

CHAPTER 6: ENVIRONMENTAL PROTECTION & OPEN SPACE

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CHAPTER 6: ENVIRONMENTAL PROTECTION & OPEN SPACE

Section 6.1 Purpose

The purpose of this Chapter is:

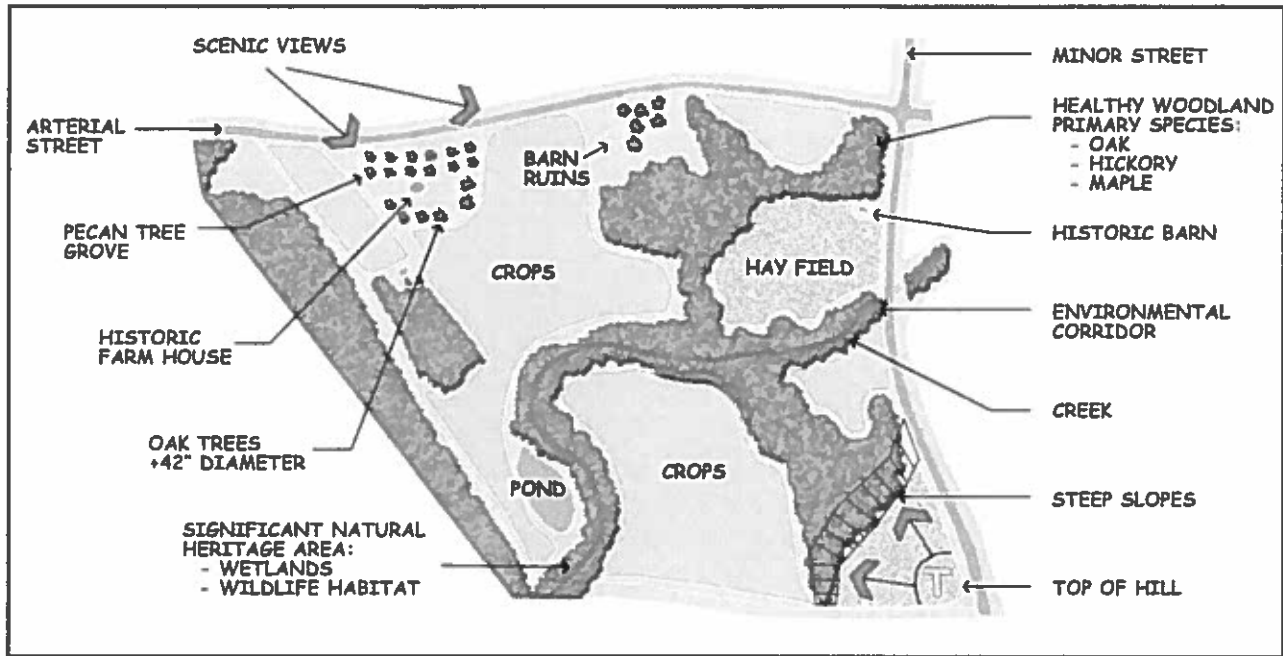
- To protect existing environmental resources including streams, wetlands, floodplains, soils, forest stands, specimen trees and other significant vegetation and wildlife.
- To protect life and property
- To promote the preservation of open space in environmentally sensitive areas
- To provide recreational amenities for the residents of the City.

Section 6.2 Environmental Assessment & Existing Features Plan

- A. Existing Features Plans are required for the Sketch Plan step of all subdivisions of greater than five (5) lots and with Site Plan applications for developments of greater than one (1) acre and shall be submitted in accordance with Section 12.2. This plan shall include soils, topography, ecology, drainage, past uses, adjacent uses, and existing vegetation, structures, roads, and utilities. See Fig. 6.1 on following page.
- B. Site design shall take the Existing Features Plan into consideration with regard to existing and adjacent land uses, the *City of Waltherboro Comprehensive Plan*, and other plans. The design shall provide adequate internal access and safe and suitable external access that is well integrated with existing roads, prevent adverse impacts to adjacent land uses, provide adequate usable open space and connections to existing parks and recreational activities as possible, and assure compatibility with the City's future growth plans. See Fig. 6.1 on following page.
- C. Natural features of the site shall be preserved and impacts to sensitive environmental areas minimized to the extent practicable when designing the development. The design shall also avoid impacts to ground water and aquifer recharge by avoiding clear cutting, reducing impervious cover, and other activities. The following natural features and resources shall be identified:
1. watercourses
 2. wetlands
 3. unique natural areas
 4. floodplains and floodways
 5. endangered species habitats
 6. historic structures
 7. any flowering tree two (2) inches in diameter at breast height (DBH) or larger and all other trees of 10 inches DBH or larger
 8. large stands of trees
 9. viewsheds
 10. steep slopes

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FIG. 6.1: EXAMPLE EXISTING FEATURES PLAN



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Section 6.3 Tree Protection

6.3.1 Applicability

- A. This Section shall apply to all protected trees located within rights-of-way, parks, public places, and private property located within the corporate limits of the City of Waltherboro as amended. Protected tree shall mean any flowering tree two (2) inches in diameter at breast height (DBH) or larger and all other trees of 10 inches DBH or larger. See Fig. 6.2 on the following page.
- B. Utility companies, electric suppliers and governmental agencies in the course of constructing or maintaining easements for water, sewer, electricity, gas, drainage, telephone or television transmission or rights-of-way shall only be exempt from the provisions of this Section if the applicable company, supplier or agency has executed an agreement with the city which, at a minimum: recognizes the need to minimize trimming of protected grand trees which do not substantially interfere with the intended purposes of construction and maintenance; follows ISA Best Management Practices for utility pruning; identifies the saving of grand trees as a factor to be considered in the design process; and allows for a consultation process with the city prior to the commencement of major construction or maintenance or the removal of grand trees. A breach of such agreement constitutes a violation of this Section and a loss of the exemption provided for herein.

6.3.2 Tree Removal & Protection

- A. It shall be unlawful for any person to fell, injure or destroy any living or dead protected tree within the corporate limits of the City of Waltherboro, except with approval of a Tree Permit as provided for in Section 11.6.
- B. Reasonable measures must be taken during construction or development and shown on a tree protection and site mobilization plan to protect remaining trees from damage or injury in the following ways:
1. Prior to any construction, tree protective barriers (such as silt fencing or orange safety fencing) shall be placed around all landscaping to be saved or around root protection area(s), to prevent damage to existing landscaping (See Fig. 6.3). These barricades shall be installed prior to grading, construction, or other land disturbing activity, and cannot be constructed from any material not substantial enough to protect the roots, trunks, and crown of the tree. The barricade standards or rails shall be placed a minimum distance of six (6) feet from the edge of the trunk and no less than the dripline of the tree.
 2. No soil disturbance or compaction, stock piling of soil or other construction materials, vehicular traffic, storage of heavy equipment are allowed in the tree and root protection area, or within the dripline of trees to be retained.
 3. Paving of area within an existing tree's dripline is strongly discouraged.
 4. Root pruning should be kept to an absolute minimum.
 5. No ropes, signs, wires, unprotected electrical installation or other device or material, shall be secured or fastened around or through a tree or shrub.
 6. Unprotected electrical service wires should not be allowed to come into contact with any tree.

FIG. 6.2 TREE MEASUREMENT TERMS

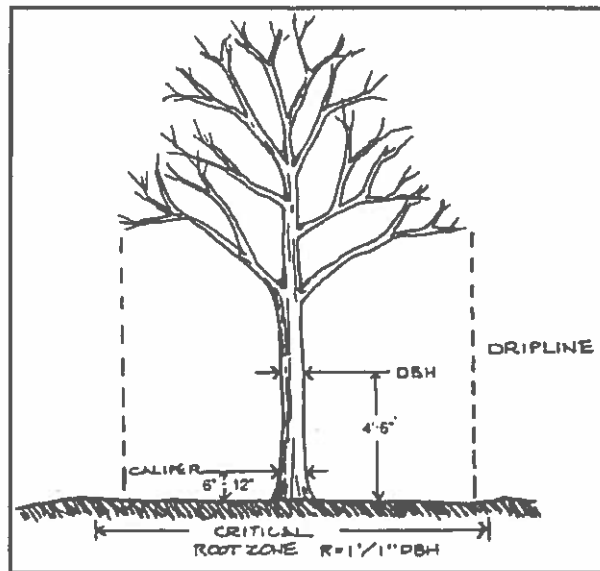
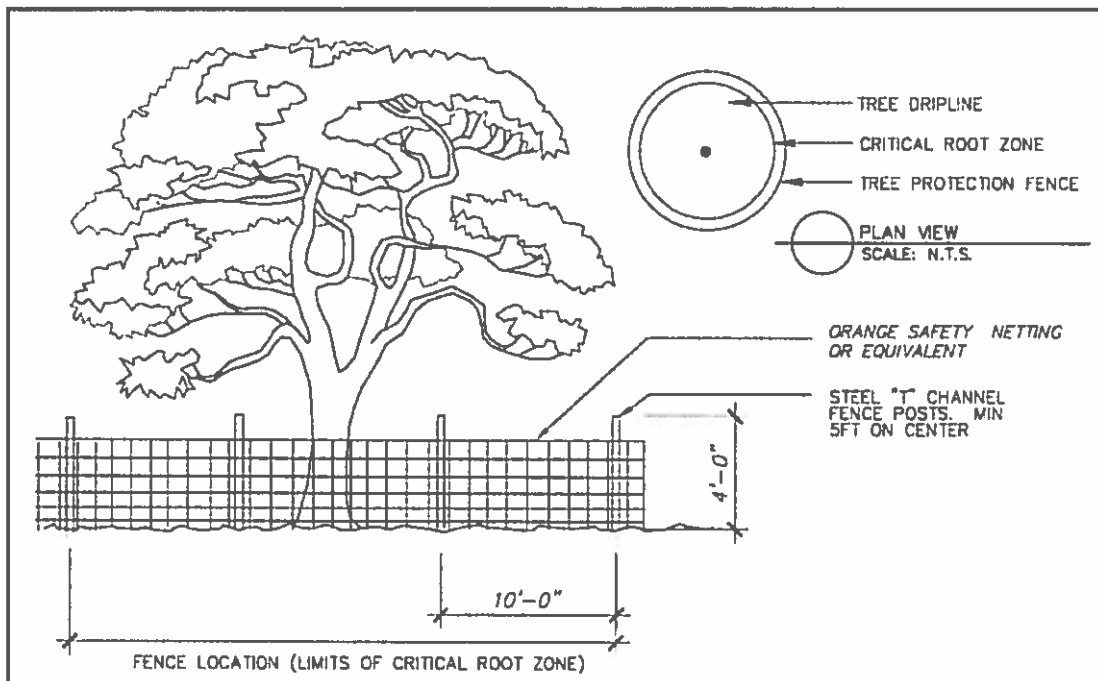


