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BUFFERS, LANDSCAPING, AND LIGHTING

Section 8.1 Purpose

The buffering, screening, landscaping, and tree preservation requirements of this chapter establish standards to preserve and enhance the natural environment and aesthetics of the town; provide appropriate barriers and relief from traffic, noise, heat, glare, odor and the spread of dust; reduce the impacts of stormwater runoff and erosion; and encourage the preservation of native plant communities, interconnected natural open space, and ecosystems. Furthermore, the intent is to provide a visual screen between certain uses to minimize potential nuisances, reduce the visual impact of aspects of adjacent development, and provide an enhanced sense of privacy; and to establish procedures and standards for the administration and enforcement of these regulations.

Section 8.2 Applicability

All zoning districts and uses are subject to the requirements of this chapter. All new development or substantially modified existing development shall provide landscaping, screening, buffering, and preserve trees in accordance with the standards of this chapter. Where existing vegetation is insufficient to meet the prescribed requirements or additional new landscape material is used, such new landscaping shall consist of vegetation from the Tree Species List (Appendix D).

All new development and substantially modified development shall be required to provide a Landscaping Plan in accordance with the standards of this chapter. The minimum requirements of this chapter shall be installed and shall be maintained in perpetuity for all developments approved or substantially modified after the adoption date of this code. Construction standards for certain types of landscaping criteria shall be found in the Engineering Design and Construction Standards Manual.

Section 8.3 General Requirements

All buffers, landscaped areas, and tree preservation areas shall be free of structures except for ordinary projections. Improvements such as driveways, sidewalks, and greenways are allowed in buffers, landscaped areas, and tree preservation areas. Certain accessory structures are permitted to be placed within required open space areas as provided for by this chapter.

Pedestrian, bicycle, and other alternative transportation and recreation facilities shown on plans adopted by the town shall take precedent over the strict application of the provisions contained in this chapter.

Whenever any requirement of this Code results in a fraction of a unit, a fraction of a half or more will be rounded up to the next whole unit and a fraction of less than a half will be disregarded. When any requirement of these regulations results in a fraction of a dwelling unit, that fraction will be disregarded and the nearest lower whole number shall apply.

The Zoning Administrator may waive or modify the requirements of this chapter where other buffers or open space satisfy the requirements of this chapter or based on extenuating circumstances such as underground utility locations, overhead utility line location, mechanical equipment, or where strict application of the provisions would be impractical or serve no useful purpose.

Section 8.4 Street and Front, Side, and Rear Landscaping Yards

Trees and other plantings shall be provided within the public right-of-way and within required front, side, and rear setbacks in accordance with the following standards:

- A. **Within Right-of-Way:** One medium maturing tree, selected from the Tree Species List (Appendix D), shall be provided every 40 to 65 feet on center within the public street right-of-way in the designated planting strip and landscaped median adjacent to all new development in all zoning districts, where existing trees do not satisfy this requirement.
- B. **Front Yard Area in EC, CC, NC, TC Districts:** One medium to large maturing tree, selected from the Tree Species List (Appendix D), shall be provided within 25 feet of the back of sidewalk every 40 to 65 feet on center for developments that are setback at least 10 feet from the street right-of-way. Trees placed in the landscaped front yard should be spaced in a manner that is complementary to the placement of street trees provided within the public right-of-way. Other plantings such as shrubs may be used to enhance the aesthetics of the streetscape area within landscaped front yards to provide visual and physical separation between developments and the adjacent roadway.
- C. **Front, Side, Rear Yard Areas in Major Subdivisions, Cluster Developments, and for Developments Located within the National Register Historic District in the R-1, R-3, and R-4 Residential Districts:** One medium to large maturing tree shall be provided

within the required front yard. Two small, medium, or large maturing trees shall be provided within the required side or rear yards; one of which shall be of the medium to large maturing variety. Four shrubs shall be provided for each required yard tree and may be located anywhere on the parcel.

