacement tree cover requirements.**

a. Replacement trees are required to meet the standards listed in the table below.

b. At least 50 percent of the replacement trees shall be two and one-half-inch DBH or larger.

c. At least 50 percent of the replacement trees must be large hardwoods native to this region.

d. The permit issuing authority shall have the authority to approve replacement trees of different sizes or species when it determines that some flexibility is needed to better meet the purpose and intent of these regulations. Additional credit may be given by the Planning Director, as deemed appropriate, for replacement trees larger than what is indicated in the table below. For every one-half-inch caliper above what is listed below a credit of 25 square feet may be allowed (i.e. three-inch tree may receive a credit of 225 square feet).

DBH (inches)	**Credit (square feet)**
2½	200
2	175
1½	150
1	100
Less than 1	No credit

5. **Protection subsequent to plan approval.**

a. **Fencing.** During the entire period of construction activity on the site, all protected trees shall be surrounded and protected by an orange Tensar geogrid fencing fabric or approved equal fencing. Tree protection fencing shall be installed a minimum of ten feet from the trunk of any protected tree or drip line, whichever is greater. For any tree greater than ten inches DBH, this distance shall be increased one foot for every one inch in DBH. Tree protection fencing shall be maintained until a final certificate of occupancy has been issued, unless expressly exempted by the Planning Director. One sign shall be placed every 200 feet along fencing to read:

"TREE PROTECTION AREA—DO NOT ENTER/
PARA PROTECCION DE LOS ARBOLES—PROHIBIDO ENTRAR"

6. **Soil disturbance.** Subsequent to plan approval and during the entire period of construction, there shall be no soil disturbance or compaction within areas designated for tree preservation and protection, and areas protected by tree protection fencing. This includes no stockpiling of construction or other material, and no bore sampling or other similar vehicular traffic. Failure to comply with this prohibition shall subject the owner to a fine in accordance with Section 10.3.

7. **Tree survey.**

Commentary: Tree surveys are not mandatory, but may be required if landscape credit is requested for existing trees proposed for preservation when the location and size of said trees cannot easily be determined by the Planning Department.

A tree survey when required by the Planning Director shall include:

a. General significant area outline of existing trees to be saved and any individual trees meeting minimum requirements with species (abbreviated) and DBH next to each location;

b. Any trees meeting the DBH standards in paragraph G.3., above; and

c. Any existing tree eight inches DBH or greater within the first 15 feet of the portion of the buffer closest to the subject development.

d. Specimen trees located within the following areas are not required to be surveyed:

(1) Floodway;

(2) Floodway fringe;

(3) Preserved wetlands;

(4) Stream buffers; and

(5) Undisturbed steep slopes.

8. **Tree preservation incentives.**

a. The Planning Director may approve up to a 15-percent reduction in the required number of parking spaces if at least one significant tree for every three parking spaces is saved outside of the required buffers and floodways.

b. Trees and shrubs retained on-site may be used to meet landscape requirements if the trees and shrubs meet the standards of the buffer or yard to which they are being applied, and if determined appropriate by the Planning Director.

c. Undisturbed areas may be counted towards nitrogen reduction requirements.

J. **Xeriscape landscape design and planting.**

1. **Purpose and intent.** Xeriscaping is a landscaping method that maximizes the conservation of water by the use of site appropriate plant material, adequate soil preparation, proper maintenance practices and efficient irrigation that conserves water and protects the environment. Implementing the seven principles of xeriscaping below reduces the use of fertilizers and chemicals, and can reduce water consumption and improve plant vigor.

2. **Reduction in buffer width for xeriscaping.** Where the applicant demonstrates that all seven of the xeriscaping principles in the paragraph below have been satisfied, a reduction of up to ten percent of a required perimeter buffer width may be allowed by the Planning Director.

3. **Seven principles of xeriscaping.**

a. **Planning and design.** Analyze the site to take advantage of the existing conditions (i.e. solar orientation, existing vegetation etc.) that can facilitate the conservation of utility and water usage and over all maintenance costs to a site, locate and develop use areas to accommodate specific activities, identify zones of varying water requirements.

b. **Soil analysis and preparation.** Typical construction site soils lack desirable soil structure and available water or nutrients. Xeriscape methods encourage plants to develop deep root growth so that plants have access to moisture after soils dry out. This is accomplished by breaking up soil compaction and adding organic matter to keep soils porous, as well as chemically improving soils with nutrient additives. Both physical and chemical improvements are needed for deep root growth. A successful xeriscape plan includes soil test results of each water requirement zone with recommendations on correcting deficiencies in soil pH, nutrients, and amendments. If soil test is not available the following soil improvements may be used as substitute:

(1) Till the soil to a depth of six inches to break up compaction; and

(2) Incorporate topsoil, add four inches of shredded or composted organic matter, lime 9, and a balanced fertilizer to the top two to four inches of soil.

c. **Appropriate plant selection.** When deciding on plant material, it is important to select material that is not only compatible with the design but also well suited to the site, adaptable to the local environment, and grouped according to water needs.

d. **Practical turf areas.** To reduce maintenance and utility costs, it is important to design turf areas that are specific to a use (i.e. accent area in front of a doorway, entertainment zone, or play area for children) and reduce or eliminate other areas of turf grass.

e. **Efficient irrigation.** Zone the different plant materials by water requirements and provide the type of irrigation appropriate to the zone. Irrigate between the hours of 9:00 p.m. and 9:00 a.m. so as to decrease water loss due to evaporation. Use drip irrigation in beds that are mulched or on steep slopes to thoroughly soak the area without washing away the mulch or causing run-off. Wet the soil to a depth of six to eight inches to encourage deep root growth. Simply sprinkling mulched areas lightly can induce shallow root growth; shallow-rooted plants suffer in dry periods. If necessary, split water applications into two time blocks to allow the soil to absorb the water.

f. **Mulching.** Use two to four inches of fine-textured organic mulches (wood chips, composted leaves, shredded bark, pine straw) to conserve moisture and reduce the need for supplemental water. Do not use inorganic mulches, such as gravel, which accelerates water loss

from plants and soil by absorbing and reradiating heat from the sun. Do not use plastic as a soil cover as it prevents oxygen exchange and encourages shallow root growth.

g. **Appropriate maintenance.** Maintain xeriscape planting by fertilizing less during dry periods so as not to dehydrate roots, prune lightly especially during dry periods to avoid production of new growth when water is scarce, test the soil pH and correct for deficiencies; water thoroughly at a rate that matches soil absorption to encourage deep root growth and reduce run-off; mow turf grass often and high to encourage deep root growth and to shade the soil thereby reducing water use; regularly maintain and adjust irrigation systems for maximum efficiency; and, aerate to correct soil compaction and to reduce weeds and pests.

4. **More information.** For more information on xeriscaping, refer to the Town of Garner Planting Manual (in Appendix E) for details.

K. **Buffers.**

1. **Purpose and intent.** Buffers are required where incompatible uses are adjacent to or directly across the street from each other. There are two types of buffers: perimeter buffers along side and rear lot lines and street buffers along lot lines adjacent to private or public streets. Perimeter buffers perform a dual role of providing both horizontal separation and vertical screening. Street buffers provide horizontal separation only. Both perimeter and street buffers shall retain all existing vegetation a minimum of four inches DBH or greater. The potential negative effect of the incompatible use of the subject property shall determine the required buffer width. No land disturbing activities are allowed except where specified below. Minor clearing of underbrush is allowed with prior

written approval from the Planning Director and shall not be unreasonably withheld. Buffer requirements may be met with supplemental planting.

TWO TYPES OF BUFFERS

2. **Buffer vegetation requirements.** No land disturbing activities are permitted in buffers containing existing trees with a minimum caliper DBH of four inches except as provided below. A tree survey, in accordance with [Section 7.1] I.7, Tree survey, may be required for buffers containing significant or specimen trees that meet the requirements set forth in Subsection G.3, Significant or specimen tree protection requirements. No land disturbing activities shall be permitted within the critical root zone of any retained significant or specimen trees. When development is unreasonably burdened by saving significant or specimen trees within buffer classifications 3 through 6, the developer and the Planning Director shall jointly determine which trees may be removed, and what replanting and/or screening measures shall be implemented.

a. **Limited grading within buffers.** Limited grading within designated buffers may be permissible only if authorized by the permit-issuing authority according to the following limitations when grading encroachment is the only practical solution after all other reasonable alternatives have been exhausted.

LIMITED GRADING WITHIN BUFFERS

(1) In cases where designated buffers completely lack existing trees and vegetation, grading within the buffer area may be allowed by permit-issuing authority based upon evaluation of site conditions, analysis of sight line drawings and other information needed to conclude that such grading encroachment will not affect negatively adjacent properties.

(2) In all other cases, grading encroachment is allowed only in buffers 35 feet wide or greater and is limited to a maximum of 15

percent into the development side of the buffer as illustrated by the above graphic. The length of the grading encroachment in the buffer area is limited to a maximum of 15 percent of the total length of the affected buffer.

(3) If retaining walls are used, grading shall not exceed a slope ratio of 2½:1.

b. **Existing vegetation.** Existing vegetation can be used to meet all or part of the requirements of this section where such vegetation meets the minimum standard for vertical screening under the appropriate classification. Where supplemental planting is required, the Planning Director shall have the authority to specify the location to account for and provide maximum screening in the event of significant grade differences between properties to which the buffer standard applies.

c. **Proposed vegetation.** Where supplemental planting is required in buffers, the Planning Director shall have the authority to specify the location to account for and provide maximum screening in the event of significant grade differences between properties to which the buffer standard applies. Proposed vegetation shall adhere to the following buffer planting requirements:

(1) Required planting shall use a mix of deciduous overstory trees, evergreen trees, deciduous understory trees/large shrubs, and small evergreen shrubs to provide vertical screening;

(2) Monoculture plantings are not permitted;

(3) The mix shall create a 100 percent screening buffer within two years of planting.

(4) In calculating buffer planting requirements, areas of driveways and sight distance triangles shall be excluded; and

(5) Deciduous overstory trees, small trees or large shrubs, evergreen shrubs and evergreen trees shall be distributed along the entire length of the buffer. Due to unique characteristics of a site, or design objectives, alternative designs that achieve the required screening may be approved by the Planning Director.

3. **Site-specific conditions.** At the time of site plan approval, the Planning Director may require additional berming, landscaping, or screen walls to satisfy buffer separation and screening requirements on a case-by-case basis.

a. If berming is used, it shall not exceed a slope ratio of 2:1 feet. The berm must be vegetated with plant material that will accomplish a height of six feet including the berm within two years of planting.

b. If an opaque fence or wall is to be used, the height shall be six feet with the finished side facing adjacent property or right-of-way.

4. **Buffers and clear sight triangles.** No screening or buffering shall interfere with the sight distance triangles required for safe traffic movements at driveway or street intersections.

5. **Land use buffer classifications.**

Class	Uses Included
1	Single-family detached, modular single family homes, manufactured homes, cemeteries*, public park (passive use only)
2	Townhomes, condominiums (less than 12 units in project), two-family dwelling, apartments (12 units or less per acre), multiplex units, manufactured home parks, family care homes, group care homes, intermediate care homes, library, museum, art gallery, art center, day care facility, continuing care facility, group care facility, handicapped institution, intermediate care institution, nursing home, child care home, adult care, bank, community center (less than 5,000 sq. ft.)
3	Apartments (13 units or greater per acre), townhomes and condominiums (more than 12 units or more in project), business schools, public or private schools, post office, medical clinic, mental health facility, public park (active use only), minor utility, restaurant, public swimming pool, public tennis courts, indoor entertainment facility, theater, medical office, convenience store (without gasoline sales), office, personal service, community ctr. (greater than 5,000 sq. ft.), gym, spa, bed and breakfast, religious institutions, agriculture, golf course/country club, private swimming pool), private indoor/outdoor tennis court, Town hall, hospice
4	Bus passenger terminal, taxi/limousine operations or facility, trade/vocational schools, hospital, major utility, telecommunication facility, drive in/up restaurant, horse stable, extended stay facility, hotel/motel, convenience store (with gasoline sales), open air markets, indoor veterinarian/kennel facility, car wash, vehicular repair, vehicular sales and rentals, limited vehicular service, commercial parking lots, private outdoor athletic facility, water slide, outdoor entertainment, shopping center
5	College or university, ambulance service, rescue squad, fire station, police station, bar, tavern, night club, outdoor veterinarian/kennel facility, retail with outdoor operation, self service storage (inside or outside), railroad tracks
Note: Table continued on next page	

Class	Uses Included
6	Military reserve, prison or jail, sexually oriented business, drive in theater, aviation service, light industrial flex space, manufacturing/production, mining/quarry operations, warehouse or freight storage, truck terminals, reclamation landfill, recyclable material collections, salvage yard, sanitary landfill, wholesale sales, industrial (outside), vehicle towing, greenhouse

Note: Projects (new or expansion to existing ones) that abut an existing cemetery shall provide a minimum ten-foot wide buffer area with landscaping to achieve a 100 percent screen up to a height of six feet. New cemeteries or expansion to existing ones must meet required landscape and buffers requirements of this ordinance.

6. **Buffer width charts.** The following tables provide requirements for buffers between two uses. To use the tables identify the appropriate classification numbers for the proposed use and adjacent property or street. The required buffer width is listed at the intersection of the respective row and column.

a. **Perimeter buffers adjacent to developed zoning district.**

Proposed Use Classification	Adjacent Developed Classification (width in feet)					
	1	**2**	**3**	**4**	**5**	**6**
1	0	15	25	25	35	45
2	25	15	15	15	25	35
3	35	25	15	15	25	25
4	45	35	25	15	15	15
5	55	45	35	25	15	15
6	65	55	45	35	25	15

b. **Perimeter buffers adjacent to undeveloped zoning district.**

Proposed Use Classification	Adjacent Undeveloped Zoning District (width in feet)					
	SF	**MF**	**NC, NO**	**CR, CBD, SB**	**OI**	**I-1, I-2**
1	0	15	25	25	25	35
2	15	15	15	15	15	25
3	25	15	15	15	15	25
4	25	20	15	15	15	15
5	35	25	15	15	15	15
6	45	25	15	20	20	15

c. **Street buffers across from existing and proposed development.** The street buffer has only a horizontal separation requirement. For screening requirements, refer to Section L.4.b, Planting requirements in vehicle surface area, and Section M., Screening of objectionable views. Street buffers include land classifications across an adjacent street or railroad track. Refer to overlay districts for further landscaping requirements specific to thoroughfares.

Proposed Use Classification	**Street Buffer Width (width in feet)**			
	1	**2**	**3 and 4**	**5 and 6**
1	0	15	20	25
2	15	15	15	25
3	20	15	15	15
4	25	25	15	15
5	25	25	15	15
6	25	25	15	15

7. **Buffer width reductions.**

a. Where two adjacent properties, both in classifications 3 through 6, have planting requirements for perimeter buffers, the subject property may be allowed a reduction in the required adjacent perimeter buffer width and planting at the discretion of the Planning Director. If the adjoining property is developed and has a continuous planting of existing, mature evergreen shrubs along the entire length of the adjacent side property line the subject property may reduce the adjacent perimeter buffer by up to 50 percent and install only half the required side buffer planting requirements.

b. If the adjoining property is undeveloped and has a planting requirement along the entire length of the adjacent side property line the subject property may reduce the adjacent perimeter buffer by up to 50 percent and install only half the required side buffer planting requirements.

c. Street buffers are allowed reductions at the discretion of the Planning Director.

8. **Planting requirements.** Planting requirements shall apply only to screening for perimeter buffers. Planting requirements shall apply to all classifications and shall be satisfied in accordance to this subsection.

PLANTING RATE NOTES::
1. EVERGREEN TREES AT 50% REQUIRED NUMBER
2. DECIDUOUS OVERSTORY TREES AT 20% - 30% REQUIRED NUMBER
3. DECIDUOUS UNDERSTORY TREES/LARGE SHRUBS AT 20% -30% OF REQUIRED NUMBER
4. LARGE EVERGREEN SHRUBS AT 1.2 TO 4 TIMES TOTAL NUMBER TREES
*DISTRIBUTE THE VARIOUS PLANT TYPES ALONG LENGTH OF BUFFER

PLAN VIEW - TYPICAL BUFFER

SECTION VIEW - TYPICAL BUFFER

a. **Trees.** Trees shall be evenly distributed along the entire length of the buffer. To calculate the required number of trees refer to Section K.5, Land use buffer classifications, and Section K.6, Buffer width charts, above. To calculate the spacing constraints for the respective trees/ large shrubs ands evergreen shrubs use the following applicable requirements:

(1) **Deciduous overstory trees.**

(a) No tree with a caliper less than two and one-half inches shall be permitted.

(b) Of the total number of required trees, 20 to 30 percent shall be deciduous overstory trees.

(c) The planting rate per square foot shall be calculated in accordance to the following table:

BUFFER POINTS FOR TREES	
Buffer Width	**One Tree per Square Feet of Buffer**
15 feet	200 square feet
25 feet	300 square feet
35 feet	350 square feet
45 feet	400 square feet
55 feet	475 square feet
65 feet and above	550 square feet

(2) **Deciduous understory trees/large shrubs.**

(a) No deciduous understory tree/large shrub less than eight feet tall shall be permitted to be planted.

(b) Of the total number of required trees, between 20 and 30 percent shall be deciduous understory trees/large shrubs.

(c) The shrubs can be deciduous or evergreen.

(d) If there is significant existing vegetation and/or significant site characteristics/design solutions that provide adequate screening, two smaller deciduous understory trees/large shrubs with a minimum height of four and half feet can, at the discretion of the Planning Director, be substituted for one required deciduous understory tree/large shrub.

(3) **Large evergreen trees.**

(a) No large evergreen trees less than eight feet tall shall be permitted.

(b) Of the total number of required trees, at least 50 percent shall be large evergreen trees.

(c) If there is significant existing vegetation and/or significant site characteristics/design solutions that provide adequate screening, two smaller evergreen trees with a minimum

height of four and half feet can, at the discretion of the Planning Director, be substituted for one required large evergreen tree.

b. **Evergreen shrubs.**

(1) Evergreen shrubs shall be installed at a minimum height of 36 inches.

(2) Evergreen shrubs shall reach six feet within two years of planting.

(3) To calculate the required numbers of shrubs refer to Section K.5, Land use buffer classifications, and Section K.6, Buffer width charts.