FIG. 6.3 TREE PROTECTION DETAIL



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6.3.3 Mitigation

- A. The removal of any protected tree authorized by permit shall be mitigated by planting new trees from the *South Carolina Urban Species Guide*. The replacement trees shall have a minimum two (2) inch DBH; provided, however, for protected flowering trees replacement flowering trees of one (1) inch DBH minimum are acceptable. The number of trees required shall have a total DBH equal twenty-five (25) percent of the total diameter of the trees requiring mitigation, except for grand trees which shall require a minimum of 12 inches DBH of mitigation per grand tree. A grand tree shall mean any tree of 24 inches DBH or larger.
- B. All mitigation shall be carried out on the site from which the trees were removed, unless otherwise approved by the Tree Committee.
- C. The removal of any protected tree authorized by permit on lots containing owner-occupied single-family dwellings may be exempt from mitigation on a case-by-case basis as determined by the Tree Committee. The Tree Committee will take into account the reason(s) for the removal, impact on the tree population density of the neighborhood and the lot configuration, financial hardship for the property owner, and any other pertinent factors in its mitigation recommendation. In no circumstances will mitigation exceed the parameters outlined in Subsection (A).
- D. In lieu of on-site mitigation, the property owner or developer may elect to contribute the amount specified on the adopted Comprehensive Fee Schedule times the total diameter in inches of the required mitigation trees. The funds generated by this mitigation provision shall be deposited in the City Tree Fund.
- E. Protected trees removed without a permit shall be mitigated at a rate of 100 percent of the diameter of the protected trees removed, unless otherwise approved by the Tree Committee. Illegally removed trees shall be mitigated on site unless otherwise approved by the Tree Committee.
- F. All trees planted as mitigation shall be properly maintained for a minimum period of 24 months after planting. Any trees which fail to survive for 24 months shall be replaced during this period, and all replacement mitigation tree(s) shall be properly maintained and replaced as required of mitigation trees by this subsection.
- G. Trees removed because they are dead do not require mitigation if the loss of the tree is of no fault of the owner/resident or any other person in order to circumvent the purpose of this ordinance.
- H. The removal of pine trees by permit does not require mitigation, unless multiple trees are removed so as to constitute clear-cutting. The mitigation for the permitted clear-cutting of pine trees may be reduced or exempted on a case-by-case basis as determined by the Tree Committee. The Tree Committee will take into account the reason(s) for the removal, impact on the tree population density of the neighborhood and the lot configuration, financial hardship for the property owner, and any other pertinent factors in its mitigation

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recommendation. In no circumstances will mitigation exceed the parameters outlined in this Subsection (A).

- I. Trees identified by the *South Carolina Exotic Pest Plant Council Non-Native Plant Species List* do not require mitigation.

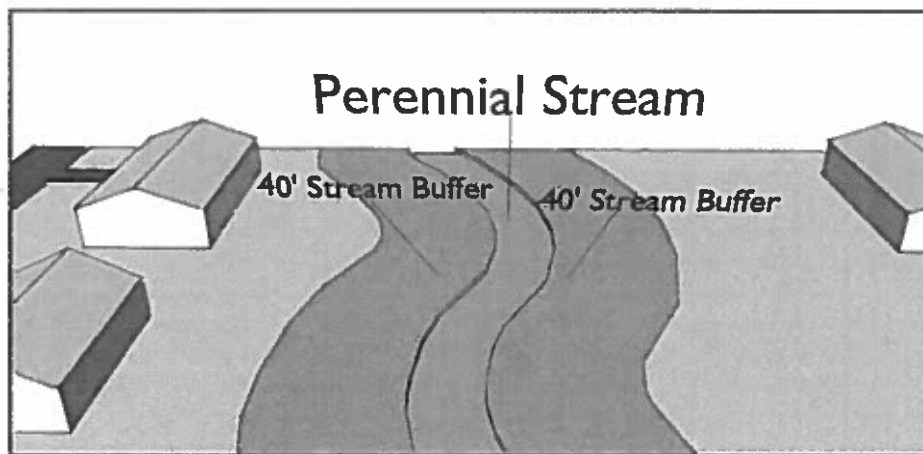
6.3.4 Administration

- A. The Administrator and/or other designee(s) of the City Manager shall administer this Section and shall consult with the City Manager, the City Parks Director and persons knowledgeable about trees as needed.
- B. During the period of an emergency, such as during the recovery period following a tornado, hurricane, ice storm, flood or any other act of nature or disaster, the requirements of this Section may be waived by the City Manager for a period not to exceed thirty (30) days. The waiver period may be extended for a longer period by the action of City Council. In such cases, the waiver shall apply only to felled or severely damaged trees which pose a safety hazard.

Section 6.4 Stream & Wetlands Buffers

Buffers shall be established on all perennial streams and wetlands. The buffer shall be located a minimum of 40 feet from each side of the stream bed or wetland delineation. Buffers shall remain undisturbed except that narrow pervious walking paths may be utilized as part of the open space for a development.

FIG. 6.4: STREAM BUFFER PROTECTION



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Section 6.5 Flood Damage Control

6.5.1 Statutory Authorization

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

6.5.2 Findings of Fact

The City flood hazard areas are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

Such 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 hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed or otherwise unprotected from flood damages.

6.5.3 Statement of Purpose

The purpose of this Section shall be to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers that are involved in the accommodation of floodwaters;
- D. Control filling, grading, dredging and other development which may increase erosion or flood damage; and
- E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

6.5.4 Objectives

This Section has the following objectives:

- A. Protection of human life and health;
- B. Minimization of expenditure of public money for costly flood control projects;
- C. Minimization of the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

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- D. Minimization of prolonged business interruptions;
- E. Minimization of damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, street and bridges located in floodplains;
- F. Maintenance of a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize flood-blight areas; and
- G. Notification of potential home buyers that property is in a flood area.

6.5.4 Applicability of Section

This Section shall apply to all areas of special flood hazard within the City's jurisdiction.

6.5.5 Establishment of Areas of Special Flood Hazard

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Hazard Boundary Map (FHBM).

6.5.6 Development Permit Required

A development permit shall be required in conformance with the provision of this Section.

6.5.7 Compliance Required

No structure or land hereafter shall be located, extended, converted or structurally altered without full compliance with the terms of this Section and other applicable regulations.

6.5.8 Conflicts; Greater Restrictions Prevail

This Section is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this Section and another provision conflicts or overlaps, whichever imposes the more stringent restrictions shall prevail.

6.5.9 Interpretation

In the interpretation and application of this Section, all provisions shall be:

Considered as minimum requirements;

Liberal construed in favor of the governing body; and

Deemed neither to limit nor repeal any other powers granted under State statutes.

6.5.10 City's Disclaimer of Liability

The degree of flood protection required by this Section is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This Section does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Section shall not create liability on the part of the City or by any officer or employee thereof for any flood damages that result from reliance on this Section or any administrative decision lawfully made thereunder.

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6.5.11 Administrator & Responsibilities

The Building Official or designated employee is hereby appointed to administer and implement the provisions of this Section. The duties of the Building Official or designated employee shall include, but shall not be limited to the following:

- A. Review all development permits to ensure that the permit requirements of this Section have been satisfied.
- B. Advise permittee that additional Federal or State permits may be required, and if specific Federal or State permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit.
- C. Notify adjacent communities and the State Water Resources Commission prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- D. Ensure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- E. Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings.
- F. Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved buildings have been flood-proofed.
- G. In coastal hazard areas, certification shall be obtained from a registered professional engineer or architect that the building is designed to be securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash.
- H. In coastal high hazard areas, the Building Official shall review plans for adequacy of breakaway walls, as provided herein.
- I. When floodproofing is utilized for particular building, the Building Official shall obtain certification from a registered land surveyor, professional engineer or architect.
- J. Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard, for example, where there appears to be a conflict between a mapped boundary and actual field conditions, the Building Official shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation, as provided herein.
- K. When base flood elevation data or floodway data have not been provided in accordance with the flood control damage Section, the Building Official shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer the provisions of the flood control damage Section.