- D. For street sections that do not provide a designed planting strip or a landscaped front yard in the MS, TC, and NC zoning districts, one small to medium maturing tree shall be provided in a tree well located within the public sidewalk according to the following standards:
 - 1. The trees must be located every 40 to 65 feet on center along the public sidewalk.
 - 2. The street trees shall be selected from the Tree Species List (Appendix D).
- E. Built elements such as fences and walls may be used to enhance the character of the streetscape for developments that provide a landscape front yard. These elements shall conform to the design standards of Chapter 6 Site Design Standards.
- F. Streetscape plantings should remain consistent for a minimum of one block face utilizing the same or similar tree species and other plantings and built elements that are consistent with the aesthetics of the development and area of town.
- G. Properties located along the Corridor Overlay District (Waxhaw-Marvin Road and portions of NC 16) shall also meet landscaping requirements found in Section 4.3.1 of this code.

Section 8.5 Parking Lot Landscaping

Landscaping shall be provided for off street parking areas in order to reduce their visual impact to surrounding properties and provide shade in order to reduce their urban heat island effect. Small to medium maturing trees shall be used and selected from the Tree Species List (Appendix D); in accordance with the following standards:

- A. Trees and shrubs shall be placed within off street parking areas or within 20 feet of the perimeter of the parking lot. All parking spaces shall be within 60 feet of a qualifying tree, as measured from the tree trunk to the nearest portion of the parking space.
- B. Additionally, one tree and 10 shrubs shall be planted an average of every 50 feet, evenly distributed or clustered, along the perimeter of off street parking areas that do not abut a building or public street.
- C. Landscaping medians shall contain a minimum of 75 square feet of planting area per tree and be equal in size to a standard parking space (9'x18.5') for each tree.

Parking garages shall be excused from the Parking Lot Landscaping requirements contained in this section but shall comply with the provisions of this chapter pertaining to street and front yard landscaping, buffering, and screening.

Section 8.6 Residential Perimeter Tree Buffer

Developments containing a total of 25 or more residential units in all phases in the R-1, R-3, and R-4 districts shall provide a 25 foot perimeter landscape buffer in accordance with the following standards:

- A. The 25 foot landscape buffer shall be placed along the exterior perimeter of the entire development including those that front existing public streets.
- B. The landscape buffer shall, at a minimum, consist of trees placed every 20 to 30 feet on center and 10 shrubs per tree evenly spaced or clustered throughout the buffer.
- C. Landscaped berms may be used along public street frontages to provide additional screening to the standards in this section.
- D. Existing vegetation may be used to fulfill the buffer requirements and existing trees are encouraged to be preserved within the perimeter buffer area.
- E. The landscape buffer shall be held in common ownership outside of deeded lots unless a homeowners' association does not exist for the development. In such cases, the buffer may be placed on individual deeded lots but shall be placed in a permanent conservation easement as described in Section 8.12.

Section 8.7 Buffering of Non-Residential Uses

Landscape buffers shall be provided between certain zoning districts in order to reduce the potential disturbances that arise from differing land uses and the activities that occur in adjoining zoning districts. All trees provided in required buffer areas shall be selected from the Planting Species List (Appendix D) and all shrubs shall be aesthetically compatible with the tree species provided. Buffer areas shall remain undisturbed after they are installed and shall be maintained to retain their functionality and aesthetic appeal. Buildings or structures other than ordinary projections shall not be placed within required buffers.

Buffer areas may be contained within required building setbacks to the extent possible. In instances where the required buffer width exceeds that of the required setback distance, the buffer requirement shall be satisfied by the minimum setback requirement.

Existing vegetation may be used to fulfill the buffer requirements and existing trees are encouraged to be preserved within buffer areas. Whenever possible, buffer areas should

BUFFER TYPE BY ABUTTING DISTRICT

DISTRICTS		R-1	R-3	R-4	NC	MS	TC	CC	EC
DISTRICT IN WHICH BUFFERS ARE REQUIRED	MS	*	*	*	*	*	*	*	*
	NC	A	A	*	*	*	*	*	*
	TC	B	B	A	*	*	*	*	*
	CC	C	C	B	B	*	*	*	A
	EC	C	C	C	C	*	A	A	*

* Indicates no buffer required.