(4) Evergreen shrubs shall be evenly distributed along the entire length of the buffer at the following rates per square foot:

BUFFER POINTS FOR SHRUBS	
Buffer Width	**One Shrub per Square Feet of Buffer**
15 feet	50 square feet
25 feet	75 square feet
35 feet	125 square feet
45 feet	200 square feet
55 feet	300 square feet
65 feet and above	450 square feet

9. **Sight line drawings.**

a. The Planning Director shall require sight line drawings to be submitted with landscape plans if the proposed development is adjacent to a residential district or use or in cases where the proposed development may have some impact on street views.

b. The Planning Director may require sight line drawings to be submitted with landscape plans based on, but not limited to, the following criteria:

(1) Where existing vegetation or proposed vegetation and berming is not adequate;

(2) Where the first story finished floor elevation of the proposed development is a minimum six feet higher or lower than adjacent residential zoning or use;

(3) Where materials, character or architectural features for the proposed building are different from adjacent residential structures;

(4) Where the proposed building volume is five times or greater than adjacent residential building volume, and/or the height of the proposed building is three stories (or equivalent) or higher.

c. Implications for site layout may include increased buffer width and standards, revision to building footprint dimension or location, revision to building orientation, revision to location of site support structures (dumpster, accessory buildings).

L. **Street trees, street yard, side and rear yard, vehicular surface areas.**

1. **Street trees.** Street trees shall create an environment that benefits from the aesthetic and environmental qualities of a consistent tree canopy along public and private streets and highways. Trees improve the overall appearance and provide shade, visual interest and reduce heat build up and run off.

a. All new development and qualified expansion of existing development, on both private and public street frontage, shall install at one overstory tree with a minimum caliper of two and one-half inches every 40 feet on average, or as close thereto as practicable. Planted trees shall be a minimum of five feet and maximum of 15 feet from the road right-of-way and shall be located within a public street tree easement. Variance from this spacing may be allowed to accommodate existing utilities or natural obstructions at the discretion of the Planning Director.

b. Street trees shall be deciduous overstory trees that reach a minimum height of 35 feet at maturity. Where overhead wiring exists, small ornamental trees shall be used.

c. To avoid a monoculture-planting scheme, it is recommended that a variety of tree species be planted for more diversity along the roadways.

d. Credit will be given, at the discretion of the Planning Director, for the preservation of existing overstory trees that are healthy and of good quality. The developer may be required to submit a tree survey of all existing trees to be preserved. A minimum of two-thirds of the land area within each tree's critical root zone must be preserved for such trees to receive credit.

e. One hundred percent of the required street trees may be applied to the planting requirements of Section L.2, Street yards.

STREET TREE REQUIREMENTS

298 L.F. - 48 L.F. (DRIVEWAYS) = 250 L.F.
250 L.F./40 = 6.25. i.e. 6. STREET TREES REQUIRED

f. The Planning Director may waive strict compliance with this subsection if proposed alternative concepts would meet or exceed the visual impact provided by the deciduous overstory trees along the rights-of-way.

2. **Street yards.** A street yard is the protected landscape area contained by the existing or proposed street right-of-way and an imaginary line extending along the adjacent building facade or wall to the side property line (see illustrations on the next page). Street yards are intended to provide attractive vehicular and pedestrian views of the properties, to retain or supplement existing vegetation and to provide a visual and

physical barrier between transportation routes and other land uses. Refer also to the overlay districts for discussion on street yards. Street yard requirements do not apply to single-family residential districts or uses.

STREET YARD AREA

STREET YARD AREA

a. **Design requirements.**

(1) Landscaping within the right-of-way of state roads requires an encroachment agreement from North Carolina's Department of Transportation (NCDOT). Applicants must contact NCDOT for their approval and coordinate landscape installation with any

existing or proposed utility easements or services in the right-of-way. Applicants must provide the Town of Garner Planning Department with a copy of an approved encroachment agreement prior to the issuance of a building permit.

(2) Sight distance triangles must be maintained at all intersections (see Section K.4). Plantings must not create any visual obstruction between 30 inches and seven feet in height within this triangle.

(3) Refer to the plant point table in Section D.3 for point assignments specific to plant types and sizes. Refer to Section L.4.b, Planting requirements in vehicle surface area, for additional required screening of views of vehicles from the street right-of-way.

(4) If two street yards cross, the street yard with the lesser width between the right-of-way and the building wall/facade shall be used in this area of overlap. Refer to overlay districts for additional requirements.

b. **Modification permitted in industrial subdivisions.** The landscaping requirements for industrial subdivision shall be met in a manner that enhances street appeal and maximizes screening of objectionable views. At the Planning Director's discretion, up to 75 percent of the required plantings in the side and rear yard area, and vehicular surface area plantings can be applied toward street yard areas for maximum street appeal. No reduction shall be allowed in side and rear yards where that yard is adjacent to existing residential uses or districts.

c. **Planting requirements.** The required tree and shrub installation is based on the total required points in street yards for the subject property.

(1) Calculate the required points by determining the area in street yard(s). Multiply that area by a factor specific to the subject property's zoning district as follows:

Proposed Use	Points per Square Foot of Street Yard
Residential and Multifamily	0.06
Office and Industrial	0.025
Commercial	0.025
Retail, up to 3 acres	0.025
Retail, 3 acres or greater	0.015

(2) Reduction of total required points in street yards is allowed for large front setbacks according to the following percentages:

(a) Setbacks for commercial, office, and industrial districts up to 100 feet shall meet 100 percent of the total landscape credit requirements in the street yard for planting development.

(b) Setbacks for commercial, office, and industrial districts up to 200 feet shall meet 85 percent of the total landscape credit requirements in the street yard for planting development.

(c) Setbacks for commercial, office, and industrial districts greater than 200 feet shall meet 75 percent of the total landscape credit requirements in the street yard for their planting development.

(3) Fifty percent of all required points in street yards shall be supplied by trees, and 50 percent of all required points in street yards shall be supplied by shrubs.

(4) Required buffer plantings, required street trees, required street yard plantings, and required vehicular surface area (VSA) plantings may be credited at 100 percent towards street yard plant point requirements.

Note: Images to follow on next page.

STREET YARD PLANTING TYPICAL

NOTES:
1. SEE ALSO VEHICULAR SURFACE AREA (VSA) PLANTING REQUIEMENTS.
2. REQUIRED BUFFER PLANTINGS, AND REQUIRED VSA PLANTINGS MAY BE CREDITED AR 100% TOWARDS REQUIRED TREE COVER PLANTINGS.
3. SHOW ALL CALCULATIONS FOR RQUIRED PLANTINGS.

STREET YARD PLANTING - TYPICAL

NOTES:
1. SEE ALSO VEHICULAR SURFACE AREA (VSA) PLANTING REQUIREMENTS.
2. REQUIRED BUFFER PLANTINGS, REQUIRED STREET TREES, REQUIRED STREET YARD PLANTINGS, AND REQUIRED VSA PLANTINGS MAY BE CREDITED AT 100% TOWARDS REQUIRED TREE COVER PLANTINGS.
3. SHOW ALL CALCULATIONS FOR REQUIRED PLANTINGS.

3. **Side and rear yards.** The side and rear yard is that part of the lot not in the street yard. Side and rear yard plant distribution shall occur throughout the entire side and rear yard. The side and rear yard area planting requirements shall be calculated by measuring the area bounded by the property line and the required side and rear building setbacks or the areas of required buffer, whichever area is greater.

SIDE & REAR YARD AREA CALCULATION

SIDE & REAR YARD AREA CALCULATION

a. **Design requirements.**

(1) Where the planting requirements are greater for the side and rear yard than the perimeter buffer then 100 percent of both requirements shall be installed.

(2) Where the planting requirements are greater for the perimeter buffer than the side and rear yard then only the buffer requirements shall be installed.

b. **Planting requirements.** The required tree and shrub installation is based on the total required plant points in the side and rear yard for the subject property. The required plant points vary according to the zoning district of the subject property as listed on the following page. At least 50 percent of the plant points must be from trees, and the remainder must be from shrubs.

Proposed Use	**Points per Square Foot of Side/Rear Yard**
Residential and Multifamily	0.030
Office	0.020
Commercial	0.020
Retail, up to 3 acres	0.015
Retail, 3 acres or greater	0.010
Industrial	0.025

Note: Images to follow on next page.

SIDE & REAR YARD PLANTING CALCULATIONS - TYPICAL

NOTES:
1. SEE ALSO VEHICULAR SURFACE AREA (VSA) PLANTING REQUIREMENTS.
2. REQUIRED BUFFER PLANTINGS, AND REQUIRED VSA PLANTINGS MAY BE CREDITED AT 100% TOWARDS REQUIRED TREE COVER PLANTINGS.
3. SHOW ALL CALCULATIONS FOR REQUIRED PLANTINGS.

SIDE & REAR YARD PLANTING CALCULATIONS - TYPICAL

NOTES:
1. SEE ALSO VEHICULAR SURFACE AREA (VSA) PLANTING REQUIREMENTS
2. REQUIRED BUFFER PLANTINGS, AND REQUIRED VSA PLANTINGS MAY BE CREDITED AT 100% TOWARDS REQUIRED TREE COVER PLANTINGS.
3. SHOW ALL CALCULATIONS FOR REQUIRED PLANTINGS.

4. **Vehicular surface areas.** The purpose of this section is to provide visual relief from large expanses of pavement through the introduction of landscape plantings. Landscaping lessens the visual impact of parking areas while reducing heat, glare and pollution.

VEHICULAR SURFACE AREA
IN SIDE AND REAR YARD

VEHICULAR SURFACE AREA IN STREET YARD

a. **Design requirements.** Vehicular surface areas may be located within the street, side and rear yards. Planting requirements are created for these vehicular surface areas based upon the yards they are within. Planting incorporated into these areas shall be designed using the following design guidelines and criteria.

(1) Landscape islands shall be evenly distributed throughout the vehicular surface areas for maximum shade. No parking space shall be more than 65 feet from the trunk of a deciduous overstory tree. Trees planted in clusters that exceed all other planting requirements, but are planted further than the required 65 feet from the trunk of a deciduous overstory tree, may be permitted at the discretion of the Planning Director.

(2) Plantings used to meet these requirements shall be located within the vehicular surface area or in plant beds within ten feet of the parking surface areas. Trees in the adjacent street or side and rear yard that are within ten feet from the vehicular surface area may be used to meet this requirement.

(3) Landscape islands within the vehicular surface area shall be a minimum of 198 square feet in area and 11 feet in width from back-of-curb to back-of-curb.

(4) Landscape planting areas adjacent to vehicular surface areas and perpendicular to parking spaces shall be a minimum of ten feet in width. Unless a parking space contains a specified wheel stop, trees and shrubs shall be a minimum of five feet from the edge of the pavement.

PARKING LOT TREE PLANTING REQUIREMENTS

NOTES:

1. EVERY PARKING SPACE SHALL FALL WITHIN A 65' RADIUS OF AN OVERSTORY TREE TRUNK
2. FOR EVERY PLANTING ISLAND AT THE END OF AN INTERIOR SINGLE PARKING ROW THAT IS A MINIMUM 324 S.F. (18 x 18) THERE MAY BE A REDU TION OF UP TO 12% OF TOTAL REQUIRED PARKING SPACES IN PARKING LOTS 75,000 S.F. OR LARGER.
3. DO NOT INSTALL POLE-MOUNT LIGHTS IN THE SAME PLANTING ISLAND AS HOUSES AN OVERSTORY.

(5) Planting areas at the end of parking space rows shall be required as follows:

(a) The maximum number of continuous parking spaces shall be 15.

(b) There shall be a planting island at least 198 square feet in size at the end of every row of perimeter parking spaces exceeding 15 parking spaces.

(c) There shall be a planting island at least 198 square feet in size at the end of every single row of interior parking spaces.

(d) There shall be a planting island at least 396 square feet in size at the end of every double row of interior parking spaces.

(e) Planting areas inside of parking islands shall contain positive drainage with no low spots that could trap water.

(f) All parking lot planting islands shall have curbing, pavement edging, or similar treatment if approved by the Planning Director, around the perimeter to protect plant material.

b. **Planting requirements.**

(1) Screening of vehicular surface area from adjacent public rights-of-way or private streets is required. One hundred percent of the vehicular surface area requirements can be applied toward yard and buffer planting requirements if the planting used to meet specific yard and buffer planting requirements do not adequately provide the proper screening.

(a) Vehicular surface areas shall have a visually modifying year-round screen that screens a minimum of 75 percent of the vehicular surface area from the public right-of-way and private street. The screen shall have a minimum height of 18 inches at planting. The screening must reach a height of three feet within two years of planting.

(b) The screen used may be composed of plant material, fences, walls, berms or any combination of these elements. Berms shall have a slope ratio no greater that 2½:1 with a minimum crown width of at least two feet and shall be stabilized and predominantly covered with staggered clusters of shrub plantings an average six feet on center.

(c) Fences and walls shall be compatible with the adjacent existing or proposed structures. Fence or walls shall be supplemented with plant material, which shall screen 25 percent of the fence or wall area within one year of plant installation.

(d) The required area to be landscaped within and directly adjacent to the vehicular surface area is based on the total size in vehicular surface area as follows:

Vehicular Surface Area	**Required Landscaping**
Under 10,000 square feet	5 percent
10,000 to 40,000 square feet	6 percent
Over 40,000 square feet	8 percent

(2) Verification of obstructions shall be the responsibility of the developer through the use of sections and details illustrating the site conditions.

VEHICULAR SURFACE AREA IN STREET YARD - TYPICAL PLANTING

NOTES:
1. PLANTING USED FOR STREET YARD MAY ALSO BE CREDITED IN VSA IF INSTALLED WITHIN 10' OF PARKING LOT
2. ALL PARKING SPACES MUST BE WITHIN 65' OF THE TRUNK OF AN OVERSTORY TREE.

VEHICULAR SURFACE AREA IN SIDE AND REAR YARD - TYPICAL PLANTING

NOTES:
1. PLANTINGS USED FOR SIDE AND REAR YARD MAY ALSO BE CREDITED IN VSA IF INSTALLED WITHIN 10' OF PARKING LOT.
2. ALL PARKING SPACES MUST BE WITHIN 65' OF THE TRUNK OF AN OVERSTORY TREE.

c. **Parking lots equal to or greater than 75,000 square feet.**

(1) A planting median is required in parking lots of all new development and qualified expansion of existing development. Parking lots equal to or greater than 75,000 square feet are required to provide a planting island a minimum of ten feet wide after every sixth single parking row.

(2) The planting median shall contain at a minimum one shade tree for every 65 linear feet. A maximum of 30 percent of the island can be an impervious surface.

(3) Existing trees protected in an island may be counted toward this requirement if deemed healthy by the Planning Director after completion of all construction in the adjacent area.

MEDIAN AND ISLAND REQUIREMENTS FOR PARKING LOTS 75,000 S.F. OR GREATER

(4) At the discretion of the Planning Director, the installation of every planting island that is a minimum of 306 square feet in area at the end of a single or perimeter row or a minimum of 612 square feet at the end of every double row of interior parking spaces shall result in the reduction of one required off-street parking space for a maximum of a 12 percent reduction in required off-street parking spaces.

M. **Screening of objectionable views.**

1. **Trash container areas.** Trash container areas shall be subject to the following requirements:

   a. Trash container areas shall be located to provide the least amount of visual impact from public and private rights-of-way, and adjacent residential districts or uses as determined appropriate by the Planning Director.

   b. Trash collection areas shall be fully enclosed with a fence or wall to a minimum height of eight feet to block 100 percent of the view into the enclosed area. The enclosure shall match the primary color and material of the building when viewed from public or private right-of-way and/or adjacent residential districts and uses. If the enclosure is not visible from a public or private right-of-way and/or adjacent residential district or use the enclosure panels and gate may be constructed of wood on metal posts/supports. The minimum eight-foot tall gate shall include a self-latching mechanism.

   c. Plant material shall supplement berms, walls or fences. Planting material shall screen 25 percent of the dumpster wall area. Planting material shall consist of a minimum of six low branching evergreens shrubs a minimum of three feet in height at time of planting.

   d. Standard dumpster enclosures shall be a minimum of 12 feet across by 12 feet deep for a single dumpster and 24 feet wide for a double dumpster. A six-inch thick reinforced concrete (3,000 psi) pad shall be 12 feet wide by 15 feet deep per container.

2. **Service and loading areas.** Service and loading areas shall be subject to the following screening requirements:

   a. Provide a minimum 100 percent year-round screen of all loading and service areas from the adjacent public and private right-of-way, and/or adjacent residential districts and uses.

   b. This screen shall consist of berms, walls, fences, plant material or combination totaling eight feet in height at installation or completion of construction.

   c. Wall or fence materials shall be compatible with the primary structure. Plantings shall be low branching evergreens and a minimum height of five feet at time of installation.

d. Where a service or loading area is located closer than 25 feet from a property line adjacent to a residential district, the minimum required height of the plantings shall be six feet at time of installation.

SERVICE AND LOADING AREA REQUIREMENTS

3. **Stormwater devices.** All detention/retention ponds shall be screened on all sides with evergreen shrubs maintained at a minimum height of four feet. (Note: See also the general fencing requirements)

4. **Utility elements.** Utility elements shall be subject to the following requirements:

   a. All utility devices visible from the public right-of-way or private street shall be screened with low branching evergreen shrubs a minimum of 30 inches tall at installation. Screening material shall be planted a minimum of ten feet from the access doors to provide room for service and utility maintenance activities.

b. Property owners shall follow the above requirements concerning utilities located on their property.

c. Miscellaneous elements (air conditioning units, storage tanks, non-utility transformers, compactors, and other similar elements) shall be screened entirely from vehicular view from the public right-of-way and private streets. Access to elements shall be from a side other than side facing the right-of-way.

d. All roof-mounted elements shall be 100 percent screened from view from the public right-of-way and/or adjacent properties.

5. **Screening industrial properties.** Screening in industrial subdivisions shall be subject to the following requirements:

a. Fencing, walls, hedges, landscaping, berms, natural areas or any combination of the above which is consistent with the requirements of this section shall be provided to obscure uses or portions of a specific use which by their nature have the potential to negatively impact the community and properties outside the subdivision.

b. The following specific uses shall be 100 percent screened from adjacent properties outside the subdivision and from view from public rights-of-way:

(1) Dumpsters and trash handling areas.

(2) Service entrances and utility facilities.

(3) Loading docks or spaces.

(4) Outdoor storage and any material stocks or equipment, including, but not limited to, motor vehicles, farm or construction equipment, or other similar items.

c. No buffer or screening is required in the side or rear yards between parcels with an industrial subdivision. The following standards shall apply where adjacent parcels are not within the industrial subdivision.