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- L. All records pertaining to the provisions of this section shall be maintained in the office of the Building Official and shall be available for public inspection.

6.5.12 Permit Procedures

- A. A development permit, issued by the Building Official, is required prior to commencement of any development activity. Permit applications shall be in a form prescribed by the Building Official. Such forms may require applicants to provide:
 - 1. Plans, in duplicate, drawn to scale, showing the nature, location, dimensions, and elevations of the area in question; and
 - 2. Existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing.
- B. Specifically, the following information shall be required:
 - 1. The elevation in relation to mean sea level of the proposed lowest floor (including basement) of all buildings;
 - 2. The elevation in relation to mean sea level to which any nonresidential building will be floodproofed; and
 - 3. A description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.

6.5.13 Variance Procedures, Requirements and Appeals

- A. The Board of Zoning Appeals shall hear and decide appeals and requests for variances from the requirements of this Section.
- B. The Board of Zoning Appeals shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Building Official in the enforcement or administration of this Section.
- C. Any person aggrieved by the decision of the Board of Zoning Appeals may appeal such decision to the court of common pleas.
- D. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the state inventory of historic places without regard to the procedures set forth in the remainder of this section.
- E. In passing upon such applications, the Board of Zoning Appeals shall consider the following:
 - 1. All technical evaluations;
 - 2. All relevant factors;
 - 3. All standards specified in other sections of the Section;
 - 4. The danger that materials may be swept onto other lands to the injury of others;
 - 5. The danger to life and property due to flooding or erosion damage;
 - 6. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - 7. The importance of the services provided by the proposed facility to the community;
 - 8. The necessity of the facility to a waterfront location, in the case of a functionally dependent facility;

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9. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
10. The compatibility of the proposed use with existing and anticipated development;
11. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
12. The safety of access to the property in times of flood for ordinary and emergency vehicles;
13. 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
14. 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, water systems and streets and bridges.

Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level; providing subsections 1 through 14 of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

- F. Upon consideration of the factors listed subsection (e) of this section, and the purposes of this Section, the Board of Zoning Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Section.
- G. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result therefrom.
- H. Conditions for variances:
 1. Variances shall be issued only upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 2. Variances shall be issued only upon:
 - a. A showing of good and sufficient cause;
 - b. A determination that the failure to grant the variance would result in exceptional hardship; and
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 3. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lower floor elevation than the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
 4. The Building Official shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

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6.5.14 Special Flood Hazard General Requirements

In all areas of special flood hazard the following provisions shall be required:

- A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- B. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- C. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- D. 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.
- E. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- F. New and replacement sanitary sewerage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
- G. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

6.5.15 Special Flood Hazard Mobile Home Requirements

All mobile homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that:

- A. Over-the-top ties be provided at each of the four corners of the mobile home, with two additional ties per side at intermediate locations and mobile homes less than 50 feet long requiring two additional ties per side;
- B. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points and mobile homes less than 50 feet long requiring four additional ties per side;
- C. All components of the anchoring system be capable of carrying a force of 4,800 pounds; and
- D. Any additions to the mobile home be similarly anchored.

6.5.16 Subdivision Proposal Standards

- A. All subdivision proposals shall be consistent with the need to minimize flood damage.
- B. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

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- C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- D. Base flood elevation data shall be provided for subdivision proposals and other proposed development which is greater than the lesser of 50 lots or five acres.

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Section 6.6 Open Space Requirements

6.6.1 Applicability

The requirements of this Section apply to new developments with greater than five (5) residential dwelling units in which the construction of new streets is proposed. Developments in which all lots are (5) acres or more are exempt from this provision.

6.6.2 General Provisions for Open Space

- A. Land designated as open space on the approved development plan shall be maintained as open space and may not be separately sold, subdivided, or developed.
- B. Access from a public or private street shall be provided to all designated open space with a minimum 15 foot wide access to the open space area. Lakes or ponds within the development used as open space shall provide adequate community access beyond this 15 foot minimum as determined by the Administrator.
- C. Open space shall be contiguous wherever possible.

6.6.3 Minimum Open Space Dedication

Open space shall be dedicated in accordance with the table below. Percentages are based on total development area.

Density (DUA)	Percent Open Space*
0.2 DUA or less	0%
0.21 DUA-2.0 DUA	5%
2.1 DUA-4.0 DUA	10%
More than 4.0 DUA	15%

*Conservation Development minimum open space dedication shall meet the requirements of the Section 3.2.5.

How to Calculate DUA (Dwelling Units Per Acre):

$$\frac{\text{Total Number of Dwelling Units}}{\text{Total Development Area in Acres}} = \text{DUA}$$

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6.6.4 Types of Open Space

All required open space shall be classified in accordance with this Section. Dedicated open space shall fit into one or more of the following categories and be classified as private common area open space or public open space. The Existing Features Plan should be used as a guide for the City and the developer to determine the most appropriate open space type and location. Also City and County plans, particularly park and open space plans, shall be considered when evaluating the most appropriate open space type.

A. **Playground**-Playgrounds are for active recreational use and provide sunny and shaded play equipment and play areas for children as well as open shelter with benches. Playgrounds may be part of other types of open space, such as parks, or may stand alone.

- Minimum Size: 10,000 square feet



B. **Square**-Squares are areas for passive recreational use. Squares shall be bounded by streets on a minimum of 50 percent of their perimeter. Squares are encouraged to be entirely bounded by streets and/or lanes. Squares shall be planted parallel to all streets and shall contain canopy trees along street frontages.

- Minimum size: 2,000 square feet



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- C. **Park**-Parks may be designed for passive and/or active recreational use. Parks shall be bounded by streets on a minimum of 10 percent of their perimeter. Large parks should create a central open space which services an entire neighborhood or group of neighborhoods; or incorporates physical features which are an asset to the community (i.e. lake or river frontage, high ground, significant stands of trees). Undergrowth should be limited and landscaping shall be installed in a manner that promotes attractiveness and safety. Parks may be combined with greenways and greenbelts and may include golf courses and community gardens.

- Minimum size: 1 acre



- D. **Green**- The green is an open space which is more natural. Like the square, it is small and surrounded by buildings. Unlike the square, it is informally planted and may have irregular topography. Greens are usually landscaped with trees at the edges and open lawns at the center. Greens should contain no structures other than benches, pavilions, and memorials; paths are optional.

- Minimum size: 20,000 square feet



- E. **Greenway**-Greenways are large, irregular open spaces designed to incorporate natural settings such as creeks and significant stands of trees within and between neighborhoods. Greenways are typically more natural and may contain irregular topography. Greenways shall be used for certain active recreational uses including, at a minimum, trails for walking, jogging, and biking. Greenways shall connect points of interest in the community such as schools, parks, and other civic uses.



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- F. **Greenbelt**-Greenbelts run along the perimeter of a neighborhood, and serve to buffer a neighborhood from surrounding non-compatible uses such as a highway corridor or industrial district, or a developed area from agricultural areas or adjacent cities. Greenbelts differ from the other types of open spaces in that they are left natural, and are not intended for recreational use.



- G. **Agricultural Preserve**-Open spaces designated as Agricultural Preserves shall be used for active farming in the form of crop cultivation, the keeping of livestock, or equestrian facilities. Agricultural Preserves are encouraged to protect areas of agricultural and rural heritage and promote compatible active agricultural operations.

- Minimum size: 5 acres



- H. **Nature Preserve**-Open spaces designated as Nature Preserves shall be left largely undisturbed except for the optional clearing of underbrush for the provision of a walking trail (mulch or other natural material only). Nature Preserve areas are encouraged to protect large stands of trees, wildlife, and natural water features. Nature Preserves are the preferred form of open space for steep slopes in excess of 25 percent grade.

- Minimum size: 3 acres



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6.6.5 Open Space Ownership & Maintenance

- A. Open space may be owned or administered by one or a combination of the following methods:
- Fee simple ownership by a unit of government or private non-profit land conservancy;
 - Common ownership by Homeowners Association;
 - Split deeded ownership by individual property owners within the subdivision;
 - By individual private ownership such as a farmer, developer or other private entity that maintains the open space in accordance with the purposes of this Chapter. (i.e. farming, equestrian facility).
 - Deed restricted open space easements on individual private properties.
- B. The City Council shall have the authority to accept or reject land dedications made as a requirement of this Section.
- C. The owner of dedicated open space shall be responsible for the continuing upkeep and proper maintenance of the same.
- D. In the case of common ownership by a Homeowners Association, the restrictive covenants shall provide that, in the event the Homeowners Association fails to maintain the open space according to the standards of this Ordinance, the City may, following reasonable notice, demand that deficiency of maintenance be corrected, or enter the open space to maintain it. The cost of such maintenance shall be charged to the Homeowners Association.
- E. The developer shall place in a conspicuous manner upon the Final Plat of the subdivision a notation concerning control of open space.
- F. The developer will provide proof of registration of the Sections of Incorporation with the appropriate state agency for the formation of the Homeowners Association to the Administrator.
- G. Homeowners' Associations or similar legal entities that are responsible for the maintenance and control of open space areas and common areas shall be established by the developer who shall record in the Register of Deeds a declaration of covenants and restrictions that will govern the association or similar legal entity. A copy of the recorded document shall be provided to the Administrator and such document shall include, but not be limited to, the following:
1. Provision for the establishment of the association or similar entity is required before any lot in the development is sold or any building occupied and membership shall be mandatory for each homeowner and any successive buyer.
 2. The association or similar legal entity has clear legal authority to maintain and exercise control over such common open space areas.
 3. The association or similar legal entity has the power to compel contributions from residents of the development to cover their proportionate shares of the costs associated with the maintenance and upkeep of such common areas. Further, assessments levied can become a lien on the property if allowed in the master deed establishing the homeowners association or similar legal entity.