Section 8.7.1 Class A Buffer

The Class A buffer is the least restrictive buffer category and is intended for use between zoning districts that have only a minor possibility of incompatibility and slight disturbances. A Class A buffer shall, at a minimum, consist of the following:

- A. An opaque fence or wall that is a minimum of 6 feet in height along the entire length of the boundary between two applicable adjoining zoning districts; or
- B. A landscaped area a minimum of 10 feet in width consisting of densely planted trees a minimum of 6 feet in height at maturity and shrubs along the entire length of the boundary between two applicable adjoining zoning districts.
 - 1. Buffer trees shall be planted at a minimum interval of 20 to 30 feet on center.
 - 2. Shrubs shall be provided at a minimum of 3 shrubs per tree evenly distributed or clustered within the buffer; or

Section 8.7.2 Class B Buffer

The Class B buffer is the medium intensity buffer category and is intended for use between zoning districts that may have moderate levels of incompatibility leading to disturbances to one or both abutting land uses. A Class B buffer shall, at a minimum, consist of the following:

- A. An opaque fence or wall a minimum of 6 feet in height and a 10 foot landscaped area or berm along the entire length of the boundary between two applicable adjoining zoning districts.
 - 1. Buffer trees shall be planted at a minimum interval of 40 to 65 feet on center
 - 2. Shrubs shall be provided at a minimum of 7 shrubs per tree, evenly distributed or clustered within the buffer; or
- B. A landscaped area a minimum of 20 feet in width consisting of densely planted trees

a minimum of 6 feet in height at maturity and shrubs along the entire length of the boundary between two applicable adjoining zoning districts.

1. Buffer trees shall be planted at a minimum interval of 20 to 30 feet on center.
2. Shrubs shall be provided at a minimum of 7 shrubs per tree, evenly distributed or clustered within the buffer.

Section 8.7.3 Class C Buffer

The Class C buffer is the most intense buffer category and is intended for use between two adjacent zoning districts that are generally regarded as incompatible. A Class C buffer shall, at a minimum, consist of the following:

- A. An opaque fence or wall a minimum of 6 feet in height and a 30 foot landscaped area along the entire length of the boundary between two applicable adjoining zoning districts.
 1. Buffer trees shall be planted at a minimum interval of 20 to 30 feet on center
 2. Shrubs shall be provided at a rate of 9 shrubs per tree and evenly distributed or clustered within the buffer; or
- B. A landscaped area or berm a minimum of 40 feet in width consisting of densely planted trees a minimum of 6 feet in height at maturity and shrubs along the entire length of the boundary between two applicable adjoining zoning districts.
 1. Buffer trees shall be planted at a minimum interval of 15 to 25 feet on center.
 2. Shrubs shall be provided at a rate of 11 per tree and evenly distributed or clustered along the length and width of the buffer.

Section 8.8 Screening

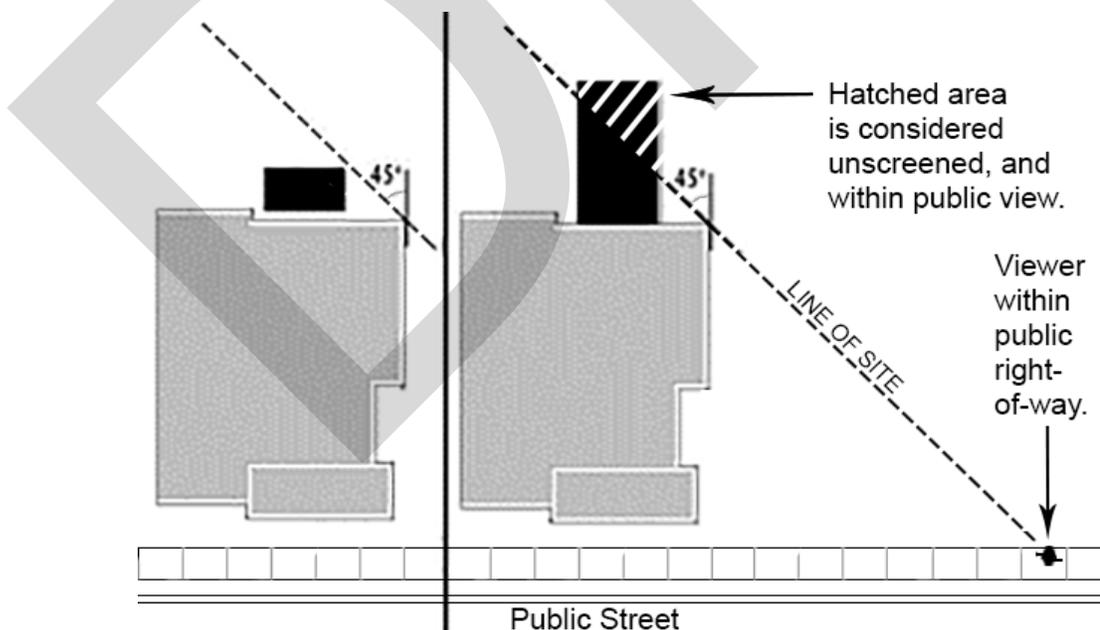
In order to enhance the aesthetic appeal of the town and reduce visual disturbances to adjoining public rights-of-way, public spaces, and neighboring properties, certain site elements shall be screened from public view and from adjoining private property. The elements that must be screened from view offsite include, but are not limited to, the following:

- A. Dumpsters and solid waste handling areas
- B. Service entrances and loading docks
- C. Unenclosed storage areas
- D. Mechanical equipment, utility structures, and security fencing
- E. Off-street parking areas
- F. Flood and security lighting

Section 8.8.1 Screening Standards

Screening shall be provided for each of the above site elements in accordance with the following standards:

- A. All dumpsters, solid waste handling facilities, service entrances, loading docks, and unenclosed storage areas shall be completely screened by an opaque fence or wall or dense evergreen planting that will completely conceal the area from view at maturity. A device is considered out of view of the public street if it is within the 45 degree angles projected from the building edges (see diagram).



- B. Mechanical equipment, utility structures, and security fencing shall be screened from public view and view from neighboring properties to the extent possible while still allowing for access to such devices for regular service. Screening may be accomplished by an opaque fence or wall or with evergreen plantings that that will grow to fully conceal the device at maturity.
- C. Off-street parking areas visible from public right-of-ways shall be screened by a fence, wall, or evergreen plantings or a combination thereof, a minimum of 3 feet in height that effectively block the illumination of automobile headlights onto the public right-of-way. Such screens must be located outside of the public rights-of-way and shall not interfere with sight triangles.
- D. Screening of additional site features not specifically mentioned in this subsection, waivers to required screening, and additional screening methods such as berms, increased buffer widths, landscaping and tree preservations areas, etc. shall be at the discretion of the Zoning Administrator.

Section 8.9 Open Space

Open space shall be provided in order to preserve natural habitats for plants and wildlife, contribute to the preservation of tree canopy, provide recreation space, and reduce the adverse impacts of development on the town. The types and rate of open space shall be provided in accordance with the following standards:

- A. Developments five acres or greater in the CC and EC districts, shall dedicate a minimum of 10 percent of the interior site area as tree preservation area or publicly accessible recreation space.
- B. Developments two acres or greater in the NC, MS, and TC districts shall dedicate a minimum of two percent of the interior site area as publicly accessible recreation space.
- C. Developments containing a total of 25 or more residential units in all phases in the R-1, R-3, and R-4 districts shall dedicate a minimum of 10 percent of the interior site area as tree preservation area.
 - 1. Tree preservation areas shall meet the standards of Section 8.10.
 - 2. Publicly accessible open space shall be considered in lieu of tree preservation.
 - 3. This standard does not apply to developments zoned R-3 or R-4 within the downtown economic zone area depicted on the Town's adopted Future Land Use Plan.
- D. Developments can dedicate 20 percent or more area to open space to qualify for the Cluster Development requirements found in Section 5.8 of this code.