(1) **Buffer.**

(a) A minimum 15-foot evergreen vegetative buffer will be required adjacent to lots not within the subdivision unless buffer table dictates wider buffer requirements.

(b) Where lots adjacent to industrial subdivisions are vacant at the time the industrial subdivision receives site permit approval, then the minimum vegetative buffer shall be 15 feet unless the buffer table dictates wider buffer requirements.

(2) **Screening.**

(a) One hundred percent screening will be required in the 15-foot buffer area.

(b) Existing vegetation can be used in the areas where it meets the intent of the screening requirements and where credit is given by the Planning Director after completion of all construction in adjacent areas.

N. **Maintenance requirements.**

1. **Owner/agent responsibility.** The owner/agent is responsible for the upkeep of their property with a regular and proper maintenance program. A proper program will reduce disease, insect problems, weed control, pruning and watering. For further details refer to the Town of Garner Planting Manual in Appendix E for landscape maintenance guidelines.

2. **Slope stabilization.** All disturbed areas shall be stabilized from soil erosion immediately upon planting and shall be permanently maintained. Slopes greater than three to one shall not be stabilized with turf grass and shall require the planting of groundcover to stabilize any disturbed soil.

3. **Replacement planting.** The owner is responsible for maintaining all required plant material in good health. Any dead, unhealthy or missing plants must be replaced in a manner consistent with the requirements contained in paragraph O., below (for replacement requirements where significant plant material has been lost due to catastrophe or natural causes).

4. **Re-inspection program.** The owner is responsible for maintaining all required plant material in good health for the duration of the use of the property. Any dead, unhealthy or missing plants must be replaced with locally adapted vegetation, which conforms to the initial planting standards of this UDO and the Town of Garner Planting Manual contained in Appendix E.

5. **Excessive tree pruning prohibited.** The owner is responsible for following accepted pruning practices for all required plant material and shall avoid excessive pruning of said material. Excessive pruning is defined as: removal of more than 25 percent of the crown or root system; failure to conform to standard pruning practices; or cutting other than for hazard, utility, or maintenance pruning. Illegally pruned trees must be replaced with trees proportional to the size of the tree damaged with the minimum replacement size of three inches caliper in a 200 square foot plant bed required. The applicable penalty provisions of Section 10.3 may be applied to excessive pruning violations if deemed appropriate by the Planning Director.

O. **Loss due to catastrophe.** Should significant amounts of landscaping used to meet the requirements of this section be lost due to unusual causes or catastrophe, the owner of the property shall submit a plan detailing his/her intent in replacing lost material. Replacement planting may occur on a phased basis as approved by the Planning Director. Maximum time allowed in the phasing program is two years from the submittal of plans to the Town.

P. **Flexibility in administration authorized.** The landscaping and tree protections requirements are established by the Board of Aldermen as standards that presumptively result in a better overall appearance of the built environment and protect the natural resources of the community. The Board of Aldermen recognizes that due to the particular nature of a tract, the nature of the proposed facilities, or other factors, the objectives of this article may be achieved even though the standards are not adhered to with mathematical precision.

1. The Planning Director may permit minor deviations of no more than 10 percent from the general landscape standards and up to a 30 percent buffer width reduction.

2. The permit-issuing authority may allow greater deviations only for situations where a building or development was constructed prior to the adoption of the UDO and the buffer landscape planting standards or buffer width requirements cannot met without removing significant portions of an existing building or significantly altering the property.

3. Any deviation under this section may only be allowed when it is determined that:

   (a) The objectives underlying these standards can be met without strict adherence to them.

   (b) Because peculiarities in the developer's tract of land or the facilities proposed it would be unreasonable to require strict adherence to these standards.

4. Where deviations are authorized, the official record of action taken on the development application shall contain a statement of the reasons for the deviation.

(Ord. No. 3396, § 15, 4-3-06)

7.2. Stormwater management.

Commentary: The stormwater management provisions apply seven sets of rules, covering the areas of erosion control, stormwater quantity, conservation or protected buffers, nitrogen reduction, water supply, watershed protection, environmentally sensitive watershed protection and floodplain management. Often, more than one element will apply to an individual property. Questions about the application of these provisions should be discussed with the Town Engineer.

A. **Application to existing development.**

1. Existing structures which become nonconforming with respect to watershed regulation by the adoption of this UDO are not affected unless and until there is a repair or expansion of or reconstruction of such structure.

2. Existing structures which become nonconforming with respect to watershed regulation by the adoption of this UDO may be repaired or reconstructed without a stormwater permit or watershed protection occupancy permit provided that there is no net increase in impervious surface.
3. Existing structures, whether conforming or nonconforming, may be added to or expanded without a stormwater permit or watershed protection occupancy permit provided there is no net increase in impervious surface.
4. In determining whether there is additional impervious surface area, and in determining the best management practices to be utilized in watershed protection in connection with an addition or expansion to an existing

structure, the built-upon area of the existing development is to be excluded from any density calculations which are required to be performed.

Commentary: This means, for example, that the owner of an existing lot may build on up to 70 percent of the remaining pervious surface, rather than the 70 percent limitation being applied to the entire lot including pre-existing development.

B. **Erosion and sedimentation control.**

1. A permit shall be obtained from the Wake County Erosion Control Inspector before a developer undertakes any land disturbing activity that would result in the uncovering of 40,000 square feet or more, and that no such permit may be issued for any development that would uncover 40,000 square feet or more until an erosion and sedimentation control plan is submitted and approved, provided, that this section does not apply to activity under the exclusive jurisdiction of the North Carolina Sedimentation Control Commission is exempt from these requirements.

2. No use permit may be issued or final plat approval be given for any development that would cause land disturbing activity subject to the jurisdiction of Wake County Erosion Control Inspector or the North Carolina Sedimentation Control Commission unless such inspector or agency has certified to the Town that:

   a. Any permit required by such inspector or agency has been issued or any erosion control plan required by such inspector or agency has been approved; or

   b. Upon examination of the preliminary plans for the development it appears that any required permit or erosion control plan can be approved upon submission by the developer of more detailed construction or design drawings. However, construction of the development may not begin until such inspector or agency issues any required permit or approves any required erosion control plan.

C. **Stormwater quantity.**

1. **Stormwater management; relation to adjacent properties.** No development shall unreasonably burden adjacent properties with surface waters as a result of such development, including specifically the following:

   a. No development may be constructed or maintained so that such development unreasonably impedes the natural flow of water from higher to lower properties, thereby causing substantial damage to such higher properties; and

   b. No development may be constructed or maintained so that surface waters from such development are unreasonably collected or diverted onto lower properties, thereby causing substantial damage to lower properties.

2. **Stormwater runoff design standards.**
   a. To the extent practicable, all development shall conform to the natural contours and drainage patterns (watersheds) of the land, and retain existing patterns of flow;
   b. To the extent practicable, lot boundaries shall be made to coincide with natural drainage ways within subdivisions to avoid the creation of lots that can be built upon only by altering such natural drainage ways;
   c. All developments shall have a drainage system adequate to prevent the undue retention of surface water on the development site. Surface water shall not be regarded as unduly retained if:
      (1) The retention results from a deliberate approved sedimentation or storm water run-off control plan.
      (2) The retention is not substantially different in location or degree than in the site's pre-development stage, unless such retention presents a danger to health or safety.
   d. No surface water may be channeled or directed into a sanitary sewer;
   e. Whenever practicable, drainage systems shall coordinate with and connect to drainage systems or drainage ways on surrounding properties or streets; and
   f. Drainage swales in subdivisions are provided for in Section 8.2, Streets. Private roads and access ways within unsubdivided developments shall utilize curb and gutter and storm drains to provide adequate drainage if the grade of such roads or access ways is too steep to provide drainage in another manner or if other sufficient reasons exist to require such construction.
3. **Evaluation of detention needs.** Applicants for development approval shall evaluate detention needs for the development as follows:
   a. Except in certain situations, stormwater detention will be required on new development. The design standard for detention will be based upon peak flow reduction to predevelopment (existing) conditions for the 1-, 10-, 25-, and in some cases, the 100-year return frequency storm events.
   b. Detention requirements may be reduced or eliminated by the Town Engineer upon a showing that installation of reduced or eliminated detention facilities will not create adverse downstream impacts.
4. **Stormwater control structure requirements.**
   a. All stormwater control structures and any modifications thereto, shall be designed and sealed by a North Carolina registered professional engineer, except such a structure may be designed by a registered land surveyor, where the runoff consists solely incidental drainage within a subdivision, as provided in North Carolina General Statutes 89(c)-3(7); and

b. All water quality controls shall use retention ponds, bioretention areas or other approved devices, as a primary treatment system. All approved devices shall be designed for specific pollutant removal according to modeling techniques approved by the North Carolina Division of Environmental Management. Specific requirements for these systems shall be in accordance with the North Carolina Division of Environmental Management design criteria or otherwise as approved by the Town Engineer.

c. All water quantity controls shall use detention ponds, bioretention areas or other devices or systems as approved by the Town Engineer. Detention facilities shall be designed using the design procedures set forth in Elements of Urban Stormwater Design, Malcolm, or other design procedures as approved by the Town Engineer.

d. A maintenance and operations plan, acceptable to the Town Engineer, shall be developed for each water quantity and water quality control structure proposed as part of the development.

5. **Maintenance of retention facilities and private streets.**

a. All water quality controls and devices which are installed solely to provide 85 percent total suspended solid (TSS) removal in order to satisfy the water supply watershed protection section of the UDO shall be maintained by the Town of Garner. Such maintenance by the Town will be limited to the water quality treatment function of the stormwater control system. Maintenance activities not related to water quality such as aesthetics, nuisance control, etc. will not be the responsibility of the Town but shall be the responsibility of the owner. The developer shall deed, dedicate or grant sufficient easement or right-of-way to allow for the access and maintenance of the water quality control system.

b. All water quality controls and devices which are installed to meet the nitrogen reduction requirements of this UDO shall maintained by the property owner or the person or persons responsible for the maintenance of the property. In the case of residential or commercial subdivisions, a home owners association or merchants association shall be established in order to identify the person or persons responsible for the maintenance of the property. The developer shall deed, dedicate, or grant sufficient easement or right-of-way to for the access and inspection of the water quality control system.

c. All water quantity controls and devices shall maintained by the property owner or the person or persons responsible for the maintenance of the property. In the case of residential or commercial subdivisions, a home owners association or merchants association shall be established in order to identify the person or persons responsible for the maintenance of the property. The developer shall deed, dedicate, or grant sufficient easement or right-of-way to for the access and inspection of the water quality control system.

D. **Watershed Conservation Buffer Areas.**

1. **Areas defined.**

a. The development on lots abutting or including Lake Benson or any of the streams identified in this section shall be limited by an adjacent buffer area.

b. This section shall apply to the following streams and lakes, including all branches of the identified streams to the limit of the intermittent and perennial streams as defined by the Neuse River Riparian Buffer rule, and if a future extraterritorial expansion includes any stream having a designated 100-year floodplain, such stream shall automatically be included as if listed below:

Stream Name	
Adams Branch	Mahler's Creek
Bagwell Branch	Reedy Branch
Big Branch #1	Reedy Creek Tributary
Big Branch #2, Mill Creek	Swift Creek
Big Branch Tributary	Walnut Creek
Buck Branch	White Oak Creek (see c. below)
Echo Creek	Yates Branch
Hilliard Creek	

c. The Watershed Conservation Buffer Area requirements for nonresidential development shall not apply for property located adjacent to White Oak Creek. This exemption shall not apply to residential development to adjacent to White Oak Creek. In such cases where residential development adjoins White Oak Creek, a Watershed Conservation Buffer Area shall be required according to the provisions of this section.

2. **Limitations on development in Conservation Buffer Areas.**

a. Development is prohibited in both the floodplain and the Watershed Conservation Buffer Areas for streams described in paragraph 1., above.

b. Development within and adjacent to the Watershed Conservation Buffer Areas shall be subject to the following criteria:

(1) Buffer width: Along the lakefront or streams within 5,000 feet of the Lake Benson shoreline, the buffer area shall include the 100-year floodplain plus an area whose width is proportional to its distance from Lake Benson, beyond the edge of the floodplain and parallel to the stream, as follows:

Distance from Lake Benson	**Buffer**
Lakefront and within 1,000 feet of lakefront	100 feet
100 to 2,000 feet from lake	90 feet
2,001 to 3,000 feet from lake	80 feet
3,001 to 4,000 feet from lake	70 feet
4,001 to 5,000 feet from lake	60 feet

(2) Along other identified streams and along streams beyond 5,000 feet from the lakefront, the buffer area shall include the 100-year floodplain plus a 50-foot wide area beyond the edge of the floodplain and parallel to the stream; and

(3) If no floodplain exists on the portion of a stream in question, the buffer shall be considered to be the calculated 100-year storm high water mark based upon a built-out condition upstream.

(4) Application of a conservation buffer shall not diminish other riparian buffer requirements.

c. Buffers from which the vegetation cover has been removed shall be provided with ground cover. Crossings by streets, bridges, utilities or other facilities shall be kept at a minimum and their negative impact minimized.

d. Residential accessory buildings, on lots of record prior to March 1984, may encroach into designated conservation buffers provided that:

(1) Such buildings not exceed 25 percent of the area of the principal building served; and

(2) Such accessory building shall not be located in any designated floodway.

e. Placement of an accessory building in a flood fringe area shall meet all applicable construction requirements; and the area of the lot covered by impervious surfaces, including the accessory building, shall not exceed 25 percent.

f. Buffers shall be protected by easements and shall remain, where possible, in private ownership.

3. **Land disturbance limits in Conservation Buffer Areas.**

a. No land-disturbing activities (including agricultural uses) are permitted within the Conservation Buffer Areas, except for the following uses:

(1) Street and associated facilities;

(2) Greenways and pedestrian paths; and

(3) Utility mains, pump stations and drainage facilities which comply with Town of Garner standards.

b. Within areas of the Lake Benson Conservation District not constituting the Conservation Buffer Areas, site disturbance on existing lots of record as of March 1984, except for agricultural use, including the cutting of trees, shall be permitted only pursuant to a removal plan approved by the Planning Director and the cutting of trees shall not exceed five times the actual impervious surface area planned for each site.

c. Throughout the Lake Benson Conservation District and Conservation Buffer Areas, strict compliance with the Wake County Erosion and Sedimentation Control Ordinance is required. No construction is allowed in classes of soils which have severe erosion potential, or are classified as being otherwise unsuitable for urban uses, under the Urban Suitability Soil Groups in the Planning Guide to the Wake County Soil Survey (1970), unless the developer can provide either of the following:

(1) An independent (sealed) engineering study which documents that the soils to be developed are not in the stated erosion categories, or

(2) Erosion prevention control measures that satisfy the Wake County Erosion and Sedimentation Control Ordinance.

E. **Nitrogen reduction.**

1. **Stormwater requirements for nitrogen control.** All new development shall be meet the requirements of the "The Town of Garner Stormwater Program for Nitrogen Control." The major requirements that must be met by new development, as contained in the stormwater program, are as follows:

a. New development shall comply with the requirements for protecting and maintaining riparian buffers as specified in the Riparian Buffer Rule 15A NCAC 2B.0233.

b. As required by the Neuse Stormwater Rule 15A NCAC 2B.0235 the nutrient load contributed by new development activities is limited to 3.6 pounds per acre per year (lbs/ac/yr) of nitrogen loading. Development shall have the option of partially offsetting projected nitrogen loads by funding wetland or riparian area restoration through the North Carolina Wetland Restoration Program. However, the total nitrogen loading rate cannot exceed 6.0 lbs/ac/yr for residential development or 10.0 lbs/ac/yr for nonresidential development. Best management practices (bmps) provided for in the stormwater program must be used to reduce nitrogen loading to the 6.0 and 10.0

limits and may be used to reduce nitrogen loading to the 3.6 limit. Maintenance of any bmps installed will be the responsibility of the development.

c. Except in certain situations, stormwater detention will be required on new development. The design standard for detention will be based upon peak flow reduction to predevelopment (existing) conditions for the 1-, 10-, 25-, and in some cases, the 100-year return frequency storm events.

F. **Water supply watershed protection.** The water supply watershed protections areas described below are identified on the Town of Garner Watershed Protection Map.

1. **Water supply watershed protection areas.**

a. **Swift Creek Watershed Protection Area.** The Town of Garner Swift Creek-Lake Benson public water supply watershed protection area (also variously known as the Swift Creek Watershed, Lake Benson Watershed, or Watershed Protection Area) is that portion of the land area within the present Town of Garner zoning jurisdiction designated on the Town of Garner Watershed Protection Map.

b. **Lake Benson Conservation District.** This district constitutes what the state refers to as the critical area north of Lake Benson. Additional information is included in the zoning overlay district in Section 4.9.

c. **Conditional use districts.** Conditional use district SB-C22 and conditional use district R-12-C53 and R1 2PR-C54. These constitute the portion of the Swift Creek critical area west of Lake Benson which is within the Town zoning limits.

2. **Exemptions.** The water supply watershed protection ordinances of the Town of Garner shall apply to the above-described land area, except, however that the watershed protection ordinances shall not apply to:

a. Existing development, although they shall apply to future additions, expansion, repair, or reconstruction of existing development which are of such nature to create additional impervious surface; or

b. To the development of a single existing lot for single-family residential purposes; although they shall apply to single-family residential development of multiple contiguous lots with common ownership.

3. **Impervious surface limits.**

a. **Swift Creek Watershed Protection Area.** Within the Garner Swift Creek Watershed, impervious limits may not exceed 12 percent of land area, per lot, except that impervious limits may be a maximum of 70 percent, known as the high density option, where the stormwater runoff from a one inch rainfall event is retained by retention ponds, or other approved devices designed to achieve 85

percent total suspended solids as approved by the North Carolina Division of Environmental Management and the Town of Garner, constructed in accordance with best management practices.

b. **Lake Benson Conservation District.** Within that part of the Swift Creek Watershed Protection Area designated as the Lake Benson Conservation District, the impervious surface may not exceed six percent of land area per lot, except where runoff as described above is retained by retention ponds or other approved devices constructed pursuant to best management practices in which case it may not exceed, but may be a maximum of 35 percent. Performance standards are illustrated in the table captioned Lake Benson/Swift Creek Watershed Performance Standards.

c. **Conditional use districts.** Within that area subject to CUD SB-C-22 or CUD R-l2PR-C29, the impervious surface limits set therein, of 12 percent to 30 percent with retention ponds, or other approved devices, retaining the runoff as described and constructed pursuant to the best management practices in the area previously classified by the Swift Creek Land Management Plan as suburban new and 12 percent to 70 percent with retention ponds, or other approved devices, retaining the runoff as described above and constructed pursuant to the best management practices in the area classified in the Swift Creek Land Management Plan as urban new, shall apply pursuant to those Ordinances No. (1988) 2293 and (1989) 2370.

d. **Watershed performance standards.** Watershed performance standards are contained in the table below.