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4. The open space restrictions must be permanent, not just for a period of years.
5. The association or similar legal entity must be responsible for liability insurance, applicable taxes and the maintenance of open space and other facilities under their control.
6. The association or similar legal entity must be able to adjust the assessment to meet changing needs.
7. The association shall be responsible for maintaining all public storm water drainage systems and easements within the subdivision not being maintained by the City, County, State or other approved entity.
8. It shall be expressly stated within the restrictive covenants/homeowners association documents that it will be the responsibility of the developer or successors or assigns to enforce such covenants or restrictions until such time as control has been transferred to the Homeowners Association Board of Directors. It shall be the sole responsibility of the developer, successor or assigns to correct any deficiencies prior to transfer of control over to the Homeowners Association Board of Directors.

6.6.6 Payment-in-Lieu of Dedication

- A. If open space within a development is physically impractical due to unusual conditions then the City may accept a fee paid in lieu of dedication.
- B. Fees collected in lieu of dedications and any proceeds from such transactions or sales shall be accounted for by the City, and the funds shall be used by the City for the purposes of acquiring and developing recreation, greenway and open space areas as shown on the land development plan or in the parks and recreation and greenway/bikeway master plans and for no other purposes. The depository for such funds may be the same as permitted other funds of the City, pending their expenditure in accordance with the terms of this code; such funds may be invested as other funds of the City. The City may, at its discretion, add additional monies to the fund for the purposes of purchasing open space and recreational land to be used for recreational purposes.
- C. Refunds shall not be granted to the developer should the project not be constructed after recording of Final Plat or if a reduction in density occurs.
- D. Such payment in lieu of dedication shall be the product of the current assessed market value of the land to be subdivided (as established in Subsection E below) multiplied by the number of acres to be dedicated.
- E. The current assessed market value of the gross land area of the development or subdivision at the time of submission of the required plan and/or plat shall be used to determine the land value. The current assessed market value shall be the appropriate value as determined by and maintained on file in the Colleton County Tax Office. The average value per gross acres shall be calculated from this total tax value and applied to the required recreational land area in order to determine the land value.

$$\frac{\text{TOTAL MARKET VALUE OF UNDEVELOPED PROPERTY}}{\text{TOTAL ACRES OF UNDEVELOPED PROPERTY}} \times \text{ACRES OF REQUIRED OPEN SPACE} = \text{PAYMENT}$$

CHAPTER 7:

LANDSCAPING REQUIREMENTS

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CHAPTER 7: LANDSCAPING REQUIREMENTS

Section 7.1 Purpose and Applicability

7.1.1 Purpose

The purpose of this Chapter is to enhance the appearance of the built environment and blend new development with the natural landscape, as well as regulate the installation and long-term management of trees and shrubs and to minimize potential nuisances, such as visual impacts, noise, dust, odor, litter, and glare of lights, from adjacent properties. Existing vegetation should be retained where possible to ensure a natural established landscape.

7.1.2 Applicability

- A. All new developments (except for infill single-family detached residential uses on existing lots) shall be designed in accordance with the requirements of this Chapter. Any expansion of an existing building or parking area or a significant change of use also requires compliance with the requirements of this Chapter, to the greatest extent possible as determined by the Administrator.
- B. Generally, the responsibility for screening is that of the more intense land use. However, new developments with a less intense use being constructed next to an existing more intense use shall provide the required landscaping on the new development's property.
- C. In cases where an existing, landscaped or vegetated area is located on the same property as the proposed development, further plantings and or improvements shall not be required so long as said screened area is of sufficient width and contains adequate and sufficient materials to meet the requirements of this Ordinance. If the landscaped or vegetated area is deficient, the developer shall make needed improvements and/or additions to satisfy the landscaping requirements and intent of this Ordinance.
- D. The vacancy or non-use of an adjoining parcel shall not constitute grounds for providing relief to the landscaping requirements contained in this Ordinance.

Section 7.2 General Provisions

- A. To the extent that existing natural vegetation located on the same parcel of land as the proposed development can meet the required landscaping levels of this Section, the use of such materials is encouraged. In such case, these areas shall be designated on the development plan as undisturbed vegetation areas.
- B. No structure other than a wall, fence, sidewalk, mailbox, sign, landscape feature or driveway shall be permitted within a required landscaping area. No off-street parking may take place in any required landscaping area. Where plant materials are required, the required amount of plant materials shall be installed on the side of any wall or fence opposite the new development.

CHAPTER 7: LANDSCAPING REQUIREMENTS

Section 7.3 Landscaping Types and Requirements

The provisions of this Section are designed to specifically address the application of landscape resources to varying styles of development and the impact of such applications on the appearance, health, and financial well-being of the community. The provisions are broken into four (4) landscaping categories:

- A. Buffer Yards
- B. Building Yards
- C. Parking Lot Yards
- D. Street Yards

7.3.1 Buffer Yards

- A. Buffer yards are intended to screen non-residential development from residentially used or zoned property. Buffers shall be measured from the subject property line into to the site to be developed. Buffer yard width shall not affect the required building setback for each zoning district as set forth in Section 2.5. The following table establishes the minimum buffer width for a new or expanding non-residential development, multi-family residential development, or mobile home parks adjacent to residentially-zoned property (SFR, MDR, HDR) or property with an existing single-family or two-family residential use:

Zoning District of New or Expanding Non-Residential Development	Minimum Buffer Yard Width
RCD	0 feet
SFR	10 feet
MDR	10 feet
HDR	10 feet
NCD	15 feet
CBD	0 feet
GCD	15 feet
HCD	20 feet
IICD	25 feet
ID	30 feet

- B. Buffer yards shall function as opaque screens with a minimum height of six (6) feet. Composition of a required buffer yard shall include a wall or solid fence as well as a landscaped berm, planted vegetation, existing vegetation, or any appropriate combination of these elements to achieve adequate screening. Plantings should be staggered throughout the buffer yard and be planted to reduce gaps. At a minimum buffer yards shall include all of the following vegetation:

Vegetation Type	Number Required
Large Trees*	1 per 100 linear feet of property line
Medium or Small Trees	2 per 100 linear feet of property line
Shrubs	1 per 5 linear feet of property line

* Under overhead utility lines, two (2) small trees shall be used in lieu of each large tree required.

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- C. Vegetation shall be selected from the plant list in Section 7.4.1. At least 25 percent of the required trees, and at least 75 percent of the required shrubs, shall be evergreen species locally adapted to the area. The use of existing vegetation to satisfy this requirement is encouraged. Supplemental planting may be required in addition to existing vegetation.

See Fig. 7.3 for example Buffer Yard.

7.3.2 Building Yards

- A. The intent of Building Yards is to create a buffer between buildings and parking areas for pedestrians entering and exiting buildings and to improve the appearance of building entrances. Building yard width shall be based on the total area of the building. Widths shall be measured from the applicable building wall. Building yards shall be required on any side of a building where parking area is adjacent to a building façade with a general access entrance to the building. This shall not apply to the CBD or to single-family or two-family dwellings. The table below establishes the minimum building yard width and required composition of the building yard:

Total Building Area	Minimum Building Yard Width	Minimum Small Trees Required	Minimum Shrubs Required
Less than 2,500 square feet	3 feet	NA	1 per 5 linear feet of building yard
2,500-5,000 square feet	5 feet	1 per 50 linear feet of building yard	1 per 5 linear feet of building yard
5,000-30,000 square feet	8 feet	1 per 50 linear feet of building yard	1 per 5 linear feet of building yard
30,000-60,000 square feet	10 feet	1 per 30 linear feet of building yard	1 per 2 linear feet of building yard
Greater than 60,000 square feet	12 feet	1 per 30 linear feet of building yard	1 per 2 linear feet of building yard

NA=Not applicable

- B. Building yards may be crossed by entrance walkways of no greater than 10 feet in width. Vegetation shall be selected from the plant list in Section 7.4.1. At least 25 percent of the required trees, and at least 75 percent of the required shrubs, shall be evergreen species locally adapted to the area.

See Fig. 7.3 for example Building Yard.

7.3.3 Parking Lot Yard

- A. Parking lot landscaping is required within all parking lots of greater than 10 spaces except motor vehicle or boat sales display areas. Instead, perimeter landscaping around motor vehicle or boat sales display areas shall be utilized at the same rate as required in Subsection B below.