- E. Publicly accessible recreation space may take the form of trails, parks, plazas, playgrounds, or community gardens. Such recreation space should be a focal point of the development and be centrally located so as to serve residents in the area of the development and the general public.
 - 1. The shape and dimensions of the land used for recreation space shall be deemed usable, with moderate topography and shall not be located in environmentally sensitive areas such as FEMA flood areas or wetlands or within utility right-of-ways or easements.
 - 2. Amenities shall be provided for active and passive recreation space such as seating, trash receptacles, water fountains, playgrounds, sports fields/courts, etc. in order to be deemed publicly accessible recreation space.
- F. All open space shall conform to the ownership and maintenance requirements of Section 8.12.
- G. Payment in-lieu of required open space may be made at the discretion of the Waxhaw Board of Commissioners in cases where the application of the open space requirements would not have a significant public benefit due to the location of the development site or unique site conditions.
 - 1. Trails designated in adopted town plans shall not be eligible for payment in-lieu and shall be installed during the development of the site consistent with the adopted town plans.

Section 8.10 Tree Preservation

Tree canopy shall be preserved in order to stabilize soil, control water pollution by preventing soil erosion and reducing flooding, reduce air pollution, mitigate the urban heat island effect, reduce noise pollution, provide natural habitat for wildlife, and contribute to the unique aesthetic value of the town. The amount of tree canopy on a proposed development's site shall be calculated prior to commencement of land disturbing activities. Tree preservation shall be provided according to the following standards.

- A. Development sites in the CC, EC, R-1, R-3, and R-4 districts that are calculated to be covered by 40 percent or more tree canopy area prior to development shall preserve a minimum of 10 percent of their Interior Site Area as a contiguous tree preservation area.
- B. The baseline canopy measurements on a proposed development site shall be provided by the property owner or applicant and submitted as part of a landscape plan. The percent canopy cover may be calculated using the latest available aerial photographs and verified, if necessary, by ground measurement.

- C. Areas that are designated as existing rights-of-way, easements or other utility facilities and existing ponds, lakes, or streams shall be subtracted from the total property area before the tree preservation requirements are calculated.
- D. If root disturbance or construction activities occur within the drip line of any tree designated as protected, only the area that is not affected by construction activities shall be included in the calculated tree preservation areas.
- E. Tree preservation areas shall be no less than 2,500 square feet in area and no less than 10 feet in width and contain not less than one tree. Where existing trees are insufficient to meet this standard, new trees shall be planted in order to satisfy this minimum requirement.
- F. Tree preservation areas shall not be located on any deeded lot.
- G. Portions of development sites that are designated as tree preservation areas shall be protected during construction and shall remain undisturbed in perpetuity. The property owner or applicant shall be responsible for the erection of any and all barriers necessary to protect any existing or installed trees from damage both during and after construction. These tree protection zones shall be clearly labeled on development plans and subject to inspection by town officials.
- H. Where removal of existing trees is approved within tree preservation areas, new trees shall be installed in the general vicinity of the trees removed. The replacement trees shall be selected from the Planting Species List (Appendix D) and shall cover the same or greater canopy area at time of maturity.
 - 1. A payment in lieu of tree replacement may be allowed, subject to approval by the Zoning Administrator in cases where site area is insufficient or it is otherwise impractical to replant trees on site.
 - 2. The payment shall be based on the total replacement cost of the trees. The applicant is responsible for providing price quotes and such quotes shall be certified by a North Carolina registered forester, registered Landscape Architect, or an ISA certified arborist.

Section 8.11 Heritage and Specimen Trees

Trees that are 36” or larger as measured by their diameter at breast height (DBH) shall be considered heritage or specimen trees due to their extraordinary size, aesthetic and historic value to the town. These trees are highly encouraged to be preserved according to the following standards:

- A. Heritage or specimen trees located in the NC, MS, TC, and CC districts should be preserved within 25 feet of public street rights-of-way and on publically owned or maintained property.
- B. The Zoning Administrator shall reserve the ability to waive or modify setback and other site dimensional and development standards in order to accommodate the preservation of such trees.
- C. An administrative permit issued in accordance with Chapter 3 shall be required prior to the removal of heritage or specimen trees.