	Maximum Impervious Surface			
		High Density Option*		
Area	**Low Density Option**	**Residential**	**Nonresidential**	**Maximum Residential Density**
Swift Creek Watershed (except areas listed below)	12 percent	70 percent	70 percent	Controlled by underlying zoning
Lake Benson Conservation District (Critical Area)	6 percent	35 percent	35 percent	2.5 DU/Acre
Conditional Use District SB-C22 and R-12PR-C29	12 percent	30 percent	70 percent	2.0 DU/Acre
Conservation Buffer Areas	See Section 4.8			

*** Note: High density option requires construction of on-site retention ponds designed to retain runoff from a one-inch rainfall event or other approved devices.**

e. **Front yards.** Impervious surface shall occupy no more than 40 percent of the required front yard as established in.

G. **Swift Creek Conservation District.**

1. **Location.** This district constitutes an environmentally sensitive area located in the Swift Creek Watershed below Lake Benson as illustrated on the Town of Garner Official Zoning Map. Additional information is provided in Section 4.13 regarding zoning overlay districts.

2. **Use regulations.** The uses permitted or prohibited in the Swift Creek Conservation District shall be those uses permitted or prohibited in the underlying zoning district that apply to a particular parcel of land.

3. **Exempt from regulations.** All parcels of land that fall within the boundaries of the Swift Creek Conservation District which are identified on the Town of Garner Official Zoning Map as being exempt properties, shall not be subject to provisions of this overlay district.

4. **Existing development, redevelopment, and expansions.** Existing development (residential or non-residential) is not subject to the requirements of this section; existing development shall be considered to be existing any impervious surfaces, or for which plan or permit approval has been officially granted; or where a vested right has been established, as of May 31, 2005. Redevelopment or expansion of any existing non-residential development shall be subject to the requirements of this section; however, the impervious surface coverage of the existing development is not required to be included when applying the impervious surface coverage limits of this section.

5. **Development standards.** The following standards shall apply for new residential and non-residential development in Swift Creek Conservation District:

(1) The standards of both the Swift Creek Conservation District and the underlying zoning district shall apply to each parcel. Where the standards of the Overlay District and the underlying district differ, the more restrictive standards shall control development in new projects created after effective date of the Swift Creek Conservation District which is May 31, 2005.

(2) The maximum impervious surface coverage of the new residential development projects and new non-residential development projects, which are defined as those projects approved or permitted after the effective date of the Swift Creek Conservation District are as follows:

a. New single family detached residential subdivision development projects shall be limited to a maximum of 30 percent total impervious surface area.

b. New multi-family residential development projects defined to include townhomes, condominiums, apartments, or other at-

tached multi-family housing units as determined by the Planning Director, shall be limited to a maximum of 50 percent total impervious surface area.

c. New non-residential development projects shall be limited to a maximum of 70 percent of total of impervious surface area.

H. **Floodplain management.**

Commentary: The stormwater management provisions apply seven sets of rules, covering the areas of erosion control, stormwater quantity, conservation or protected buffers, nitrogen reduction, water supply watershed protection, environmentally sensitive watershed protection and floodplain management. The Town of Gamer adopted floodplain regulations to be consistent with federal and state requirements. However, Town regulations specifically prohibit development in the 100-year floodplain and in conservation or protected buffers areas except as noted in Section 7.2.D.1(c).

Often, more than one element of the stormwater provisions will apply to an individual property. Questions about the application of these provisions should be discussed with the Town Engineer.

1. **Statutory authorization, findings of fact, purpose and objectives.**

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 to local governmental the responsibility units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

Therefore, the Board of Aldermen of the Town of Garner North Carolina, does ordain the following findings of fact:

(1) The flood prone areas within the jurisdiction of Town of Garner 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) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.

B. **Statement of purpose.** It is the purpose of this ordinance to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

(1) Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;

(2) Require that uses vulnerable to floods, including facilities that 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 floodwaters;

(4) Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and

(5) Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.

C. **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; and

(7) To ensure that potential buyers are aware that property is in a special flood hazard area.

2. **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 its most reasonable application. The definitions listed below apply to Section 7.2H only.

"*Accessory structure (appurtenant structure)*" means a structure 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.

"*Appeal*" means a request for a review of the floodplain administrator's interpretation of any provision of this ordinance.

"*Area of shallow flooding*" means a designated Zone AO on a community's flood insurance rate map (FIRM) with base flood depths determined to be

from one to three feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

"*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 one 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 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 federal or state or other source using FEMA approved engineering methodologies. This elevation, when combined with the "freeboard", establishes the "regulatory flood protection elevation".

"*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.

"*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 lowest elevated floor 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:

(1) The overflow of inland or tidal waters; and/or

(2) The unusual and rapid accumulation of runoff of surface waters from any source.

"*Flood boundary and floodway map (FBFM)*" means an official map of a community, issued by the federal emergency management agency, on which the special flood hazard areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the flood insurance rate map (FIRM).

"*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 hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued by the federal emergency management agency. The flood insurance study report includes flood insurance rate maps (FIRMs) and flood boundary and floodway maps (FBFMs), if published.

"*Flood prone area*" see "Floodplain".

"*Floodplain*" means any land area susceptible to being inundated by water from any source.

"*Floodplain administrator*" is the individual appointed to administer and enforce the floodplain management regulations.

"*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 flood damage to real estate or improved real property, water and sanitation facilities, structures, and 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 one 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) to account for the many unknown factors that could contribute to flood heights greater that 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.

"*Hazardous waste facility*" means, as defined in NCGS 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

"*Highest adjacent grade (HAG)*" means the highest natural elevation of the ground surface, prior to construction, immediately 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 U.S. 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 U.S. 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 or patio slab immediately next to the building, or deck support, after completion of the building.

"*Lowest floor*" means lowest floor 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".

"*Manufactured home park* or *subdivision*" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"*Market value*" means the building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (actual cash value); or adjusted tax assessed values.

"*Mean sea level*" means, for purposes of this ordinance, 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 the community's flood damage prevention 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 one 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) Four hundred 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 designated as Zone A1—A30, AE, A, A99 or AO. (Alternative acceptable language for reference level) "Reference level" is the bottom of the lowest horizontal structural member of the lowest floor, excluding the foundation system, for structures within all special flood hazard areas.

"*Regulatory flood protection elevation*" means the "base flood elevation" plus the "freeboard". In "special flood hazard areas" where base flood elevations (BFEs) have been determined, this elevation shall be the BFE plus two feet of freeboard. In "special flood hazard areas" where no BFE has been established, this elevation shall be at least two feet above the highest adjacent grade.

"*Remedy a violation*" means to bring the structure or other development into compliance with state and 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 any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.

"*Solid waste disposal facility*" means, as defined in NCGS 130A-290(a)(35), any facility involved in the disposal of solid waste.

"*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 one percent or greater chance of being flooded in any given year, as determined in Section 7.2H(3)b 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 on a site, such as the pouring of slab or footings, the installation of piles, the 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, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

"*Substantial damage*" means damage of any origin sustained by a structure during any one-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. (The last sentence is OPTIONAL but required for eligibility for increased cost of compliance (ICC) benefits for repetitive losses.)

"*Substantial improvement*" means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost 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 7.2H(3) and 7.2H(4) are 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 riverine 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.

3. **General provisions.**

a. **Lands to which this ordinance applies.** This ordinance shall apply to all special flood hazard areas within the jurisdiction, including extra-territorial jurisdictions (ETJs) if applicable, of Town of Garner and within the jurisdiction of any other community whose governing body agrees, by resolution, to such applicability.

b. **Basis for establishing the special flood hazard areas.** The special 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.

c. **Establishment of 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 determined in accordance with Section 7.2(4)c of this ordinance.

d. **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 ordinance and other applicable regulations.

e. **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.

f. **Interpretation.** In the interpretation and application of this ordinance, all provisions shall be:

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the governing body; and

(3) Deemed neither to limit nor repeal any other powers granted under state statutes.

g. **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 or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Town of Garner 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.

h. **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 $50.00 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 Town of Garner from taking such other lawful action as is necessary to prevent or remedy any violation.

4. **Administration.**

a. **Designation of Floodplain Administrator.** The Town Engineer, hereinafter referred to as the "Floodplain Administrator", is hereby appointed to administer and implement the provisions of this ordinance.

b. **Floodplain development application requirements.**

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. The following items shall be presented to the floodplain administrator to apply for a floodplain development permit:

(1) 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 as delineated on the FIRM or other flood map as determined in Section 7.2H(3)b or a statement that the entire lot is within the special 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 7.2H(3)b the boundary of the floodway(s) or non-encroachment area(s) as determined in Section 7.2H(3)b;

(d) The base flood elevation (BFE) where provided as set forth in Section 7.2H(3)b; 7.2H(4)e(11 and 12) or 7.2H(5)d;

(e) The old and new location of any watercourse that will be altered or relocated as a result of proposed development;

(f) Certification of the plot plan by a registered land surveyor or professional engineer.

(2) Proposed elevation, and method thereof, of all development within a special 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 AO will be flood-proofed; and

(c) Elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed;

(3) 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.

(4) 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 7.2H(5)(b)(4), when solid foundation perimeter walls are used in Zones A, AO, AE, and A1—30;

(5) Usage details of any enclosed areas below the regulatory flood protection elevation.

(6) 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;

(7) 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.)

(8) Documentation for placement of recreational vehicles and/or temporary structures, when applicable, to ensure Section 7.2H(5)b(6 and 7) of this ordinance are met.

(9) 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.

c. **Permit requirements.** The floodplain development permit shall include, but not be limited to:

(1) A description of the development to be permitted under the floodplain development permit.

(2) The special flood hazard area determination for the proposed development per available data specified in Section 7.2H(3)b.

(3) The regulatory flood protection elevation required for the reference level and all attendant utilities.

(4) The regulatory flood protection elevation required for the protection of all public utilities.

(5) All certification submittal requirements with timelines.

(6) A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, as applicable.

(7) The flood openings requirements, if in Zones A, AO, AE or A1—30.

d. **Certification requirements.**

(1) 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) 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.

(2) 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.

(3) If a manufactured home is placed within Zone A, AO, AE, or A1—30 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per Section 7.2H(5)(b)3.

(4) 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.

(5) Certification exemptions. The following structures, if located within Zone A, AO, AE or A1—30, are exempt from the elevation/floodproofing certification requirements specified in item (a) of this subsection:

(a) Recreational vehicles meeting requirements of Section 7.2H(5)b(6)a;

(b) Temporary structures meeting requirements of Section 7.2H(5)b(7); and

(c) Accessory structures less than 150 square feet meeting requirements of Section 7.2H(5)b(8).

e. **Duties and responsibilities of the Floodplain Administrator.** The Floodplain Administrator shall perform, but not be limited to, the following duties:

(1) Review all floodplain development applications and issue permits for all proposed development within special flood hazard areas to assure that the requirements of this ordinance have been satisfied.

(2) Advise permittee that additional federal or state permits (wetlands, endangered species, 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.

(3) Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insur-

ance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the federal emergency management agency (FEMA).

(4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(5) Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of Section 7.2H(5)e are met.

(6) Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) and all attendant utilities of all new or substantially improved structures, in accordance with Section 7.2H(4)d.

(7) Obtain actual elevation (in relation to mean sea level) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with Section 7.2H(4)d.

(8) Obtain actual elevation (in relation to mean sea level) of all public utilities in accordance with Section 7.2H(4)d.

(9) When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Section 7.2H(4)d and Section 7.2H(5)b(2).

(10) Where interpretation is needed as to the exact location of boundaries of the special 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.

(11) When base flood elevation (BFE) data has not been provided in accordance with Section 7.2H(3)b, 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 7.2H(5)d(2)b, in order to administer the provisions of this ordinance.

(12) When base flood elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with Section 7.2H(3)b, 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.

(13) When the lowest ground elevation of a parcel or structure in a special flood hazard area is above the base flood elevation, 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.

(14) Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection.

(15) 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.

(16) 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 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.

(17) 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.

(18) 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.

(19) Follow through with corrective procedures of Section 7.2H(4)f.

(20) Review, provide input, and make recommendations for variance requests.

(21) 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 7.2H(2)b of this ordinance, including any revisions thereto including letters of map change, issued by FEMA. Notify state and FEMA of mapping needs.

(22) Coordinate revisions to FIS reports and FIRMs, including letters of map revision based on fill (LOMR-F) and letters of map revision (LOMR).

f. **Corrective procedures.**

(1) **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.

(2) **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 floodplain administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

(a) That the building or property is in violation of the flood damage prevention ordinance;

(b) That a hearing will be held before the floodplain administrator at a designated place and time, not later than ten 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,

(c) That following the hearing, the floodplain administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as appears appropriate.

(3) **Order to take corrective action:** If, upon a hearing held pursuant to the notice prescribed above, the floodplain administrator shall find that the building or development is in violation of the flood damage prevention ordinance, they shall issue 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 floodplain administrator finds that there is imminent danger to life or other property, they may order that corrective action be taken in such lesser period as may be feasible.

(4) **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 floodplain administrator and the clerk within ten days following issuance of the final order. In the absence of an appeal, the order of the

floodplain 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.

(5) **Failure to comply with order:** If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the governing body following an appeal, the owner shall be guilty of a misdemeanor and shall be punished at the discretion of the court.

g. **Variance procedures.**

(1) The Board of Adjustment as established by the Town of Garner, hereinafter referred to as the "appeal board", shall hear and decide requests for variances from the requirements of this ordinance.

(2) Any person aggrieved by the decision of the appeal board may appeal such decision to the Court, as provided in Chapter 7A of the North Carolina General Statutes.

(3) Variances may be issued for:

(a) 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;

(b) Functionally dependant facilities if determined to meet the definition as stated in Section 7.2H(2) of this ordinance, provided provisions of Section 7.2H(4)g(9)b and e have been satisfied, and such facilities are protected by methods that minimize flood damages and;

(c) Any other type of development, provided it meets the requirements stated in this section.

(4) In passing upon variances, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

(a) The danger that materials may be swept onto other lands to the injury of others;

(b) The danger to life and property due to flooding or erosion damage;

(c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(d) The importance of the services provided by the proposed facility to the community;

(e) The necessity to the facility of a waterfront location as defined under Section 7.2H(2) of this ordinance as a functionally dependant facility, where applicable;

(f) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

(g) The compatibility of the proposed use with existing and anticipated development;

(h) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(i) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

(k) 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.

(5) A written report addressing each of the above factors shall be submitted with the application for a variance.

(6) Upon consideration of the factors listed above and the purposes of this ordinance, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

(7) 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 $25.00 per $100.00 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.

(8) 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.

(9) Conditions for variances:

(a) Variances shall not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

(b) 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.

(c) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(d) Variances shall only be issued prior to development permit approval.

(e) Variances shall only be issued upon:

i. A showing of good and sufficient cause;

ii. A determination that failure to grant the variance would result in exceptional hardship; and

iii. 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.

(10) 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 provided that all of the following conditions are met.

(a) The use serves a critical need in the community.

(b) No feasible location exists for the use outside the special flood hazard area.

(c) The reference level of any structure is elevated or floodproofed to at least the regulatory flood protection elevation.

(d) The use complies with all other applicable federal, state and local laws.

(e) The Town of Garner 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.

5. **Provisions for flood hazard reduction.**

a. **General standards.** In all special flood hazard areas the following provisions are required:

(1) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.

(2) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(3) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.

(4) 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.

(5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(6) 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.

(7) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

(8) Any alteration, repair, reconstruction, or improvements to a structure, which is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance.

(9) Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing 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.

(10) New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted, except by variance as specified in Section 7.2H(4)g(10). 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 only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and certified according to Section 7.2H(4)d of this ordinance.

(11) All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.

(12) All subdivision proposals and other development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

(13) All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.

(14) All subdivision proposals and other 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.

(15) Fill material located within any 100-year floodplain used for a proposed development shall require certification by a professional engineer, supported by appropriate documentation, that such fill material will not raise the 100-year floodplain elevation on any upstream property during a base flood event.

b. **Specific standards.** In all special flood hazard areas where base flood elevation (BFE) data has been provided, as set forth in Section 7.2H(2), or Section 7.2H(4)e(11 and 12), the following provisions, in addition to Section 7.2H(5)a, are required:

(1) **Residential construction.** New construction and substantial homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section 7.2H(2) of this ordinance.

(2) **Non-residential construction.** New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section 7.2H(1) of this ordinance. Structures located in A, AE and A1—30 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with Section 7.2H(5)g(2). A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in Section 7.2H(4)d, along with the operational and maintenance plans.

(3) **Manufactured homes.**

(a) New or replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation, as defined in Section 7.2H(2) of this ordinance.

(b) Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by engineer certification, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to NCGS 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis 36 inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above 36 inches in height, an engineering certification is required.

(c) All enclosures or skirting below the lowest floor shall meet the requirements of Section 7.2H(3)b(4)(a), (b) and (c).

(d) An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the floodplain administrator and the local emergency management coordinator.

(4) **Elevated buildings.** Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

(a) 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), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;

(b) Shall be constructed entirely of flood resistant materials below the regulatory flood protection elevation;

(c) Shall include, in Zones A, AO, AE, and A1—30, 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:

i. A minimum of two flood openings on different sides of each enclosed area subject to flooding;

ii. The total net area of all flood openings must be at least one square inch for each square foot of enclosed area subject to flooding;

iii. If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;

iv. The bottom of all required flood openings shall be no higher than one foot above the adjacent grade;

v. 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

vi. 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.

(5) **Additions/improvements.**

(a) 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:

i. Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

ii. A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

(b) 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.

(c) 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:

i. Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.

ii. A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

(d) 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.

(6) **Recreational vehicles.** Recreational vehicles shall either:

(a) 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

(b) Meet all the requirements for new construction.

(7) **Temporary non-residential structures.** Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the floodplain administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the floodplain administrator for review and written approval;

(a) A specified time period for which the temporary use will be permitted. Time specified may not exceed three months, renewable up to one year;

(b) The name, address, and phone number of the individual responsible for the removal of the temporary structure;

(c) The time frame prior to the event at which a structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);

(d) A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and

(e) Designation, accompanied by documentation, of a location outside the special flood hazard area, to which the temporary structure will be moved.