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- B. A minimum of one (1) large tree shall be located within 60 feet of every parking space (See Fig. 7.1 & 7.3). The measurement shall be taken from the base of the tree. Additionally, no more than four (4) parking rows shall be located back-to-back without the separation of a landscaping area a minimum of 10 feet wide (See Fig. 7.2).
- C. Large trees shall be planted in a manner that provides shade for parking area at maturity. Two (2) small trees shall be used in lieu of large trees under overhead utility lines. Each planting area shall be a minimum of 100 square feet, with a minimum dimension of 10 feet. Planting areas shall be protected with wheel stops or other stopping device.

FIG. 7.1 EXAMPLE PARKING LOT YARD

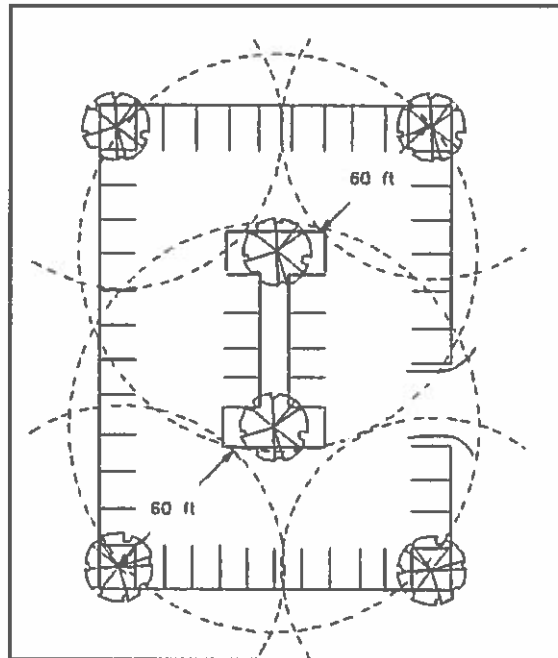


FIG. 7.2 EXAMPLE LANDSCAPING AREA FOR LARGE PARKING LOTS



Landscaping Area Separation



No Landscaping Area Separation

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7.3.4 Street Yards

- A. Street yards are required along all public streets for all uses except single-family and two-family residential. Street yards shall not be required in the CBD except where off-street parking areas abut public streets. Street yards shall be located entirely on the subject property and shall be measured from right-of-way line into the site to be developed. Street yard width shall not affect the required building setback for each zoning district as set forth in Section 2.5. All street yards shall be a minimum of 10 feet wide.
- B. At a minimum street yards shall include the following vegetation. Trees within street yards may count as parking lot yard trees if they are located within 60 feet of parking spaces.

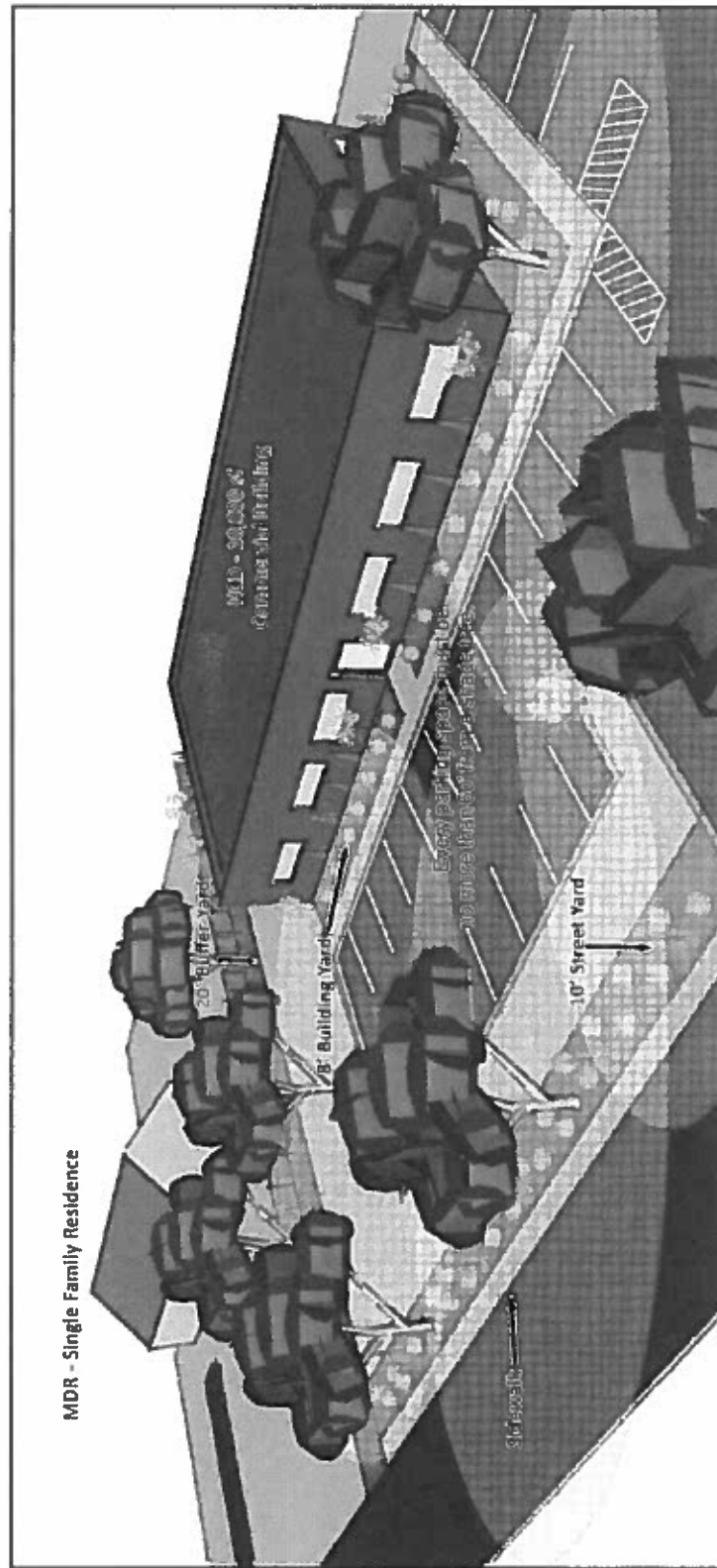
Vegetation Type	Number Required
Large Trees*	2 per 100 linear feet of property line
Shrubs	1 per 5 linear feet of property line

* Under overhead utility lines, two (2) small trees shall be used in lieu of each large tree required.

- C. Vegetation shall be selected from the plant list in Section 7.4.1. At least 25 percent of the required trees, and at least 75 percent of the required shrubs, shall be evergreen species locally adapted to the area. The use of existing vegetation to satisfy this requirement is encouraged. Supplemental planting may be required in addition to existing vegetation.

See Fig. 7.3 for example Street Yard.

FIG. 7.3 EXAMPLE SITE WITH ALL REQUIRED LANDSCAPING



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Section 7.4 Landscaping Installation and Maintenance

7.4.1 Plant List

The following plant list is not all-inclusive, and similar alternatives may be approved by the Administrator:

Large Trees						
50 feet or taller, suitable for areas with more than 200 square feet of total planting area; in a planting strip at least 7 feet wide; or place at least 6 feet from pavement or wall.						
Common/Scientific Name	Height & Width	Sun/ Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Ash, green Fraxinus pennsylvanica	60-70' h 45' w	FS	M	F	D	Native. Tolerates wet or dry sites, confined spaces. Large surface roots. Good cultivars. Zones 3-9
Beech, American Fagus grandifolia	50-75' h 40-80' w	PS/FS	L	S	D	Native. Needs ample room above and below ground. Acid soil. Fruit attracts wildlife, no litter. Zones 4-9
Blackgum Nyssa sylvatica	65-75' h 25-35' w	PS/FS	H	S	D	Native. Soil pH below 6 best, texture tolerant, drought tolerant, wet soil tolerant. Fruit attracts wildlife, some litter. Zones 4-9
Deodar Cedar Cedrus deodara	40-60' h 25-30' w	PS/FS	M	F	E	India. Drought tolerant, pH adaptable. Needs room for wide lower branches. Protect from strong winds. Zones 7-8
Cryptomeria, Japanese Cryptomeria japonica	50-60' h 15-20' w	FS	L	S	E	Japan. Prefers acid soil, texture adaptable. Drought tolerant, shelter from wind. Zones 6-8
Cypress, bald Taxodium distichum	60-80' h 25-35' w	FS/PS	M	F	D	Native. Drought & wet tolerant. 'Knees' form in wet areas. Tolerates compaction. Zones 4-11
Cypress, pond Taxodium ascendens	50-60' h 50-60' w	PS/FS	H	F	D	Native. Soil adaptable below 7.5. Knobby 'knees' form in moist areas. Attracts wildlife. No litter. Zones 5-9
Dawn redwood Metasequoia glyptostroboides	70-90' h 25-35' w	FS/PS	H	F	D	China. Avoid high pH soils & salt. Good for urban & moist areas. Zones 5-8
Ginkgo Ginkgo biloba	50-75' h 50-60' w	PS/FS	H	S	D	China. Soil texture, pH & drought tolerant once established. Fall color is bright yellow. Females have smelly fruit. Zones 4-8

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Large Trees (continued)						
Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Hickory, pignut <i>Carya glabra</i>	50-65' h 30-40' w	PS/FS	M	M	D	Native. Soil texture adaptable. Drought tolerant. Nuts attract wildlife. Zones 4-9
Hickory, shagbark <i>Carya ovata</i>	60-80' h 25-35' w	PS/FS	H	S	D	Native. Soil texture adaptable. Abundant nuts attract wildlife. Shaggy bark attractive. Zones 4-8
Katsura tree <i>Cercidiphyllum japonicum</i>	40-60' h 35-60' w	PS/FS	M	F	D	China. Soil adaptable, even moisture. Drought tolerant once established. Numerous shallow roots. Use mulch. Zones 4-8
Loblolly bay <i>Gordonia lasianthus</i>	50-60' h 10-15' w	S/PS	H	S	E	Native. Needs shade. Soil adaptable, moist. Showy white flowers. Shallow root system needs mulch & water during drought. Zones 7-9
Magnolia, Southern <i>Magnolia grandiflora</i> 'Claudia Wannamaker'	60-80' h 30-40' w	PS/FS	M	M	E	Native. Soil adaptable. Bark is thin, protect from mechanical injury. White showy blooms in spring & summer. Good cultivars. Zones 7-9
Maple, red <i>Acer rubrum</i>	60-75' h 25-35' w	PS/FS	H	F	D	Native. Prefers acidic soil, texture tolerant, wet tolerant. Bark is thin. Fruit attracts wildlife. Many cultivars. Zones 4-9
Maple, sugar <i>Acer saccharum</i>	50-80' h 35-50' w	S/FS	L	M	D	Native. Soil adaptable. Use in cooler portions of state. Roots need ample space. Shallow roots benefit from mulch. Zones 4-8
Oak, laurel/darlington <i>Quercus laurifolia</i>	60-70' h 50' w	PS/FS	H	F	SE	Native. Soil adaptable. Roots will heave sidewalks. Acorns attract wildlife, creates some litter. Zones 6-10
Oak, live <i>Quercus virginiana</i>	60-80' h 60-120' w	PS/FS	H	M	E	Native. Soil adaptable. Roots will eventually heave sidewalks. Good wind resistance. Some litter. Zones 8-10
Oak, shumard <i>Quercus shumardii</i>	60-80' h 40-50' w	FS	M	F	D	Native. Soil texture adaptable, acidic. Urban tolerant. Acorns attract wildlife. Some litter. Zones 5-9

CHAPTER 7: LANDSCAPING REQUIREMENTS

Large Trees (continued)						
Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Oak, southern red <i>Quercus falcata</i>	60-80' h 60-70' w	FS	M	M	D	Native. Acidic soil, all textures, urban tolerant. Fruit attracts wildlife, no significant litter. Zones 7-9
Oak, scarlet <i>Quercus coccinea</i>	60-75' h 45-60' w	FS	M	M	D	Native. Acidic soil, all textures. Needs ample root space. Nuts attract wildlife. Some litter. Zones 5-8
Oak, swamp chestnut <i>Quercus michauxii</i>	60-70' h 30-50' w	PS/FS	M	M	D	Native. Acidic soil, all textures, occasional wet. Leaf litter persistent, acorns for wildlife. Zones 6-9
Oak, white <i>Quercus alba</i>	60-100' h 60-80' w	PS/FS	H	M	D	Native. Acidic soil, all textures. Protect roots from disturbances. Nuts attract wildlife. Some litter. Zones 3-9
Oak, willow <i>Quercus phellos</i>	60-75' h 40-60' w	FS	M	F	D	Native. Acidic soil, all textures, occasional wet, drought, urban tolerant. Nuts attract wildlife. Some litter. Zones 5-9
Pine, loblolly <i>Pinus taeda</i>	50-80' h 30' w	FS	M	F	E	Native. Soil texture adaptable, acidic. Thick bark- resistant to fire. Needle drop prolific. Pinecones attract wildlife. Zones 6-9
Pine, longleaf <i>Pinus palustris</i>	60-80' h 30-40' w	FS	M	F	E	Native. Soil texture adaptable. Beautiful bark. Needle and cone drop prolific. Drought tolerant once established. Zones 7-10
Sassafras <i>Sassafras albidum</i>	30-60' h 25-40' w	PS/FS	M	M	D	Native. Acidic soils, wet. Showy yellow bloom in spring. Good fall color. Blue fruit, attracts wildlife. Smaller mature size on coast. Zone 4-9
Sycamore, American <i>Platanus occidentalis</i>	75-90' h 60-70' w	FS	L	F	D	Native. Soil pH and texture adaptable. Prefers moist soil. Roots may heave sidewalks. Showy bark. Zones 4-9

CHAPTER 7: LANDSCAPING REQUIREMENTS

Large Trees (continued)						
Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Tulip poplar Liriodendron tulipifera	80-120' h 25-40' w	FS	H	F	D	Native. Acidic soil, occasional wet. Avoid drought & salt. Showy greenish-yellow blooms in spring. Some leaf drop in high heat. Zones 4-9
Zelkova, Japanese Zelkova serrata	50-90' h 50-75' w	FS	H	M	D	Japan. Soil adaptable. Drought & urban tolerant once established. Cultivar 'Green Vase' elm-like. Zones 5-8

Medium Trees						
25 feet - 50 feet , suitable for spaces with 100 to 200 square feet of total planting space; in a planting strip at least 4-7 feet wide; or place at least 4 feet from pavement or wall.						
Common Name/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Crapemyrtle, Japanese Lagerstroemia fauriei	35-50' h 25-35' w	FS	H	M	D	Japan. Soil adaptable. Urban tolerant. White showy flowers. Beautiful bark. May be resistant to powdery mildew. Zones 6-9
Dogwood, flowering Cornus florida	20-30' h 20' w	PS	M	M	D	Native. Part shade. Drought sensitive, low salt tolerance, needs good drainage. White showy flowers. Horizontal branching pattern. Zones 5-9
Elm, lacebark Ulmus parvifolia 'Drake'	40-50' h 35-50' w	FS	H	F	D	Asia. Soil adaptable. Drought tolerant once established. Thin bark. Urban tolerant. Zones 5-9
Goldenrain tree Koelreuteria paniculata	30-40' h 30-40' w	FS/PS	M	M	D	China. Soil adaptable. Salt, drought, urban tolerant. Bright yellow flowers in spring. Zones 5-8
Holly, East Palatka Ilex x attenuata	30-45' h 10-15' w	FS	M	M	E	Florida natural hybrid. Urban & drought tolerant once established. Red berries attract wildlife. Zones 7-9
Holly, American Ilex opaca	40-50' h 15-25' w	FS	M	S	E	Native. Salt and drought tolerant once established. Red berries attract birds, no litter. Zones 5-9
Holly, Nellie R. Stevens Ilex x	20-30' h 10-15' w	FS	H	M	E	Hybrid. Soil texture tolerant. Needs male and female plants for berries. Drought tolerant. Showy red berries & deep green leaves. Zones 6-9

CHAPTER 7: LANDSCAPING REQUIREMENTS

Medium Trees						
Common Name/Scientific Name	Height & Width	Sun/ Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Holly, Savannah <i>Ilex x attenuata</i>	30-45' h 6-10' w	FS	M	M	E	Hybrid. Acidic soil, urban tolerant. Red berries attract birds, no litter. Zones 6-9
Holly, weeping yaupon <i>Ilex vomitoria</i>	20-30' h 6-12' w	FS	M	M	E	Native. Soil & pH adaptable. Thin bark. Flowers attract bees. Zones 7-10
Hophornbeam, American <i>Ostrya virginiana</i>	30-40' h 25-35' w	PS/FS	M	S	D	Native. All soils except wet. Salt sensitive, drought & urban tolerant. Small nutlets attract wildlife. Zones 3B-9
Hornbeam, American <i>Carpinus caroliniana</i>	20-40' h 20-30' w	PS	M	S	D	Native. Soil adaptable, occasionally wet, salt sensitive. Good climbing tree due to strong wood and low branches. Zones 3B-9
Hornbeam, European <i>Carpinus betulus</i>	30-40' h 15-20' w	PS	M	S	D	Europe. Soil adaptable. Urban tolerant. Fruit attracts birds, no litter problem. Good screen. Zones 5-7
Loquat <i>Eriobotrya japonica</i>	20-30' h 30-35' w	PS/FS	M	M	E	China. Southern range only. Texture tolerant. Well drained soil, afternoon shade. Orange or yellow fruit attracts wildlife, litter. Zones 8-10
Magnolia, sweetbay <i>Magnolia virginiana</i>	40-50' h 15-25' w	PS	M	M	D	Native. Acidic soil. Tolerates wetlands. Flood & drought tolerant. Showy, white, fragrant flowers. Zones 5-9
Magnolia, Southern <i>Magnolia grandiflora</i> 'Bracken's Brown Beauty'	30-50' h 15-30' w	FS	H	M	E	Native. Soil adaptable. White showy blooms in summer & early fall. Smaller leaves than species. Zones 6-9
Maple, hedge <i>Acer campestre</i>	30-35' h 30-35' w	PS/FS	H	S	D	Europe. Soil adaptable, no compacted soil. Drought tolerant in part shade. Urban tolerant. Good screen plant. Good fall color. Zones 5-8
Maple, trident <i>Acer buergerianum</i>	30-40' h 25' w	PS/FS	H	M	D	China. Acidic, well drained soil. Urban, salt & wind tolerant. Attractive bark. Zones 5-8
Oak, Chinese evergreen <i>Quercus myrsinifolia</i>	20-40' h 20-30' w	FS	H	S	E	China. Soil adaptable, all textures. Bark smooth, gray, beech-like. New foliage emerges purple-bronze color. Zones 7-9