(8) **Accessory structures.** When accessory structures (sheds, detached garages, etc.) are to be placed within a special flood hazard area, the following criteria shall be met:

(a) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);

(b) Accessory structures shall not be temperature-controlled;

(c) Accessory structures shall be designed to have low flood damage potential;

(d) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;

(e) Accessory structures shall be firmly anchored in accordance with Section 7.2H(5)a(1);

(f) All service facilities such as electrical shall be installed in accordance with Section 7.2H(5)a(4); and

(g) Flood openings to facilitate automatic equalization of hydrostaticflood forces shall be provided below regulatory flood protection elevation in conformance with Section 7.2H(5)b(4)(c).

(h) An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures in accordance with Section 7.2H(4)d.

c. **Reserved.**

d. **Standards for floodplains without established base flood elevations.** Within the special flood hazard areas designated as approximate zone and established in Section 7.2H(3)b, where no base flood elevation (BFE) data has been provided by FEMA, the following provisions, in addition to Section 7.2H(5)(a and b), shall apply:

(1) No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of 20 feet each side from top of bank or five times the width of the stream, 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 Article 4, Section E(11 and 12).

(b) All subdivision, manufactured home park and other development proposals shall provide base flood elevation (BFE) data if development is greater than five acres or has more than 50 lots/manufactured home sites. Such base flood elevation (BFE) data shall be adopted by reference per Section 7.2H(3)b 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 7.2H(2).

e. **Standards for Riverine Floodplains with BFE but without established floodways or non-encroachment areas.** Along rivers and streams where BFE data is provided but neither floodway nor non-encroachment areas are identified for a special flood hazard area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

(a) Standards outlined in Section 7.2H(5)a and b; and

(b) Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

f. **Floodways and non-encroachment areas.** Areas designated as floodways or non-encroachment areas are located within the special flood hazard areas established in Article 3, Section B. 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 Section 7.2H(3)b, shall apply to all development within such areas:

1. Construction within floodways restricted.

a. No development, including structures, fences, fill or storage of materials or equipment, are permitted within a floodway or the conservation buffer areas of specified streams, as defined above, except the following:

(1) Pasture, forestry, wildlife sanctuary, game farm and similar agricultural, wildlife and related uses.

(2) Lawns, gardens, play areas, and similar areas.

(3) Golf courses, tennis courts, archery ranges, picnic grounds, parks, hiking or horseback riding trails, open space and similar private and public recreational uses, provided that golf courses must have retention ponds.

(4) Public water, stormwater or sewer infrastructure and highways.

(5) No artificial obstruction may be located within any floodway, except as provided above. For purposes of this section, an artificial obstruction is any obstruction, other than a natural obstruction, that can reduce the floodcarrying capacity of a stream, or may accumulate debris and thereby reduce the floodcarrying capacity of a stream. A natural obstruction includes any rock, tree, or analogous natural matter located within the floodway by a non-human cause.

(6) The use of fill materials within a floodway is prohibited unless certification by a registered professional engineer is provided demonstrating that no increase in flood levels during a base flood will result. Fill dirt within a floodplain shall be adequately stabilized to withstand the erosive force of the base flood.

(7) No new building construction or substantial improvement of an existing building may take place within any floodway.

2. No encroachments, including fill, new construction, substantial improvements and other developments 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 floodplain 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.

3. If Section 7.2H(5)F(2)(e) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.

4. No 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 7.2H(5)(b)(3); and

(b) The no encroachment standard of Section 7.2H(5)F(2)(a).

g. **Standards for areas of shallow flooding (Zone AO).** Located within the special flood hazard areas established in Section 7.2H(3)b, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Section 7.2H(5)a, all new construction and substantial improvements shall meet the following requirements:

1. The reference level shall be elevated at least as high as the depth number specified on the flood insurance rate map (FIRM), in feet, plus a freeboard of two feet, above the highest adjacent grade; or at least two feet above the highest adjacent grade plus a freeboard of two feet if no depth number is specified.
2. Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Section 7.2H(5)(g)(2) so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required as per Section 7.2H(4)d and Section 7.2H(5)(b)2.
3. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(Ord. No. 3397, § 1, 4-18-06)

7.3. Outdoor storage and display.

A. **Limited outside display of seasonal merchandise.** In NC, CR and I-1, limited outside display of seasonal merchandise is permitted provided:

1. Fire lanes and vehicular accessways are not obstructed or encroached upon.
2. If a pedestrian walkway exists along the entrance frontage of the business, a minimum four-foot wide pedestrian walkway is maintained.
3. The total square footage of outside display area is ten percent or less of the business's interior sales square footage.
4. Sales transactions take place inside the business building.

7.4. Off-street parking and loading standards.

A. Number of parking spaces required.

1. All developments shall provide a sufficient number of parking spaces to accommodate the number of vehicles likely to be attracted to the development. However, in an effort to minimize impervious surfaces that can cause stormwater quantity and quality problems, the number of parking spaces needed should not be based upon rare seasonal peak demands.
2. The presumptions established by this section are that:
   a. A development must comply with the parking standards set forth in this section to satisfy the requirement stated in paragraph 1. above; and
   b. Any development that does meet these standards is in compliance. However, the table of parking standards is only intended to establish a presumption and should be flexibly administered, as provided in paragraph C.
3. The table of parking standards represents both the typical minimum number of parking spaces required and the maximum number of parking spaces allowed. For those developments desiring additional parking beyond that required by the parking standards, the total number of parking spaces provided may be increased by up to ten percent above that recommended by the parking standards. If additional parking, above the ten percent increase, is still needed, the additional parking shall be constructed of permeable pavement or shall be drained directly to a bioretention area or other approved water quality BMP as approved by the Town of Garner.
4. Uses in the table of parking requirements are keyed to the Section 5.1 use table. If application of this table results in a fractional space, any fraction of one-half or less may be disregarded, while any fraction in excess of one-half be counted as one parking space.
5. The number of parking spaces in lots of ten or more spaces may be reduced by one if the developer provides a bicycle rack offering a secure parking area for at least five bicycles.

6. Accessible parking.
   a. Accessible parking spaces shall be provided in compliance with the following table and shall be identified with above-ground signs as specified in General Statutes 20-37.6 and 136-30, the North Carolina Department of Transportation Manual on Uniform Traffic Control and Chapter 4 of the North Carolina Accessibility Code, as amended.

Total Spaces in Lot	**Minimum Number of Accessible Spaces**
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	Two percent of total
1,001 and over	20 plus 1 for each 100 over 1,000

   b. One in every eight (1 in 8) accessible parking spaces, or a minimum of one (whichever is the greater number), shall be van accessible and shall be identified [by] the words "van accessible" on an above-ground sign. Van accessible parking spaces shall be open to all vehicles properly identified in compliance with General Statute 20-37.6.
7. Whenever a building is constructed, in whole or in part, for low parking need uses, the building should be located so that sufficient usable space remains on the lot to add the additional parking spaces that would be required to convert the use of the building entirely to the new use classifications. Whenever a building is proposed for purposes that require a lesser number of parking spaces than other uses to which the building might well be put at some future date, the Planning Director should send to the developer a certified letter explaining that sufficient space should be left on the lot to add parking spaces at a later time if required.

B. **Table of parking requirements.** The Board of Aldermen recognizes that the table of parking requirements cannot cover every possible situation that may arise. Therefore, in cases not specifically covered, the permit-issuing authority is authorized to determine the parking requirements, using this table as a guide.

TABLE OF PARKING REQUIREMENTS		
Use Category	**Specific Use**	**Requirement**
Household Living	Single-Family Detached	2 spaces per unit, plus 1 space per room rented
	Residential Cluster	2 spaces per unit, plus 1 space per room rented
	Two-Family Dwelling	2 spaces for each unit, except that one-bedroom units require only 1 space
	Townhouse (fee simple or condominium)	2 spaces for each unit, plus 1 additional space for ever 4 uses in the development
	Multifamily Dwelling	1½ spaces for each one-bedroom unit; 2 spaces for each two-bedroom unit; 2 ½ spaces for each unit with three or more bedrooms, plus one additional space for every four units in the development.
	Upper-Story Residential	2 spaces per unit
	Manufactured Home	2 spaces per unit
	Modular Home	2 spaces per unit, plus 1 space per room rented
	Security or Caretaker's Quarters	2 spaces per unit
Group Living	Family Care Home	1 space per 3 beds
	Group Care Home	2 spaces for every 5 beds, except for uses exclusively serving children under 16, in which case 1 space for every 3 beds
	Intermediate Care Home	1 space for every two employees on maximum shift and 1 space for every 3 beds
	Other	1 space per 2 bedrooms and 1.5 spaces per employee
Community Service	Community Center	1 space per 300 square feet
	Library, Museum, Art Gallery, Art Center	1 space per 300 square feet
	Other	1 space per 200 square feet of gross floor area

TABLE OF PARKING REQUIREMENTS		
Use Category	**Specific Use**	**Requirement**
Day Care	Day Care Center	1 space per employee plus 1 space per 8 clients enrolled
Educational Facilities	Business Schools	5 spaces per classroom or office
	College/University	5 spaces per classroom or office
	Schools, Public/Private	2 spaces per classroom or office in elementary schools; 5 spaces per classroom or office in high schools
	Trade/Vocational	5 spaces per classroom or office
Government Facilities	Ambulance Service, Rescue Squad, Police Station	1 space per 200 square feet of gross floor area
	Prison or Jail	1 per employee plus 1 visitor space per 10 inmates
	Other	1 space per 300 square feet of gross floor area
Health Care	Continuing Care Facility	1 space per employee on maximum shift plus 1 visitor space per 5 beds
	Hospital	2 spaces per bed
	Medical Clinic	1 space per 150 feet of gross floor area
	Other	1 space per 200 square feet of gross floor area
Institutions	Group Care Facility	1 per 3 beds
	Handicapped Institution	1 per 3 beds
	Intermediate Care institution	1 space for every two employees on maximum shift and 1 space for every 3 beds
	Mental Health Facility, Nursing Home	1 space for every two employees on maximum shift and 1 space for every 3 beds
	Other	1 space for every two employees on maximum shift and 1 space for every 3 beds
Parks and Open Space	Cemetery	1 space per 50 internment plots
	Public Park	2 per acre, plus 1 per 250 square feet of developed park facility
	Public Swimming Pool, Tennis Courts, Golf Course	1 space for every 3 persons to be normally accommodated in the establishment, 5 per tennis court, and 4 per hole
	Other	2 per acre, plus 1 per 250 square feet of developed park facility

TABLE OF PARKING REQUIREMENTS		
Use Category	**Specific Use**	**Requirement**
Passenger Terminal	Bus Passenger Terminal	1 per 300 square feet
	Taxicab or Limousine Operations or Facility	1 per employee, plus 2 visitor spaces
Religious Institution		1 space for every 4 seats or 1 space for every 40 square feet in the portion of the church building to be used for services
Utilities	Minor Utility	None
	Major Utility	1 per facility, plus 1 additional per 250 square feet of gross floor area and 1 per fleet vehicle
	Telecommunication Facility	1 for service vehicle
Entertainment	Golf Course or Country Club, Private	1 space per 200 square feet of area within enclosed building, plus 1 space for every 3 persons that the outdoor facilities are designed to accommodate when used to the maximum capacity
	Gym, Spa, Indoor Tennis Court or Pool, Private	1 space for every 3 persons that the facilities are designed to accommodate when fully utilized, plus 1 space per 200 square feet of gross floor area used in a manner not susceptible to such calculation
	Horse Stables	1 space per 2 horses at maximum capacity
	Indoor Entertainment Facility	1 space for every 3 persons that the facilities are designed to accommodate when fully utilized (if they can be measured in such a fashion) plus 1 space per 200 square feet of gross floor area used in a manner not susceptible to such calculation
	Outdoor Athletic Facility, Private	1 per 3 fixed seats, plus 1 per 25 square feet of gross floor area of exhibit or portable seating space.
	Sexually Oriented Business	1 per 100 square feet of gross floor area, or 1 per each 4 permanent seats, plus 1 space per 200 square feet of gross floor area
	Theater	1 space for every four seats
	Theater, Drive-In	1 space per speaker outlet
	Water Slide	1 space for every 3 persons that the facilities are designed to accommodate when fully utilized
	Other	1 space for every 200 square feet of gross floor area

TABLE OF PARKING REQUIREMENTS		
Use Category	**Specific Use**	**Requirement**
Office	Medical Office	1 space for every 200 square feet of gross floor area
	Other	1 space for every 300 square feet of gross floor area
Overnight Accommodations	Bed and Breakfast	1 space per room plus 1 space for every 2 employees on the maximum shift
	Extended Stay Facility	1 space per room plus 1 space for every 2 employees on the maximum shift
	Hotel/Motel	1 space per room plus 1 space for every 2 employees on the maximum shift
Parking, Commercial		1 space per employee on the maximum shift
Restaurants	Drive-In Restaurant	1 space per 100 square feet of gross floor area, plus 1.5 spaces for every 2 employees.
	Drive-Through Restaurant	1 space for each 3 seats, plus reserve lane capacity equal to 5 spaces per drive-up window
	Other	1 space plus 6 spaces per order delivery person on maximum shift
Retail Sales and Service	Bar, Nightclub, Taverns	1 space per 100 square feet of gross floor area
	Convenience Store	1 space per 200 square feet of gross floor area
	Fuel Sales	1 space per 200 square feet of gross floor area of building devoted primarily to gas sales operation, plus sufficient parking area to accommodate 2 vehicles per pump without interfering with other parking spaces
	Open Air Market	1 space per 300 square feet of sales area
	Veterinarian/Kennel, Indoor	1 space per 200 square feet of gross floor area
	Veterinarian/Kennel, Outdoor	1 space per 200 square feet of gross floor area
	Other	1 space per 200 square feet of gross floor area
Self-Service Storage		1 per 5,000 square feet of area devoted to storage

TABLE OF PARKING REQUIREMENTS		
Use Category	**Specific Use**	**Requirement**
Vehicle Sales and Service	Car Wash	1 space for every 3 employees on the maximum shift plus 3 spaces per stall
	Vehicle Repair	5 spaces per service bay plus 1 space for each employee
	Vehicle Sales, Rental	2 spaces per 300 square feet of gross floor area plus one space for every 2 employees on the maximum shift
	Vehicle Service, Limited	5 spaces per service bay plus 1 space for each employee
	Other	1 space per employee, plus one visitor space per 200 square feet of office
Aviation Service		1 space per employee, plus one visitor space per 200 square feet of office
Light Industrial Service	Flex Space	1 per 500 square feet of gross floor area
	Other	1 per 500 square feet of gross floor area, plus 1 additional per 1,000 square feet of gross floor area outdoor facility and 1 per 2,500 square feet of indoor storage area
Manufacturing and Production		1 space for every 2 employees on the maximum shift or 1 space per 200 square feet of gross floor area, as most appropriate
Resource Extraction		1 space for every 2 employees on the maximum shift, plus 1 per 200 square feet of gross floor area indoor facilities
Warehouse and Freight Movement	Storage	1 space for every 2 employees on the maximum shift but not less than 1 per 5,000 square feet of area devoted to use (whether inside or outside)
	Truck Terminal	1 space per 2 employees on maximum shift
Waste Related Service	Reclamation Landfill	1 space per 2 employees on maximum shift plus 1 space per vehicle used in operation
	Recyclable Materials Collection	1 space per 2 employees on maximum shift plus 1 space per vehicle used in operation
	Salvage Yard	1 space per 2 employees on the maximum shift but not less than 1 per 5,000 square feet of area devoted to use, plus 1 space per vehicle use in operation
	Sanitary Landfill	1 space per 2 employees on maximum shift plus 1 space per vehicle used in operation
	Other	1 space per 2 employees on maximum shift plus 1 space per vehicle used in operation
Wholesale Sales		1 space for every 2 employees on maximum shift
Agriculture		1 space per 2 employees on maximum shift

C. **Flexibility in administration authorized.**

1. In recognition that inflexible application of the parking standards in paragraph B., above, may result inadequate or excessive parking requirements, the permit-issuing authority may permit deviations from the presumptive requirements of paragraph B., and may require more parking or allow less parking whenever it finds that such deviations are more likely to satisfy the standard set forth in paragraph A.1., above.
2. Any allowed or required deviation from the presumptive parking requirements set forth in paragraph B. above shall be entered on the permit along with the reasons for allowing or requiring the deviation.
3. If the permit-issuing authority is the Planning Director, and the applicant does not wish to accept the Planning Director's decision and requirements, the applicant can request that the application be handled as a special use permit.

D. **Parking space dimensions.** Each parking space shall contain a rectangular area at least 18 feet long and nine feet wide, except as follows:

1. Handicapped spaces shall be consistent with the requirements of Chapter 4 of the North Carolina Accessibility Code, as amended and shall be located as closely and conveniently as practical to building entrances (see Appendix F).
2. Parallel parking spaces shall have a rectangular area of not less than 24 feet in length and nine feet in width.

3. Angled parking spaces shall conform with the dimensions illustrated below. Alternative designs may be allowed by the Planning Director provided it is consistent with the recommended dimensions contained in the latest edition of the Traffic Engineering Handbook published by the Institute of Traffic Engineers.

E. **Required widths of parking area aisles and driveways.**

1. Parking area aisle widths shall conform to the following table, which relates aisle widths to parking angles.

Parking Angle	Width: One Row Sharing Aisle	Width: Two Rows Sharing Aisle
90 degrees	42 feet	60 feet
60 degrees	40 feet	62 feet
45 degrees	35 feet	56 feet

2. Driveways shall be not less than ten feet in width for one-way traffic and 18 feet in width for two-way traffic, except that ten feet wide driveways are permissible for two-way traffic when:

   a. The driveway is not longer than 50 feet;

   b. It provides access to not more than six spaces;

   c. Sufficient turning space is provided so that vehicles need not back into a public street;

   d. The use is a low traffic volume use and the public right-of-way has a low traffic volume.

The permit-issuing authority can deviate from this requirement. Any deviations and the reason(s) for such deviations shall be entered on the permit.

3. For uses proposed adjacent to U.S. 70, 401 or N.C. 50, see Sections 8.2.C and 8.2.D.

F. **General design requirements.** Vehicle accommodation areas shall be designed so that:

1. Vehicles may exit such area without backing onto a public street. This requirement does not apply to driveways serving one or two dwelling units.