CHAPTER 7: LANDSCAPING REQUIREMENTS

Medium Trees (continued)						
Common Name/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Oak, overcup <i>Quercus lyrata</i>	35-50' h 35-50' w	FS	H	M	D	Native. Soil adaptable, wet & drought tolerant once established. Urban tolerant. Acorns attract wildlife, significant litter. Zones 5-9
Palm, cabbage <i>Sabal palmetto</i>	40-50' h 10-12' w	PS/FS	H	S	E	Native. Soil tolerant, frond and fruit litter messy. Needs irrigation until established as all cut roots die back. Southern region only. Zones 8B-11
Palm, windmill <i>Trachycarpus fortunei</i>	20-40' h 6-10' w	PS/FS	M	S	E	China. Soil texture adaptable. Drought tolerant once established. Protect from wind. Southern range of state only. Zones 8A-10B
Persian parrotia <i>Parrotia persica</i>	20-40' h 20-40' w	PS/FS	H	S	D	Iran. Soil adaptable, not wet. Drought tolerant once established. Attractive bark, thin bark. Urban tolerant. Zones 5-8
Pistache, Chinese <i>Pistacia chinensis</i>	25-35' h 25-35' w	FS/PS	H	M	D	China. Soil texture, pH, drought, urban tolerant. Fruit causes some litter. Zones 6-9
Redbud, eastern <i>Cercis canadensis</i>	20-30' h 15-30' w	PS	M	F	D	Native. Light, rich, moist soil, texture adaptable. Showy purple blooms in spring. Cultivar 'Texas White' good. Short lived. Zones 4-9
Redcedar, eastern <i>Juniperus virginiana</i>	40-50' h 8-25' w	FS	H	F	E	Native. Soil pH and texture tolerant. Blue fruit attracts wildlife. Good wind break, urban tolerant. Zones 3-9
Silverbell, Carolina <i>Halesia carolina</i>	20-40' h 15-30' w	PS/FS	H	M	D	Native. Acidic soil. Drought sensitive in full sun, roots need room. Showy white blooms in spring. Zones 5-8
Snowbell, Japanese <i>Styrax japonicus</i>	20-30' h 15-25' w	PS/FS	H	M	D	Japan. Acidic loamy soil. Afternoon shade, protect from wind. Attractive exfoliating bark. White showy blooms in spring. Zones 6-8
Stewartia, tall <i>Stewartia monadelphica</i>	25-35' h 15-25' w	PS/FS	H	S	D	Japan. Acidic soils. Thin bark, attractive bark. White, camellia-like blooms in summer. Part shade best in 8B. Zones 6-8

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Medium Trees (continued)						
Common Name/Scientific Name	Height & Width	Sun/ Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Yellowwood, American Cladastris kentukea	30-50' h 40-50' w	PS/FS	H	M	D	Native. Needs pruning while young. White fragrant blooms. Tolerates urban conditions. Zones 4-8

Small Trees						
Less than 25 feet, useful under utility lines; areas with less than 100 square of total planting area; a planting strip with a width of at least 4 feet; or planted at least 2 feet from pavement or wall.						
Common Name/Scientific Name	Height & Width	Sun/ Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Chastetree, cutleaf Vitex negundo- 'Heterophylla'	10-15' h 10-15' w	PS/FS	M	F	D	Africa. Soil & pH adaptable. Avoid wet soil. Showy lavender blooms attract bees. Zones 6-8
Cherry, Okame Prunus x incamp 'Okame'	15-25' h 20' w	PS/FS	M	M	D	Hybrid. Soil texture and pH adaptable. Roots need room. Pink showy blooms. Fruit attracts birds. Zones 7-9
Dogwood, Japanese Cornus officinalis	20' h 25' w	PS/FS	M	S	D	Japan. Soil adaptable. salt sensitive. Showy blooms in spring. fruits in fall. Zones 5-8
Dogwood,kousa Cornus kousa	15-20' h 15-20' w	PS/FS	M	S	D	Japan. Soil adaptable. Part shade, needs water. Roots need room. Showy white blooms in spring. Fruit attracts birds. Zones 5-8
Dogwood, pagoda Cornus alternifolia	15-20' h 15-20' w	PS/FS	M	S	D	Native. Part shade. Soil adaptable, mulch needed. Creamy white blooms in spring. Fruit attracts birds. Zones 3-7
Fringetree Chionanthus virginicus	12-15' h 10-15' w	PS/FS	M	S	D	Native. Acidic soil. Thin bark easily damaged. Urban tolerant. Showy white blooms in spring. Fruit attracts birds. Zones 4-9
Fringetree, Chinese Chionanthus retusus	20' h 10-15' w	PS/FS	H	S	D	China. Acidic soil, occasionally wet. Shelter from wind. White showy blooms in spring. Fruit attracts wildlife. Zones 6-8
Holly, Foster's Ilex x attenuata 'Fosteri'	15-25' h 8-12' w	PS/FS	M	S	E	Hybrid. Acidic soil, occasionally wet. Drought tolerant. Red berries attract birds, no litter. Zones 6-9

CHAPTER 7: LANDSCAPING REQUIREMENTS

Small Trees (continued)						
Common Name/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous/ Evergreen	Remarks
Holly, yaupon <i>Ilex vomitoria</i>	15-20' h 15-20' w	S/FS	M	M	E	Native. Soil & pH greatly adaptable. Urban tolerant. Thin bark. Red berries attract wildlife. Zones 7-10
Maple, amur <i>Acer ginnala</i>	15-20' h 15-20' w	PS/FS	H	M	D	Japan. Soil adaptable. Drought tolerant once established. Showy white to yellow blooms in spring. Bright red fruit, some litter. Zones 3-8
Magnolia, star <i>Magnolia stellata</i>	15-20' h 10-15' w	PS/FS	M	S	D	Japan. Acidic rich soil, all textures. Not drought tolerant. White or pink showy blooms in spring. Zones 4-8
Magnolia, Southern <i>Magnolia grandiflora</i> 'Little Gem'	20-25' h 10-15' w	PS/FS	M	M	E	Native. Soil adaptable. Bark is thin, protect from mechanical injury. White showy blooms in summer and early fall. Zones 7-9
Palm, pindo <i>Butia capitata</i>	15-25' h 10-15' w	PS/FS	H	S	E	Brazil. Soil adaptable. Drought tolerant. Showy orange or yellow fruit attracts wildlife, significant litter. Southern range only. Zones 8B-11.
Redbud, Chinese <i>Cercis chinensis</i>	10-15' h 6-10' w	PS/FS	M	F	D	China. Light, rich, moist soil. Showy purple blooms in spring. Zones 6-9
Waxmyrtle <i>Myrica cerifera</i>	15-20' h 20-25' w	PS/FS	M	F	E	Native. Soil & pH adaptable. urban tolerant. Blue berries attract wildlife. Zones 8-11

KEY			
Sun/shade exposure:	Growth rate:	Pest resistance:	Type:
FS = Full sun	S = Slow (less than 1' per year)	H = High	D = Deciduous
PS = Part sun	M = Medium (1-2' per year)	M = Medium	E = Evergreen
S = Shade	F = Fast (more than 2' per year)	L = Low	SE = Semi Evergreen
The City of Walterboro is located in Zone 8.			

Source: Strother, Ellen A.V., Donald L. Ham, and Liz Gilland. South Carolina Urban Tree Species Guide. South Carolina Forestry Commission.