2. Vehicles cannot overhang property lines, public rights-of-way, or public sidewalks, or tend to bump against or damage any wall, vegetation or other obstruction.

3. Vehicles can move without posing a danger to pedestrians or other vehicles and without interfering with parking areas.

G. **Vehicle accommodation area surfaces and standards.**

1. It is strongly recommended that vehicle accommodation areas with lanes for drive-in windows or ten or more parking spaces, and that are used at least five days per week, be graded and surfaced with asphalt, concrete or other material that will provide equivalent protection against potholes, erosion, and dust. Appendix C contains specifications for surfaces meeting this standard.

2. Vehicle accommodation areas not permanently surfaced shall be graded and surfaced with crushed stone, gravel or other suitable material (as provided in the specifications set forth in the Town of Garner Standard

Construction Details in Appendix B) to stabilize the area and reduce dust and erosion. The perimeter of such parking areas shall be defined by bricks, stones, railroad ties, or similar devices. This section shall not apply to uses required to have only one or two parking spaces.

3. Vehicle accommodation areas shall provide a minimum five feet or perimeter space between the right-of-way line or property line and the edge of the vehicle accommodation area, and shall be landscaped in plantings or other appropriate manner. When adjacent to residential uses and/or districts, plantings, hedge or a solid fence to a height of at least four feet shall provide a screen.
4. Parking spaces shall be demarcated in a practical and appropriate manner.
5. Vehicle accommodation areas shall be properly maintained. In particular, vehicle accommodation area surfaces shall be kept in good condition and parking space demarcations shall be kept clearly visible and distinct.
6. Parking spaces shall be separated from walkways so that at least a 4-foot walkway width is unobstructed.

H. **Joint use of required parking space.**

1. One parking area may contain required spaces for several uses, but, except as provided in paragraph 2. below, the required space assigned to one use may not be credited to any other use.
2. To the extent that developments that wish to make joint use of the same parking spaces operate at different times, the same spaces may be credited to both uses. For example, if a parking lot is used in connection with an office building on Monday through Friday but is generally 90 percent vacant on weekends, another development that operates only on weekends could be credited with 90 percent of the spaces on that lot. Or, if a church parking lot is generally occupied only to 50 percent of capacity on days other than Sunday, another development could make use of 50 percent of the church lot's spaces on those other days.
3. If the joint use of the same parking spaces by two or more principal uses involves satellite parking spaces, then the provisions of paragraph I. below are also applicable.

I. **Satellite parking.**

1. If the required number of off-street parking spaces cannot reasonably be provided on the same lot as the use they are serving then spaces may be provided on nearby lots in accordance with the provisions of this section. These off-site spaces are referred to as satellite parking spaces.
2. Satellite parking spaces (except spaces intended for employee use) must be located within 400 feet of the use associated with such parking.
3. Satisfactory written evidence of permission by the owner(s) of the area to be used for satellite parking spaces must be provided by the developer.

The developer must also sign an acknowledgment that the continuing validity of his permit depends upon his continuing ability to provide the requisite number of parking spaces.

4. For developments where:

   a. The building(s) pre-existed this UDO;

   b. A change in use that does not involve any structural enlargement is proposed; and

   c. The parking requirements cannot be satisfied on such lot, then the developer need only comply with the requirements of paragraph A. of this section to the extent that parking space is available on the lot where the development is located, and satellite parking space is reasonably available as provided in paragraph F of this section. It shall be a continuing condition of the permit authorizing development on such lot that the developer obtain satellite parking when it does become reasonably available.

5. Satellite parking areas are required to satisfy the general design requirements of paragraphs F. and G. of this section.

J. **Loading and unloading areas.**

1. Whenever normal business operations require routine deliveries to or shipments from a development, sufficient off-street loading and unloading area must be provided in accordance with this section to accommodate the delivery or shipment operations in a safe and convenient manner.

2. The loading and unloading area must be of sufficient size to accommodate the numbers and types of vehicles that are likely to use this area. The following table indicates the number and size of spaces that, presumptively, satisfy the standard set forth in this subsection. However, the permit-issuing authority may require more or less loading and unloading area if reasonably necessary to satisfy the foregoing standard.

Gross Floor Area of Building	Number of Spaces with Maximum Dimensions of 12′ × 25′ and Overhead Clearance of 14′ From Street Grade
0—39,999	1
40,000—99,999	2
100,000—159,999	3
160,000—239,999	4
240,000—319,999	5
320,000—399,000	6
400,000 and over	6 spaces plus one space for each additional 90,000 square feet over 400,000 square feet or fraction thereof

3. Loading and unloading areas shall be so located and designed that the vehicles intended to use them:
   a. Can maneuver safely and conveniently to and from a public right-of-way; and
   b. Complete the loading and unloading operations without obstructing or interfering with any public right-of-way or any parking space or parking lot aisle.
4. No area allocated to loading and unloading facilities may be used to satisfy requirements for off-street parking and Vice-versa.
5. Loading areas within the lots of industrial subdivisions shall be self contained and capable of handling its own truck maneuvering and docking requirements. The maneuvering, staging and docking areas shall not be in conflict with the required parking spaces, lots and their isle/maneuvering areas. The use of public streets for commercial vehicle staging and/or maneuvering is prohibited. Loading areas shall be located either to the rear or the side of the industrial structures(s) to alleviate unsightly appearances often created by loading facilities. Where such locations are not feasible, loading docks and doors shall be screened as detailed in Section 7.1.M.2.

(Ord. No. 3396, § 13, 4-3-06)

7.5. Sign regulations.

Commentary: Signs are permitted throughout the Town according to these sign regulations. Different areas of the community are subject to different sign regulations. In particular, the I-40, Timber Drive and U.S. 70/401 corridors have separate regulations in the following material.

Some signs are allowed without a permit (see D. below).

General sign requirements are set forth in G. below. Details about construction and location of specific types of signs are set forth in H. below.

Timber Drive regulations are set forth in J. below, and U.S. 70/401 regulations are set forth in K. below.

A master sign plan is required for any multi-tenant site (shopping center, office, etc.) or nonresidential subdivision (see N. below).

A. **Purpose and intent.** These sign regulations are intended to:
   1. Encourage the effective use of signs as a means of communication for businesses, organizations and individuals in the Town of Garner;
   2. Encourage the effective use of signs as a means to improve pedestrian and traffic safety and to promote safe way-finding in Garner by establishing minimum standards for visibility and legibility of signs;
   3. Require that all signs that, because of their location, are within the view of drivers in active traffic, meet minimum standards of visibility, legibility and conspicuity standards, and to differentiate these signs from those

signs that are not within the view of drivers in active traffic but that may provide information to them while they remain in their cars but out of active traffic;

4. Maintain and enhance the pleasing look of Garner and preserve Garner as a community that is attractive to business;

5. Minimize the possible adverse effects of signs on nearby public and private property;

6. Implement the provisions of the Long Range Plan, as updated from time to time;

7. Create cohesive sign regulations that create a recognizable context in Garner; and

8. Prohibit all signs on private property not expressly permitted under this section.

B. **Sign regulations: Height, number and size of signs.** Unless otherwise provided, the total surface area of all signs on any lot shall not exceed the limitations set forth in this section, and all signs, except temporary signs and those excluded from regulation under this section shall be included in this calculation.

C. **Prohibited signs.** The following signs are prohibited in all districts.

1. Any non-government sign which by its location, shape, size, message, color or operation would tend to obstruct the view of or be confused with official traffic or railroad signs, signals or devices or other signs erected by governmental agencies;

2. Any sign which, at its proposed location, would interfere with the view necessary for motorists, bicyclists or pedestrians to proceed safely through intersections or to enter onto or exit from public streets or private roads or driveways;

3. Any sign, subject to paragraph D.1. below, placed or shaped so as to interfere with or obstruct any window, door, fire escape, stairway, walkway, opening intended to provide light, air, ingress or egress for any building or with vehicular movement on public streets or drives;

4. Any sign, or portion thereof, which, to attract attention, moves, rotates, flutters or appears to move in any way, whether by natural, electrical or mechanical means, including banners, flags, propellers and similar devices except where noted in paragraph I. of this section;

5. Any sign which contains or is illuminated by flashing or intermittent lights, lights of changing degrees of intensity, or rotating lights, except signs indicating time and/or temperature;

6. Balloons, blimps or similar types of lighter-than-air objects, except those which are subject to Federal Aviation Administration regulations;

7. Portable signs, including any sign displayed on or painted on vehicles or trailers used primarily for the purpose of attracting attention, except signs painted or permanently attached to a commercial vehicle shall be allowed provided:

   a. The vehicle is road worthy and is regularly used as part the of business operation;

   b. The vehicle displays a current license that is registered to said vehicle and;

   c. The vehicle displays any required North Carolina inspection decal;

   Commentary: The intent subsection 7 above is to prohibit the use of commercial vehicles that are used strictly for signage purposes in cases where there is no regular use of the vehicle in the business operation (i.e. the vehicle is not operable and is parked in one location and is not moved on any regular basis). Commercial vehicles that are regularly used as part of business are not restricted under this section.

8. Any commercial sign not located on the premises for which it advertises, except as specifically permitted;

9. Any temporary sign or banner, except as specifically permitted;

10. Any sign or portion thereof placed into or overhanging any right-of-way, except as specifically permitted; and

11. Any sign extending above or placed upon any roof surface except as provided in paragraph H.1. of this section.

D. **Signs allowed without a permit.** The following signs may be erected and maintained in all districts without a permit.

1. Directional real estate signs no more than four square feet in size and posted only from Friday at 6:00 p.m. until Sunday at 8:00 p.m. Such signs shall be located no less than four feet from the back of curb, and shall not interfere with clear sight triangles at driveways or intersections.

2. Signs on interior window glass, regardless of number, size or coverage. Signs on glass doors are limited to 30 percent coverage of the glass area and enough clear area shall be maintained to allow adequate vision to ensure safe use of the doors by people of all sizes;

3. Un-illuminated temporary signs which advertise the sale, rental or lease of the premises upon which the sign is located, limited to five square feet in total area for residential uses, and 32 square feet in total area for commercial or industrial properties. Any such sign shall not be placed within any right-of-way or situated so as to interfere with sight distance, shall be limited to one sign per street frontage and six feet in height and shall be removed within ten days of the sale, lease or rental of the property advertised or within five days of the date the sold sign is added or affixed;

4. Signs directing and guiding traffic on private property that do not exceed two square feet in surface area or two feet in height and that bear no advertising matter;
5. Signs and displays, including lighting erected in connection with the observance of holidays. Such signs shall be removed within ten days following the holiday;
6. Changes in the moveable lettering of any permitted signs;
7. Signs advertising a special event such as a fair, carnival, circus, fish fry, garage sale or other similar happening provided the following conditions are met:
   a. Signs are not erected more than two weeks before the event, and shall be removed not later than three days after the event.
   b. Signs shall be placed no closer than ten feet back from the curb line or edge of pavement.
   c. Signs shall not be placed on any existing official governmental signs, including legal notices, identification and informational signs and traffic, directional or regulatory signs.
   d. Signs shall not be placed on any utility poles, trees on public right-of-way, or street medians.
   e. Signs shall not exceed three feet in height and nine square feet in total area.
8. Political signs erected in connection with elections or political campaigns are permitted under the following conditions:
   a. Political signs in the vicinity of a polling place for a period not exceeding 24 hours preceding the opening of the local polls; such signs shall be removed within 24 hours following the closing of local polls.
   b. All political signs shall be removed from the public street right-of-way within seven days after the election day. A political sign shall not be permitted in a sight distance triangle as specified in Article 11.2.
   c. Except as noted in a. above, political signs shall not be erected or posted until the candidate filing deadline date for the applicable national, state, or local office, including primary elections. Prior to the erection of any political sign, the candidate, or authorized representative shall post a bond or cash deposit in the amount of $200.00 with the Planning Department to guarantee the private removal of political signs. The bond or cash deposit may be returned only upon satisfactory removal of such signs according to the time requirements as specified herein. All political signs shall be removed from the public street right-of-way within seven days after the election day.
   d. Signs shall be placed no closer than ten feet off the curb or ditch.

e. Signs shall not be placed on any utility poles, tree on public property, or in any street median.

f. No sign shall exceed 32 square feet in total area or more than eight feet in height.

g. Such signs on private property shall conform to this section.

9. Uses selling gasoline are allowed the following signs:

a. Price, self-service and/or credit card signs located at and secured to each pump island and not exceeding nine square feet in aggregate per pump island or one square foot per side per pump.

b. Brand name, grade of gasoline and informational signage directly related to the gasoline being dispensed (i.e. pump usage directions, etc.) not exceeding nine square feet in aggregate per pump island or one square foot per side per pump.

10. One North Carolina automobile inspections sign located on the building or on a permitted freestanding sign, and not exceeding ten square feet; and

11. Signs sponsored by government, school, recreational or civic clubs providing rules for the use of developments and sites, such as a pool, or schedules, are permitted on the same site as the organization or use, limited to 16 square feet per side, 32 square feet in aggregate area.

12. Signs on residential structures, premises or mailboxes giving the names and/or address of the occupants and signs posted on property relating to private parking or warning the public against trespassing or danger from animals, provided any such sign shall not exceed two square feet in area; there shall be not more than two such signs per lot.

13. Signs erected by, on behalf of, or pursuant to the authorization of a governmental body, including legal notices, identification and informational signs, and traffic, directional, and regulatory signs.

14. Official signs of a noncommercial nature erected by public utilities, such as signs denoting the location of underground utilities.

15. Flags, pennants or insignia of any governmental, civic or non-profit organization when not displayed in connection with a commercial venture or an advertising device and when located on the same site as the organization provided the maximum height for such does not exceed 30 feet or the height of the tallest principle building on the site whichever is greater; and the maximum size does not exceed 32 square feet.

16. Signs proclaiming religious, political, or other noncommercial messages (other than those regulated by Section 280) that do not exceed one per abutting street and 16 square feet in area and that are not internally illuminated.

E. **Computation.**

1. **Sign area.**

a. **Area to be included.** The area of a sign shall include all lettering, wording, designs and symbols, together with the background, whether open or enclosed, on which they are displayed. The supporting

structure or bracing of a sign shall be omitted in measuring the area of the sign unless such structure or bracing is made part of the message or face of the sign.

b. **Signs attached to walls.** Where a sign consists of individual letters, words or symbols attached to a surface, building, canopy, awning, wall or window, the sign area shall be the area of the smallest rectangle which completely encompasses all such letters, words or symbols and any accompanying background of a color different than the natural color of the wall.

c. **Gas sales or convenience store with gas sales.** The registered trademark of the brand of gas sold shall not be considered in the number of wall signs allowed, but the area of such trademarks shall be included in the maximum sign area permitted by lot.

2. **Computation of height.** The height of a sign shall be computed as the distance from the base of the sign at a computed grade to the top of the highest attached component of the sign. The computed grade shall be the elevation of the nearest point of the crown of a public street or the grade of the land at the principal entrance to the principal structure on the lot, whichever is lower.

F. **Schedule of general sign requirements.**

Zoning District	Sign Type	Maximum Sign Area Per Lot	Maximum Signs	Maximum Height
Residential Zones: All Residential Districts (R-40, R-20, R-15, R-12, R-9, RMH, MF-1, MF-2 and Planned Development Residential Uses)	Freestanding: Residential Use Other Permissible Use	4 square feet 32 square feet	1	4 feet
	Wall: Churches, schools, or other residential uses permitted in all residential zones	24 square feet	1	5 feet
	Residential Entrance Signs	See Section 7.5 (I)(2)(a)	1	None
I-40: All Business or Industrial Districts (NO, OI, NC, CR, SB, I-1, I-2)	Freestanding:	100 square feet	1 per street frontage, 2 maximum	12 feet
	Wall: Building up to 100,000 square feet floor area	Greater of 60 square feet or 7% of wall frontage	3 wall	None
	Wall: Building over 100,000 square feet	Lesser of 100 square feet or 10% of wall frontage	3 wall	None
U.S. 70 & U.S. 401: All Business or Industrial Districts (NO, OI, NC, CR, SB, I-1, I-2)	Freestanding:	100 square feet	1 per street frontage, 2 maximum	12 feet
	Wall: Building up to 100,000 square feet floor area	Greater of 60 square feet or 7% of business wall frontage	3 wall	
	Wall: Building over 100,000 square feet floor area	Lesser of 100 square feet or 10% of wall frontage	4 wall	

Note: Table continued on next page

Zoning District	Sign Type	Maximum Sign Area Per Lot	Maximum Signs	Maximum Height
OI Districts: All NO and OI Districts not on Timber Dr., U.S. 70, U.S. 401 or I-40	Freestanding (monument only): 100 square feet maximum total all freestanding and wall signs	48 square feet	1 per street frontage, 2 maximum	6 feet
	Wall: Building up to 100,000 square feet floor area	Greater of 60 square feet or 7% of wall frontage	3	N/A
	Wall: Building over 100,000 square feet	Lesser of 100 square feet or 10% of wall frontage	4	N/A
Business Districts: All Business Districts (NC, CR, SB, I-1, I-2) not on Timber Dr., U.S. 70, U.S. 401 or I-40	Freestanding: 100 square feet maximum total all freestanding and wall signs	60 square feet	1 per street frontage, 2 maximum	12 feet
	Wall: Building up to 100,000 square feet floor area	Greater of 60 square feet or 7% of wall frontage	3	None
	Wall: Building over 100,000 square feet	Lesser of 100 square feet or 10% of wall frontage	4	None

G. **General sign location and construction standards.** The following regulations shall apply to signs in all districts.

1. **Not in right-of-way.** No sign or portion thereof may be placed into or overhang any right-of-way.

2. **Sign located substantially below street.** Where a business is located substantially below the elevation of the street (as determined by the Planning Director) such that the allowable maximum sign height creates unreasonable hardship in terms of limited visibility, an exception to the usual maximum height requirements may be granted by the Planning Director through the sign permit process. This exception shall allow only for the minimum height beyond that normally granted necessary to provide reasonable visibility for the sign from the street upon which the business fronts having the highest traffic count. (Unless conflicting with other provisions of this UDO, the sign shall be located at the point on the

site along said frontage at which reasonable visibility from said street is first achieved within the allowable maximum height.) Regardless of location, and in no case after making this exception shall the sign be allowed at a height above said street which exceeds the maximum permitted height in this section.

3. **Sign materials.** All materials used for signs shall be those that, as determined by the Planning Director, maintain their original appearance well over a long period of time. Examples of materials which do not endure include particle board and plywood. Additionally, the external painting of signs using methods that are not durable are not allowed. Enamels must be baked on so as to help retain a new look, and proper sealing from the weather is required. All signs should be fully encased or skirted at a minimum width that is one-half of the width of the sign face so as to present an appearance of pillars or other substantial supports.

4. **Sign lighting.** Illumination of signs is allowed in accordance with the following provisions:

   a. No illuminated sign shall be permitted within 50 feet of any residential district. Church bulletin boards are exempt from this provision.

   b. No sign within 300 feet of a residential zone may be illuminated between the hours of 12:00 midnight and 6:00 a.m., unless the impact of such lighting beyond the boundaries of the lot where the sign is located is entirely inconsequential.

   c. Lighting directed toward a sign shall be shielded so that it illuminates only the face of the sign and does not shine directly into a public right-of-way or residential premises.

   d. All lighted signs shall comply with state and local building and electrical codes, and shall bear the label of Underwriters Laboratories, Inc. All wiring to freestanding signs or to associated lighting equipment shall be underground, unless it is impracticable to do so.

   e. Poles and other supporting structures shall not be internally illuminated.

5. **Changeable copy.** A changeable copy or marquee sign shall be erected only in combination with an identification sign and shall be included in the computation of sign area.

H. **Sign standards by sign type.**

1. **Wall signs.**

a. No sign may project more than 18 inches from the building wall.

b. No wall sign shall project above the roofline.

c. A sign may extend down from a roof or porch or walkway overhang not more than 18 inches (to the bottom of the sign), provided however that a minimum clearance of seven feet between the bottom of the sign and the walking surface shall be maintained.

d. Displays on roofs of residential structures erected in connection with holiday observance are not included in this prohibition.

e. Roof surfaces constructed at an angle of 75 degrees or more from horizontal shall be regarded as wall space for the purposes of this section.

2. **Freestanding signs.**

a. Freestanding signs shall be securely fastened to the ground so that there is virtually no danger that the sign may be moved by wind or other forces of nature and cause injury to persons or property. All applications for a freestanding sign permit shall be accompanied by an engineer's sealed footing drawing and calculations testifying to the ability of the sign to withstand 100 mile-per-hour winds.

b. No freestanding sign shall encroach into any right-of-way.

c. The Town encourages the use of the specific information signing program (LOGO Program) along I-40.

d. All freestanding signs (including multi-tenant signs) shall be located so as to produce an aesthetically pleasing separation (as determined by the Planning Director) between such signs along road frontages. Where possible, the distance should be at least 150 feet.

e. All freestanding outparcel signs shall be located on-site only, and shall be separated by a minimum distance of 100 feet.

f. The base of every permanent freestanding sign that requires a sign permit shall be landscaped. The size of the planted landscape area shall be determined by multiplying the height of the sign (measured from the ground to the upper most part of the sign) by the width of the sign (widest dimension), divided by two, but in no case shall the planted area be less than 50 square feet, unless restricted by the amount or size of land upon which the sign is situated that is owned or controlled by the applicant. The planted landscape area shall contain materials such as, but not limited to: vegetative ground covers, perennials, shrubs, ornamental trees and mulch, but excluding paving and artificial plant materials. A sketch plan of the landscaped area with the name, quantity and spacing of plants shall be presented to the Planning Director as part of applying for sign permit.

g. Poles and other supporting structures shall not be internally illuminated.

3. **Off-premises advertising signs.**

a. Off-premises advertising signs are permitted only in I-1 or I-2 zones; no off-premises advertising signs are permitted except along and facing U.S. 70 or U.S. 401, as set forth in paragraph of this section. No off-premises advertising signs shall be permitted along and facing the 1-40 corridor.

b. Off-premises advertising signs shall be spaced a minimum of 2,500 feet apart, measured between signs facing the same street.

c. Where the structural support is visible from any street, the display shall be constructed on a steel single pole.

d. The immediate premises shall be kept free from debris or undergrowth. Appropriate landscaping shall be placed and maintained at the base of the structural support of every off-premise advertising sign erected.

e. All displays shall be maintained in a state of good repair. The backs and supporting structures of all off-premise advertising signs shall be kept painted in a neutral color to blend with the natural environment.

f. While minor repairs, maintenance and the posting of new messages on off-premise advertising signs made nonconforming by this UDO are permitted, no changes in the size of construction of the sign shall be permitted except to make the sign comply with the requirements.

g. Off premises advertising signs may be placed back-to-back or in a v-type construction. Not more than one face is allowed on each side of the display.

h. Size, height and setback requirements are as follows:

Standard	
Maximum Surface Area	150 square feet
Minimum Setback	50 feet
Maximum Height	25 feet

4. **Multi-tenant signs.**

a. All multi-tenant signs, including but not limited to shopping center identification signs, multiple business signs, directory signs and all wall signs, shall meet the standards in the following table. For locations within the Timber Drive Overlay District, see paragraphs J., below.

Multi-Tenant Sign Type	**Maximum Sign Area**	**Maximum Number**	**Maximum Height**
Freestanding Project Signs: Development up to 300,000 square feet	100 square feet	1 per street frontage, 2 maximum	10 feet
Development over 300,000 square feet and up to 500,000 square feet	120 square feet	2 per street frontage, 3 maximum	15 feet
Development over 500,000 square feet	When project qualifies for 4 freestanding signs: 1 @ 180 square feet; 3 @ 120 square feet	Maximum of 4 when project has frontage on 3 or more public streets, no more than 2 per public street frontage*	When project qualifies for 4 freestanding signs: 1 @ 15 feet* 3 @ 12 feet*
	For projects that do not qualify for 4 freestanding signs the maximum area per sign is 120 square feet	For projects that do not qualify for 4 signs, a maximum of 3 allowed with no more than 2 per public street frontage	For projects that do not qualify for 4 signs, sign height may be up to 15 feet*
Freestanding community identification or directional sign (Applies only to Development over 500,000 square feet)	20 square feet	Maximum of 4 signs regardless of sign type, no more than 2 at any one location	4 feet
Note: Table continued on next page			

Multi-Tenant Sign Type	Maximum Sign Area	Maximum Number	Maximum Height
On-Premise Directional sign: Development up to 300,000 square feet	20 square feet	1 per entrance or internal intersection, 2 maximum	5 feet monument only
Development over 300,000 and up to 500,000 square feet	20 square feet	1 per entrance or internal intersection, 3 maximum	5 feet, monument only
Development over 500,000 square feet	20 square feet	1 per entrance, or other internal location (maximum of 4) approved as part of master sign plan	5 feet monument only
Outparcel: Freestanding monument sign (development up to 300,000 square feet)	32 square feet	1 per outparcel	4 feet
Freestanding monument sign (development over 300,000 and up to 500,000 square feet)	32 square feet	1 per outparcel	4 feet
Freestanding monument (Development over 500,000 square feet)	32 square feet	1 per outparcel	4 feet
Wall: (including canopy face) Development up to 100,000 square feet	Greater of 60 square feet or 10% of frontage wall area	1 per business frontage & 1 per public street, max. of 3	None
Note: Table continued on next page			

Multi-Tenant Sign Type	Maximum Sign Area	Maximum Number	Maximum Height
Development over 100,000 square feet and up to 500,000 square feet	Greater of 60 square feet or 7% of frontage wall area	1 per business frontage & 1 per public street, max. of 3	None
Development over 500,000 square feet	Greater of 60 square feet or 7% of business frontage wall area	1 per business frontage & 1 per public street, max. of 3	No signs above roofline
For 100,000 square foot major individual tenant in a shopping center	Greater of 60 square feet or 7% of business frontage wall	1 per business frontage & 1 per public street, max. of 4	No signs above roofline
Canopy Underhang: Projects of any size	4 square feet	1 per business	Bottom of sign maximum 18 inches below bottom of canopy face

Note: All freestanding signs in multi-tenant developments shall be located so as to produce an aesthetically pleasing separation as determined by the Planning Director between such signs along road frontages. Where possible the separation should be 300 feet between freestanding project signs and 100 feet between outparcel freestanding signs.

b. Multi-tenant sign standards. All multi-tenant signs, including but not limited to shopping center identification signs, multiple business signs, directory signs and all wall signs, shall conform to the following criteria and standards. (Wall signs and freestanding signs on existing outparcels, regardless of the number of businesses on those parcels, are not required to meet the following criteria and standards, but are encouraged to do so to better achieve the purpose stated above.)

Criteria and Standards for Multi-Tenant Signs		
Criteria	**Wall Signs**	**Freestanding Signs**
Locations	Uniform vertical and horizontal positions on storefront	N/A
Type Style	Similar style encouraged; logos allowed; maximum of 2 lines per sign	N/A
Note: Table continued on next page		

Criteria and Standards for Multi-Tenant Signs		
Criteria	**Wall Signs**	**Freestanding Signs**
Materials	Uniform; compliment building facade materials	
Colors	Same 3 matching colors (maximum) on each sign encouraged; pattern or scheme required. Garish schemes not allowed.	
Logos	Maximum 20 percent of approved sign area.	
Illumination	Signs may be illuminated or not, but all illumination must be the same type and intensity of light	
Poles	N/A	One pole preferred for signs other than multi-business signs. Minimum skirt width of 4 feet for single pole. Maximum of 2 poles per sign. Poles may not be illuminated.

5. **Nonresidential subdivision signs.**

   a. Nonresidential subdivision signs shall meet the standards in the following table:

Sign Type	Maximum Sign Area	Maximum Signs	Maximum Height
Freestanding: Subdivision identification or a freestanding multi-tenant sign (monument sign preferred)	72 square feet	1 per exterior road frontage, 2 maximum	12 feet for pole sign with minimum 7-foot wide base, 8 feet for monument
Monument Signs for individual parcels and lease lots	60 square feet	1 per parcel or lease lot	6 feet
Wall: Including canopy face	Lesser of 72 square feet or 15% of business frontage wall area	1 per business frontage and one per public street, 3 maximum	None
Canopy Sign:	4 square feet	1 per business	Bottom of sign maximum 18 inches below bottom of canopy face

6. **Nonresidential subdivision sign standards.** All commercial subdivision identification signs, multiple business signs, freestanding signs for individual businesses, and all wall signs shall conform to the following criteria and standards and the standards of paragraph N.

Criteria and Standards for Nonresidential Subdivision Signs		
Criteria	**Wall Signs**	**Freestanding Signs**
Locations	Uniform vertical positions; all centered on storefront or to one side of storefront	N/A
Type Style	Similar style encouraged; logos allowed	
Materials	Similar style; compliment building facade materials	
Colors	Same 3 matching colors (maximum) on each sign encouraged; pattern or scheme required. Garish schemes not allowed.	
Logos	Maximum 20 percent of sign area.	
Illumination	Signs may be illuminated or not, but all illumination must be the same type and intensity of light	
Poles	N/A	One pole preferred for signs other than multi-business signs. Maximum of 2 poles per sign. Poles may not be illuminated.

I. **Miscellaneous temporary and permanent signs.** The following temporary and permanent signs are permitted in addition to any allowed in above, and all require a sign permit.

1. **Temporary signs.**

a. Construction site identification signs, naming the project, developer, contractors and others connected with the construction, sale or lease of structures, and related information, are permitted. Not more than one such sign may be erected per site, and it may not exceed 32 square feet in area or six feet in height. Permits for such signs shall be limited to one-year, with a renewable option, provided such signs are not erected prior to site, Special Use approval of the project identified. Any such sign shall be removed within ten days alter the issuance of the final occupancy permit.

b. Signs or banners advertising special events must be on private property and shall not be permitted within public rights-of-way. Permits for such banners or signs shall be limited to 30 days and no more than three times each year. Any such banner or sign shall be removed within ten days after the event was advertised.

c. Signs or banners advertising the initial opening of a business establishment may be permitted on private property. Not more than one such sign or banner per site is permitted at any one time; such

sign or banner shall not exceed 32 square feet in area and shall meet all other requirements. Permits shall be limited to 30 days from the date of issue.

d. Signs on private property directing the public to a subdivision or multi-family development are permitted, provided that the property owner's written permission for such use of his land accompanies the permit request, that the sign does not exceed 32 square feet in surface area, and that the sign bears only the name of and direction to the development. Permits for such signs are limited to one year.

e. Signs providing direction to a U-pick farm operation or agricultural market are permitted. Any such sign shall not exceed 32 square feet in area. Permits shall be limited to a maximum of 60 days from the date of issue and require the written permission of the property owner or his agent for such use of his land.

2. **Permanent signs.**

a. **Residential subdivision signs.**

(1) Each individual residential subdivision or multifamily development is permitted the option of having one freestanding monument sign to be located at the major entrance to the development with a single side of the sign not to exceed 32 square feet in area or five feet in height, or two freestanding monument signs with single faces not to exceed 16 square feet and five feet in height. The permit issuing authority may allow deviations from the dimensional requirements of this section if it finds that such deviation will maintain an appropriate appearance and will not impact public safety. The maximum deviation permissible under this section is 30 percent.

(2) All other entrances for each distinct phases of a residential subdivision or multifamily development are permitted one freestanding monument sign having a maximum single side surface area of 16 square feet and four feet in height. A single sign may be located within a median of a public right-of-way, at the major entrance to the development if such entrance is divided by a median with dimensions of minimum length of 50 feet and minimum width of ten feet. A sign located in the median of a public right-of-way shall be located a minimum of ten feet from the end of the median radius and shall not exceed 3.5 feet. The permit issuing authority may allow deviations from the dimensional requirements of this section if it finds that such deviation will maintain an appropriate appearance and will not impact public safety. The maximum deviation permissible under section is 30 percent.

(3) For all entrance signs, the height limitation shall apply to the sign as well as any support devices such as but not limited to a wall, monument, fence, etc., or similar architectural features.

b. **Promotional signs.** Promotional signs advertising commercial business or goods are allowed on the interior surface of fences of private, public or semi-public ballfields.

c. **Schedule and sponsor sign.**

(1) A schedule and sponsor sign may be erected on school property at a school ballfield provided no adverse impact on traffic safety or neighborhood character, as determined by the permit-issuing authority, will result. The sign may be erected according to the following:

(a) Zero—50 feet from road right-of-way, unlighted, maximum 50 square feet of face area;

(b) Fifty-one—150 feet from road right-of-way, unlighted, maximum of 150 square feet of face area; or

(c) Greater than 150 feet from right-of-way, 300 square feet maximum face area.

(2) The sign may list a schedule of dates and locations of play, and may list sponsors, by name only. Advertisements beyond the name of the sponsor(s) is not permitted. No part of this sign shall be higher than 25 feet above grade.

d. **Bulletin boards.** Bulletin boards not over 12 square feet in area for public, charitable or religious institutions and located on the same premises as the institution being served is permitted.

e. **Time and/or temperature signs in OI, CR, SB districts.** One freestanding or wall time and/or temperature sign not exceeding 18 square feet in aggregate surface area is permitted on any lot in an OI, CR or SB district. Such sign may be illuminated and animated to the extent necessary to display time or temperature or both, but shall not otherwise flash, blink or rotate.

f. **Farm product signs.** Signs advertising the sale of farm products on-site, limited to a maximum of 24 square feet per face, are permitted. Not more than one such sign may be erected per site.

g. **Community service signs.** A welcome sign, or a sign incorporating the insignias of more than one civic, governmental and/or non-profit organizations may be permitted. Any such sign shall not exceed 100 square feet, nor exceed 12 feet in height. Location within a right-of-way may be permitted with state and Town approval, as applicable. Such signs may be either on-premise or off-premise.

J. **Timber Drive Overlay District sign regulations.**

1. **Signage for individual building.** Signs on an individual building shall meet the standards in the following table.

Sign Type	Maximum Sign Area Per Lot	Maximum Number	Maximum Height (Freestanding)
Freestanding: (monument only)	48 square feet	1 per street frontage, 2 maximum	5 feet, monument sign only
Wall:	Lesser of 60 square feet or 10% of business frontage wall area	1 per business frontage and 1 per street frontage, 3 maximum	No sign above roofline
Combined:	125 square feet		

Note: Freestanding signage for all buildings with build-to option shall be limited to 36 square feet in sign area, one freestanding sign per lot not to exceed a height of four feet measured at grade.

2. **Multi-tenant signs.** All multi-tenant signs, including but not limited to shopping center identification signs, multiple business signs, directory signs and all wall signs, shall meet the standards in the following table.

Sign Type	Maximum Sign Area	Maximum Number	Maximum Height
Freestanding shopping center sign or freestanding multi-business sign	48 square feet	1 per street frontage, 2 maximum	5 feet, monument sign only
On-premise freestanding directory sign	20 square feet	internal location only, 2 maximum	5 feet, monument sign only
Freestanding outparcel sign	40 square feet	1 per outparcel	5 feet, monument sign only
Wall (includes canopy face)	Lesser of 72 square feet or 10% of business frontage wall area	1 per business frontage and 1 per public street, 3 maximum	No sign above roofline
Wall for 100,000 square foot building, business complex or major tenant in a shopping center	Greater of 60 square feet or 7% of business frontage wall	4	No sign above roofline

Sign Type	Maximum Sign Area	Maximum Number	Maximum Height
Canopy Underhang	4 square feet	1 per business	Bottom of sign maximum 18 inches below bottom of canopy face

3. **Nonresidential subdivision signs.** Nonresidential subdivision signs shall meet the standards in the following table:

Sign Type	Maximum Sign Area	Maximum Number	Maximum Height
Directional sign: Development up to 300,000 square feet	20 square feet	1 per entrance or internal intersection, 2 maximum	5 feet
Development over 300,000 square feet	20 square feet	1 per entrance or internal intersection, 4 maximum	5 feet, monument only
Freestanding subdivision identification sign or freestanding multi-business sign (monument signs preferred)	48 square feet	1 per exterior road frontage, 2 maximum	5 feet, monument sign only
Freestanding signs for individual parcels & lease lots	48 square feet	1 per parcel or lease lot	5 feet, monument sign only
Wall (including canopy face)	Lesser of 72 square feet or 15% of business frontage wall area	1 per business frontage and 1 per public street, 3 maximum	No sign above roofline
Canopy Sign	4 square feet	1 per business	Bottom of sign maximum 18 inches below bottom of canopy face

K. **U.S. 70/401 Thoroughfare Overlay District signage requirements.** Shopping centers, business complex signs, and commercial subdivision signs shall meet the requirements in the following table (for shopping center development greater than 300,000 square feet, see paragraph H. of this section).