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Deciduous Shrubs	
Botanical Name	Common Name
<i>Alnus serrulata</i>	smooth alder
<i>Amelanchier arborea</i>	downy serviceberry, shadbush, Juneberry
<i>Amorpha fruticosa</i>	false indigo, Indigo bush
<i>Aronia melanocarpa</i>	black chokeberry
<i>Baccharis halimifolia</i>	sea myrtle, groundsel bush
<i>Callicarpa americana</i>	American beautyberry, French mulberry
<i>Calycanthus floridus</i>	Carolina allspice, sweet shrub
<i>Castanea pumila</i>	Chinquapin
<i>Ceanothus americanus</i>	New Jersey tea, red root
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Clethra alnifolia</i>	summer sweet
<i>Comptonia peregrina</i>	sweet fern
<i>Cornus alternifolia</i>	pogoda dogwood, alternate- leaved dogwood
<i>Cornus racemosa</i>	gray dogwood
<i>Corylus americana</i>	American hazelnut or filbert
<i>Corylus cornuta</i>	beaked hazelnut or filbert
<i>Diervilla sessilifolia</i>	southern bush honeysuckle
<i>Dirca palustris</i>	leatherwood, ropebark
<i>Erythrina herbacea</i>	coral bean
<i>Euonymus americana</i>	strawberry bush, brook euonymus, hearts-a-bustin'
<i>Euonymus atropurpurea</i>	wahoo, burning bush
<i>Forestiera acuminata</i>	swamp privet
<i>Fothergilla major</i>	witch alder
<i>Frangula caroliniana</i>	Carolina buckthorn
<i>Hydrangea arborescens</i>	wild hydrangea
<i>Hypericum hypericoides</i> ssp. <i>hypericoides</i>	St. Andrew's cross
<i>Hypericum prolificum</i>	shrubby St. John's wort
<i>Ilex verticillata</i>	winterberry, black alder
<i>Itea virginica</i>	Virginia willow, sweetspire, tassel-white
<i>Lindera benzoin</i>	spicebush
<i>Lycium carolinianum</i>	Christmas berry, matrimony vine
<i>Lyonia ligustrina</i>	male-berry, male-blueberry
<i>Physocarpus opulifolius</i>	ninebark
<i>Rhododendron arborescens</i>	smooth azalea
<i>Rhododendron atlanticum</i>	dwarf, or coastal azalea
<i>Rhododendron calendulaceum</i>	flame azalea
<i>Rhododendron canescens</i>	wild, piedmont, or sweet azalea
<i>Rhododendron periclymenoides</i>	pinxterbloom azalea
<i>Rhododendron viscosum</i>	swamp azalea
<i>Rhus aromatica</i>	fragrant sumac
<i>Rhus copallinum</i>	dwarf or winged sumac

CHAPTER 7: LANDSCAPING REQUIREMENTS

Deciduous Shrubs (continued)	
Botanical Name	Common Name
<i>Rhus glabra</i>	smooth sumac
<i>Rhus hirta</i>	staghorn sumac
<i>Rosa carolina</i>	Carolina rose
<i>Rosa setigera</i>	Illinois or prairie rose
<i>Rubus occidentalis</i>	black raspberry, thimbleberry
<i>Rubus odoratus</i>	thimbleberry
<i>Sambucus canadensis</i>	elderberry, common elder
<i>Sambucus racemosa</i> var. <i>pubens</i>	scarlet elderberry, red-berried elder
<i>Spiraea tomentosa</i>	steeplebush, hardhack
<i>Staphylea trifolia</i>	bladdernut
<i>Stewartia malacodendron</i>	silky camellia
<i>Styrax americanus</i>	American silverbells
<i>Symphoricarpos orbiculatus</i>	coralberry, Indian currant
<i>Vaccinium arboreum</i>	sparkleberry, farkleberry
<i>Vaccinium corymbosom</i>	highbush blueberry
<i>Viburnum acerifolium</i>	maple leaf viburnum
<i>Viburnum dentatum</i>	southern arrowwood
<i>Viburnum nudum</i>	possumhaw viburnum
<i>Viburnum nudum</i> var. <i>cassinoides</i>	wild raisin
<i>Viburnum prunifolium</i>	black haw, nanny berry
<i>Viburnum rufidulum</i>	southern or rusty black haw

Evergreen Shrubs	
Botanical Name	Common Name
<i>Epigaea repens</i>	trailing arbutus
<i>Gaultheria procumbens</i>	wintergreen, checkerberry
<i>Gaylussacia brachycera</i>	box huckleberry
<i>Gordonia lasianthus</i>	loblolly bay, gordonia
<i>Ilex glabra</i>	inkberry, bitter gallberry
<i>Ilex vomitoria</i>	yaupon
<i>Juniperus communis</i>	common juniper
<i>Kalmia angustifolia</i>	sheep laurel, lambkill kalmia
<i>Kalmia latifolia</i>	mountain laurel
<i>Leucothoe axillaris</i>	coast leucothoe
<i>Myrica cerifera</i>	wax myrtle, southern bayberry, candleberry
<i>Rhododendron carolinianum</i>	Carolina rhododendron
<i>Rhododendron catawbiense</i>	purple rhododendron, red laurel
<i>Rhododendron maximum</i>	rosebay, great laurel
<i>Serenoa repens</i>	saw palmetto

Source: Pittman, Albert. *South Carolina Native Plant Listings*. US Department of Transportation Federal Highway Administration. <http://www.fhwa.dot.gov/environment/rdsduse/sc.htm>

CHAPTER 7: LANDSCAPING REQUIREMENTS

7.4.2 Prohibited Plants

Plants that are listed on the *South Carolina Exotic Pest Plant Council Non-Native Plant Species List* are prohibited.

7.4.3 Plant Installation Standards

The following standards shall apply to all new plant material installed as part of a screen required under these regulations:

- A. Minimum tree caliper measured six (6) inches above ground on all large maturing trees shall be four (4) inches and the minimum height shall be eight (8) feet.
- B. No trees identified as large trees shall be planted under overhead utility lines or within five (5) feet of a utility easement. This does not include low-voltage insulated or covered lines of 240 volts or less or telephone or cablevision lines.
- C. All plant material installed shall be free from disease.
- D. Plant materials shall be planted in accordance with generally accepted and recommended planting and growing practices.
- E. All plant material shall be installed in a fashion that ensures the availability of sufficient soil and water to sustain healthy growth.
- F. All plant material shall be planted in a manner which is not intrusive to utilities or pavement.

7.4.4 Landscaping Maintenance

Plantings, fences, walls, or berms that are required landscaping shall be properly maintained. The owner of the property where landscaping is required shall be responsible for the maintenance of all landscaping materials. Such maintenance shall include all actions necessary to keep the landscaped area free of litter and debris; to keep plantings healthy; to keep plant growth from interfering with safe vehicular and pedestrian travel, or use of parking areas, or from creating nuisances to adjoining properties; and to keep walls, fences, and berms in good repair and neat appearance. Any vegetation that is part of a required landscaping area shall be replaced within one (1) year in the event that it dies. All landscaping materials shall be protected from damage by erosion, motor vehicles, or pedestrians which could reduce the effectiveness of the required landscaping.

7.4.5 Visibility at Intersections

Except as herein provided, on a corner lot in any district, no hedge, shrubbery, tree, natural growth, sign, fence, wall, or other obstruction shall be placed or maintained within a sight triangle as defined by this ordinance.

CHAPTER 7: LANDSCAPING REQUIREMENTS

Section 7.5 Fences and Walls

- A. In all zoning districts, a permit shall be required prior to the erection of a fence.
- B. Prior to the issuance of a permit for a fence within the Historic Preservation Overlay (HP-O), the property owner must obtain a Certificate of Appropriateness.
- C. The finished side of any fence primarily visible from the right-of-way shall face the right-of-way.
- D. Any fence shall be constructed in a durable fashion of brick, stone, other masonry materials, or wood, vinyl, wrought iron or other material specifically designed as fencing materials or any combination thereof which may be approved by the Administrator.
- E. Fences may be located up to the property line, but shall not be located in any right-of-way or sight-triangle.
- F. Entrance gateways to residential subdivisions, all agricultural uses, and the Resource Conservation District (RCD) are exempt from the following fence and wall standards. Except as otherwise noted in this Ordinance, fences or walls are permitted in the various districts subject to the following regulations:

	Residential Districts (SFR, MDR, HDR)		Non-residential Districts (CBD, GCD, HCD, IICD, ID)	
	Front Yards	Side & Rear Yards	Front Yards	Rear & Side Yards
Min. Height	2 feet	n/a	n/a	n/a
Max. Height²	4 feet	6 feet	8 feet	8 feet
Materials¹	• brick • panelized wire • stone • stucco • vinyl • wood • wrought iron	• brick • chain link • panelized wire • privacy screening • stucco • stone • vinyl • wood • wrought iron	• brick • panelized wire • stone • stucco • vinyl • wood • wrought iron	• brick • chain link³ • panelized wire • Stone • stucco • vinyl • wood • wrought iron

1: Materials may include a combination of the listed permitted materials for each fence type. Residential front yard fences shall not be opaque.

2: Unless a higher fence exists on a common property line of an adjacent lot, in which case the proposed fence can be no higher than that fence

3: Barbed wire on top of security fences is permitted for rear yard fences not visible from a street.

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Section 7.6 Screening Requirements

The screening requirements of this Section shall apply to the garbage containers, mechanical equipment, and outdoor storage for all new and expanding non-residential and multi-family development:

- A. Any permitted outdoor storage or utility structures shall be screened in the form of a berm, wall or fence and natural plantings as to provide an opaque screen for outdoor storage, waste containers, and utility structures. The screen shall exceed the height of the storage or equipment by a minimum of one (1) foot and shall not exceed the height limitations set forth in Section 7.5 for fences and walls and shall not interfere with the operation of utility equipment.
- B. Dumpsters and other waste collection containers shall not be located in the front yard of any structure.
- C. Ground-mounted mechanical equipment shall be located in the rear or side yard and screened from view of the street. Roof-mounted mechanical equipment shall be screened from view by a parapet wall or screen wall matching the primary building materials.
- D. Any fencing used to fulfill the requirements of this Section shall be supplemented with landscaping. Chain link fence with slats shall not be used to meet the requirement of this Section.
- E. All screens shall utilize building materials and design which are compatible with those used for the exterior of the principal building.



Solid Masonry Screen with Gates



Not fully screened

CHAPTER 7: LANDSCAPING REQUIREMENTS



**Mechanical Equipment Screened
with Landscaping**



Mechanical Equipment Not Screened