Sign Type	Maximum Sign Area	Maximum Number	Maximum Height
Directory: Development up to 300,000 square feet	20 square feet	1 per entrance or internal intersection, 2 maximum	5 feet monument only
Freestanding shopping center sign or freestanding multi-business sign	100 square feet	1 per street frontage, 2 maximum	12 feet, monument sign only
On-premise freestanding directory sign	20 square feet	Internal location only, 2 maximum	5 feet, monument sign only
Freestanding outparcel sign	32 square feet	1 per outparcel	4 feet, monument sign only
Wall (includes canopy face)	Lesser of 72 square feet or 10% of business frontage wall area	1 per business frontage and 1 per public street, 3 maximum	
Wall for 100,000 square foot building, business complex or major tenant in a shopping center	Greater of 60 square feet or 7% of business frontage wall	4	
Canopy underhang	4 square feet	1 per business	Bottom of sign maximum 18 inches below bottom of canopy face

L. **Removal or repair of signs.**

1. Whenever use of a building or premises by a specific business or activity is discontinued for that business or activity for a period of 60 days, signs pertaining to that business or activity shall be immediately removed by the owner. Failure to do so shall constitute abandonment of the sign and is sufficient grounds to order the sign's removal.

2. Every sign and sign structure shall be maintained in good condition at all times. The Planning Director shall have the authority to order painting, repair, alteration or removal of any sign or sign structure which consti-

tutes, by reason of inadequate maintenance, dilapidation, obsolescence, or abandonment, a public nuisance or hazard to safety, health, or public welfare. Permits for any such sign may be revoked in accordance with Article 10, Enforcement.

3. Procedures for handling violations are contained in Article 10, Enforcement.

M. **Nonconforming signs.** See Section 9.6, Nonconforming signs.

N. **Master sign plan.** The purpose of this section is to set forth design criteria and standards for signage in particular types of development so as to produce a coordinated and complimentary graphic image that achieves consistency and harmony among signs. Shopping centers, business complexes, commercial subdivisions and mixed use residential subdivisions are required to meet the requirements of this section.

1. **Master sign plan required.**

a. Master sign plans shall be required for the following types of development:

(1) All existing and newly proposed multi-tenant complexes.

(2) All existing and newly proposed commercial subdivisions. Refer to sections H., I. and J. for requirements regarding dimensional and number requirements.

b. The purpose of this plan is to detail the standards for uniformity which the development proposes to live up to, and to state the manner in which the design criteria and standards for uniform signage set forth in this section shall be met.

c. Sign permits for individual businesses within the development (and therefore subject to the master sign plan) shall be approved by the Planning Director, following master sign plan approval.

d. All signs shall conform to the approved master sign plan on file with the Town. It shall be the responsibility of the owner of the development to ascertain that the most updated version is on file for purposes of this UDO.

2. **Review of master sign plans.**

a. All master sign plans shall be complete, as determined by the Planning Department, prior to submission to the Planning Commission for approval consideration. The Planning Commission shall have the authority to approve all master sign plans and amendments as provided for herein.

b. One copy of the master sign plan shall be submitted to the Planning Department for staff review at the time of initial submittal.

c. At the completion of the review period, the applicant shall be responsible for providing 13 complete copies incorporating any staff revisions.

3. **Appeals.** The applicant may appeal the Planning Commission's decision regarding a master sign plan to the Board of Aldermen, provided such appeal is furnished in writing to the Planning Department within 30 days of the Commissions decision. The applicant must clearly state the reasons for appealing the matter to Board of Aldermen. Upon receipt of a proper appeal notice from the applicant, the Planning Department will place the matter before the Board of Aldermen at its next available meeting for consideration. The Board of Aldermen may uphold, reverse, or modify the Commission's decision. The Board of Aldermen's decision on the appeal is final.

4. **Amendments to approved master sign plans.**

   a. The Planning Director shall determine whether paragraph b below is applicable in any given case. All changes to an existing master plan require a formal application with all required information, as determined by the Planning Department, to enable the staff and the Planning Commission to properly evaluate the requested change.

   b. Non-substantive deviations from approved master sign plans are permissible with approval from the Planning Director. A deviation is insignificant if it results in only minor changes to the master sign plan and to the overall appearance of the development (minor changes are defined as, but not limited to, sign size, letter styles, materials, etc.). Decisions shall be made on a case-by-case basis.

   c. Substantive modifications of an approved master sign plan greater in scope than what is described in paragraph b above are permissible only with the approval of the Planning Commission.

5. **Master sign plan requirements.**

   a. The master sign plan is a document combining text descriptions of the physical properties of all property signage and typical color graphics. Logo limited to 20 percent of the approved sign area. The master sign plan shall provide at least the following elements.

      (1) A design review function is to be performed on behalf of the owner of the multi-tenant center. This may be achieved by designating an architect, landscape architect, or graphic designer as the official review person to which all proposed signage must be submitted by the tenants, prior to application for sign permits. Include the name, address, telephone and fax number for the designated review person. Written approval of the official reviewer shall be required in order to receive the individual sign permit.

      (2) Color graphics and text description of the shopping center facade showing wall sign locations.

      (3) Color graphics and text description of a wall sign, presenting the types of materials, colors, type style, minimum and maximum dimensions, and type of illumination.

(4) Color graphics and text description of each of the type styles and logos that comprise the chosen graphic theme or image that the shopping center is attempting to project.

(5) Color graphics and text description of any freestanding identification or multiple business sign, indicating the locations, actual materials, colors, type style, logos, dimensions, manner of attachment, and type of illumination, support walls with decorative caps, etc.

(6) A map indicating the location of all proposed signs. A section addressing the procedure each tenant must follow in order to secure a sign permit from the Town Planning Department.

(7) A section addressing changes and updates to the master sign plan.

(8) A text list of the types of prohibited signs.

(9) A statement that:
"Any change in a sign by any tenant from the approved master sign plan will cause a uniform change or will require the applicant to obtain a statement from the official review person which assesses the extent to which the variation from the plan is in keeping with the intent and goals of the plan, and the extent to which the change is acceptable to the owner."

b. Proposed changes shall be submitted to the Planning Director, who shall determine whether they are "substantive" or "non-substantive" changes to the master sign plan. Non-substantive changes may be approved by the Planning Director; substantive changes require an amendment to the master sign plan submitted to the Planning Commission.

(Ord. No. 3376, § 17, 1-17-06)

7.6. Outdoor lighting standards.

A. **Applicability.** The standards of this section shall not apply to:

1. Individual residential lighting that is not part of a site plan or subdivision plan.
2. Lighting associated with temporary uses that have been permitted. Seasonal lighting that is part of customary holiday decorations and annual civic events.
3. Lighting associated with sign illumination as set forth in Section 8.8.
4. Municipal lighting installed for the benefit of public health, safety, and welfare.

B. **Lighting plan.** Any proposed development requiring a site plan or subdivision plan shall include, as part of site plan or subdivision plan submission, a detailed exterior lighting plan. This plan shall include:

1. Specifications for the lighting fixtures such as: type of unit (cutoff, non-cutoff, glare shields, etc.), lamps (wattage, etc.), electrical load requirements, utility company involved, method of wiring, routing/location of lines, location of lights, and mounting heights.

2. An iso-footcandle plan that shows typical footcandle contours or a point photometric grid that indicates footcandle levels measured at grade across the site. Other information such as: maximum, average, and minimum site footcandles, uniformity ratio (average/minimum), and depreciation factors should also be included.

C. **Final acceptance.** Before certificates of occupancy are released, the owner/builder must supply the Town with a final letter of certification from the lighting engineer, lighting manufacturer, or authorized lighting contractor verifying that all site lighting is installed according to Town standards, the approved plans, and any applicable conditions.

D. **Street lighting.**

1. **Street lighting required.** All streets and sidewalks shall be sufficiently illuminated to ensure the security of the street right-of-way and safety of persons using such areas. To comply with this provision, the applicant shall coordinate with the utility company and the Town to see that all necessary facilities for the eventual installation of street lights are put in place.

2. **Town responsibility.** The Town shall be responsible for requesting the utility company to install street lights. Such lights shall be consistent with the Town's standard street light package with regard to fixture type, intensity, pole type, length, and spacing.

3. **Developer responsibility.** The developer shall be responsible for the placement and operation of necessary lighting in common areas not dedicated to public use. The developer shall also be responsible for the placement and operation of any streets lights placed in the public right-of-way that are not consistent with the Town's standard lighting package. Such lights shall be approved by the Town Engineer.

E. **Site lighting design requirements.** All lighting fixtures designed or placed so as to illuminate any portion of a site shall meet the following requirements:

1. **Fixture (luminaire).** The light source shall be completely concealed within an opaque housing and shall not be visible from any street right-of-way. The Planning Director may approve, at his or her discretion, alternative fixture types that have an opaque housing if it is designed to reduce/prevent light trespass and glare from being projected into adjoining properties or street rights-of-way. Additionally the Planning Director may allow the use of floodlights in the rear of non-residential buildings that are not adjacent to residential uses or residentially zoned properties and are not visible from public or private roadways when it is determined there are not measurable impacts to impacts that result.

   If floodlights are permitted, in additional to meeting the locational restrictions noted above, they 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 such fixture with a side-to-side

horizontal aiming tolerance not to exceed 15 degrees from perpendicular to the right-of-way. Glare shields must be added to reduce glare when specified by the Town of Garner Planning Director.

2. **Light source (lamp).** Only incandescent, florescent, metal halide, induction lighting may be used. High pressure sodium lighting may be used if approved by the permit issuing authority. The same type must be used for the same or similar types of lighting on any one site throughout any master-Planned Development. The Planning Director is authorized to allow minor deviations from this requirement solely at his or her discretion based upon individual site conditions.

3. **Mounting.** Fixtures shall be mounted in such a manner that the cone of light directly under the fixture does not cross any property line of the site.

   a. All outdoor lighting fixtures shall be located a minimum of ten feet from a property or right-of-way line, and should be kept out of and at least two feet away from any required perimeter or streetscape buffer, and tree save area. If forward throw fixtures are used the minimum setback distance may be reduced to a minimum of five feet from a property or right-of-way line if such setback reduction is deemed appropriate by the Planning Director.

   b. Lighting for outdoor display areas, such as auto dealerships, must be located inside the illuminated area or no more than ten feet away from the outside edge of the illuminated area so that the amount of direct glare and the visual field of view does not present a safety hazard to the passing motorist.

4. **Mounting heights.** Outdoor lighting fixtures shall be designed, located and mounted at heights no greater than:

   a. Thirty feet above grade for non-cutoff lights; and

   b. Thirty-seven feet above grade for cutoff lights.

   c. Mounting height is measured from the finished grade or surface and includes the total height of the fixture, pole, and any base or other supporting structure required to mount the lights.

   d. All wall packs must be full cut-off.

5. **Architectural/site compatibility.** Lighting fixtures shall be off a design and size compatible with the principal building of a development and adjacent areas, and shall be designed to be an integral part of the entire development site.

6. **Illumination levels.** All site lighting shall be designed so that the level of illumination as measured in footcandles (fc) at any one point meets the standards in the table below. The minimum light level for all illuminated areas shall be no less than 0.2 footcandles maintained. Average level is a not to exceed value calculated using only the area of the site intended to receive illumination. It is recognized that the site lighting of some land uses may need to be evaluated on a case by case basis, therefore the permit issuing authority may allow deviations from these standards if it concludes that the objectives underlying these standards can be met without strict adherence to them, provided there are no excessive measurable impacts to adjoining properties that result and it finds that such deviations are more likely to satisfy the standards listed below.

	Horizontal Illumination (maintained f.c.)		
Level of Activity	**Maximum**	**Average**	**Uniformity Ratio (average/ minimum)**
HIGH **Major athletic, cultural and civic facilities** **Regional retail** **Retail with drive-thru**	9.0	3 to 5	4 to 1
MEDIUM **Cultural, civic and recreational facilities** **Residential complex** **Commercial, general**	6.0	2 to 4	4 to 1
LOW **Neighborhood retail** **Industrial facilities** **Educational facilities** **Churches**	5.0	1.5 to 3	4 to 1

Location	Horizontal Illumination (average)	Uniformity Ratio (initial footcandles)
Active entrances and vital locations (security)	5.0	4 to 1
Inactive entrances	1.0	4 to 1
Private sidewalks (residential)	0.3	4 to 1
Private sidewalks (nonresidential)	0.8	6 to 1
Vehicular use area (service areas, approach ways, private access roads, etc.)	1.0	4 to 1
Storage yards (active)	5.0	6 to 1
Storage yards (inactive)	1.0	6 to 1
Loading docks and platforms	15.0	2 to 1
Vehicle sales and display	20.0	2 to 1
Recreational areas (fields, playgrounds, courts)	20.0	4 to 1

F. **Lighting required for specific uses.**

1. **Roads, driveways, sidewalks and parking lots.** All roads, driveways, sidewalks and parking lots shall be sufficiently illuminated to ensure the security of property and safety of persons using such areas and facilities. Where such roads, driveways, sidewalks or parking lots fall on private property, the responsibility for lighting such areas shall fall upon the developer.

2. **Entrances and exits in nonresidential and multifamily projects.** All entrances and exits in buildings used for nonresidential purposes and open to the general public, along with all entrances and exits in multifamily residential buildings containing more than four units, shall be adequately lighted to ensure the safety of persons and the security of the building.

3. **Canopy area lighting.** All development that incorporates a canopy area over fuel sales, automated bank machines, or similar installations shall use recessed a lens cover is flush with the bottom surface of the canopy that provides a cutoff or shielded light distribution. Areas under a vehicular canopy shall have an average of 12 footcandles as measured at ground level at the inside of the outside edge of the canopy.

G. **Roof lighting.**

Commentary: Many businesses use tasteful roof lighting not only to increase the visibility of their establishments, but to add visual structure to the nighttime sky of the Town. This section is intended to prevent gaudy, harsh, glaring, loudly contrasting and otherwise distasteful roof lighting within the Garner planning jurisdiction.

1. **Application.**
   a. An application for a permit authorizing a project including the use of roof lighting shall include a roof lighting plan containing sufficient information to determine whether the roof lighting, if installed as proposed, will meet the standards and intent of this section.
   b. Whenever a roof lighting plan is submitted pursuant to this section, it may be referred to the Planning Commission to obtain the Commission's recommendation on the compliance of the plan with this section.
2. **Roof lighting standards.**
   a. All bulbs or tubing shall be encased so that the bulb is not naked and that direct glare is prevented.
   b. Complete outlining of the roof is not permitted.
   c. Lights shall not run along the highest peak of a roof line, except that perimeter lighting around the top of a flat roof is allowed.
   d. Roof lighting that qualifies as a sign under this UDO is prohibited.

H. **Excessive illumination.**

1. Lighting within any lot that unnecessarily illuminates and substantially interferes with the use or enjoyment of any other lot is prohibited. Lighting unnecessarily illuminates another lot if it clearly exceeds the requirements of this section, or if the standard could reasonably be achieved in a manner that would not substantially interfere with the use or enjoyment of neighboring properties.
2. Lighting shall not be oriented so as to direct glare or excessive illumination onto streets in a manner that may distract or interfere with the vision of drivers on such streets.
3. Illumination using bare illuminated tubing or strings of lights that completely outline or define property lines, sales areas, roofs, doors, windows or similar areas in a manner that is not primarily for safety purposes is prohibited.

I. **Special requirements in the Timber Drive Overlay District.**

1. A site lighting plan must be provided as part of any development plan submittal for property within the overlay district and shall contain the following information:
   a. Lighting plan shall be superimposed on the site plan with the location of all poles and fixtures and reference for the height of each fixture, including a specification detail; and
   b. The distribution and intensity levels of illumination for each fixture producing a contour diagram of the light intensity delineated in footcandle measurements must be indicated.
2. The following are lighting standards for new development within the Timber Drive Overlay District.

Standard	
Type of fixture	High Pressure Sodium or alternative authorized by the permit-issuing authority with cut-off (no glare on streets or outside boundaries of the lot is permissible)
Height	Maximum of 37 feet
Footcandle	Not to exceed 250 watts at perimeter of lot; average footcandle on interior lot areas not to exceed an average of three footcandles

3. The permitting authority may approve deviations from these presumptive standards if it concludes that objectives underlying these standards can be met without strict adherence to them, provided there are no excessive measurable impacts to adjoining properties and it finds that such deviations are more likely to satisfy the above noted standards.
4. Any exterior lighting planned on a building must be approved by the permit issuing authority and shall exclude excessive and garish lighting schemes as determined by the permit issuing authority.

J. **Special requirements in the U.S. 70/401 Thoroughfare Overlay.**

1. A site lighting plan must be provided as part of any development plan submittal for property within the overlay district. Such plan and shall meet the following information.
   a. A lighting plan shall be superimposed on the site plan with the location of all poles and fixtures and reference for the height of each fixture, including a specification detail.
   b. The distribution and intensity levels of illumination for each fixture producing a point-by-point footcandle plan at intervals no greater than 20 feet.
   c. The plan should include average footcandles maintained and the average to minimum ratio.

2. The following lighting standards for new development shall apply within the U.S. 70/401 Thoroughfare Overlay District.

Standard	
Type of fixture	Cut-off Control Fixtures Recommended; Semi-cutoff Fixtures may be considered if appropriate
Height	Maximum of 37 feet
Footcandle	Average maintained footcandle not to exceed an average of 5 footcandles; average to minimum ratio 4:1 to maintain uniformity; spill over adjacent property not to exceed .2 footcandles

3. The permitting authority may approve deviations from these presumptive standards if it concludes that the objectives underlying these standards can be met without strict adherence to them, and that there are no excessive measurable impacts to adjoining properties, and it finds that such deviations are more likely to satisfy the above noted standards.
4. Any exterior lighting planned on a building must be approved by the permit issuing authority and shall exclude excessive and garish lighting schemes as determined by the permit issuing authority.

(Ord. No. 3396, § 14, 4-3-06)

7.7. Access standards.

A. **On N.C. DOT streets (both sides).** From right-of-way line of street, along right-of-way of driveway or street to a point ten feet from the intersection of the right-of-way; from same point, along right-of-way 70 feet; with remaining side connecting these two points. These sight triangles shall be kept clear of any such visual obstructions between two and one-half feet and ten feet in height.

B. **On all streets.** From right-of-way line of street, along centerline of driveway or street to a point ten feet from the intersection of the centerline and the back of curb; from same point, along the center of travel lane a distance of ten times the posted speed limit; with remaining side connecting these two points. These sight triangles shall be kept clear of any such visual obstructions between two and one-half feet and ten feet in height.