Section 8.12 Maintenance and Ownership

Buffers and Open Space may be held in common ownership, in a permanent conversation easement, dedicated to the Town of Waxhaw, or to a regional conservation organization according to the following standards:

- A. Buffers and Open Space shall be held in common ownership outside of deeded lots by a homeowners association (HOA) or other property management association.
- B. Buffers and Open Space may be placed in permanent conversation easements as an alternative to common ownership.
- C. Buffers and Open Space may be dedicated to the Town of Waxhaw if they are found, by the Waxhaw Board of Commissioners, to have qualities that are valuable to the town as a whole and in the public interest.

It shall be the responsibility of the property owner to maintain buffers, open space, street and yard landscaping, screening, etc. in good condition. All site elements described in this chapter shall be maintained in perpetuity.

Section 8.13 Planting Species List

A list of approved trees and shrubs for planting is provided to increase the likelihood of survival and to reduce maintenance requirements. All trees utilized should be generally adapted to the normal climatic and environmental conditions expected in Waxhaw area. The list is not intended to be a comprehensive survey, but it will serve as a guide to plant selection as part of a landscape plan.

See **Appendix A** for the Planting Species List.

Section 8.14 Lighting

- A. It is the purpose and intent of this Exterior Lighting Section to accomplish the following:
 - 1. To encourage the use of lighting design practices and systems that will:
 - 2. Minimize direct illumination, light trespass, and light pollution
- B. Conserve energy and resources while maintaining nighttime safety, security and productivity
- C. To establish clear and comprehensive outdoor lighting standards with an emphasis on reducing glare and light trespass by requiring in most circumstances full cut-off light fixtures.
- D. To allow for outdoor lighting that is appropriate for the task and to establish light fixture height, wattage, distribution and illumination limits that will help prevent light trespass to adjacent properties.

Section 8.14.1 Exemptions

The following lighting is exempt from the requirements of this Section:

- A. Emergency lighting: Lighting required for public safety in the reasonable determination of public safety officials with authority.
- B. Decorative lighting: Low-wattage fixtures used for decoration, such as for the holidays, special events, and annual events, or temporary or permanent tubing fixtures which follow architectural features on buildings.
- C. Individual residential lighting that is not reviewed as part of a plan.
- D. DOT lighting: Department of Transportation highway safety and signage luminaires, which must comply with federal standards.
- E. Municipal lighting installed for the purpose of illuminating streets, sidewalks, and multi-modal pathways.

Section 8.14.2 Lighting Plan Required

A lighting plan is required for site plan approval. Any changes to the lighting plan must be approved by Zoning Administrator through a site and/or subdivision plan revision. The lighting plan shall be in accordance with IESNA standards for uniformity and show all maximum/minimum and average/minimum light levels.

The Zoning Administrator can waive this requirement for small projects on less than one acre if lighting standards and locations are specified on site plan.

Section 8.14.3 Lighting Standards

- A. The maximum mounted fixture height (grade to top of fixture) for all ground mounted or building mounted lighting fixtures, except those used for sporting facilities, shall be as follows:
 - 1. Non-residential and mixed-use property – 32 feet
 - 2. Residential property (single or multi-family) – 20 feet
 - 3. Pedestrian pathways or sidewalks separate from road rights-of-way – 16 feet
- B. All lighting fixtures rated one hundred fifty (150) watts (incandescent lamp or appropriate lumen equivalent) or less may be used without restriction to light distribution (non-cutoff classification) except when the luminaire creates direct glare perceptible to persons on a public right of way, or into the window openings of a residential dwelling unit. Care should be taken to minimize light trespass across property lines. Internal louvers or “glare shields” should be provided where the emitted light becomes a hindrance. House side shields may also be effective in reducing light trespass.
- C. All lighting fixtures rated between one hundred seventy five (175) watts and four hundred (400) watts (incandescent lamp or appropriate lumen equivalent) shall be rated as a “full cutoff” type when placed in the aiming position for which they are designed.



- D. All lighting fixtures rated above four hundred (400) watts (incandescent lamp or appropriate lumen equivalent) shall be listed as a full cutoff distribution only, and shall not emit any light above the horizontal plane of the fixture when placed in the aiming position for which they are designed. With exception of sporting facilities, the light source should not be visible from adjacent properties or the public street right-of-way.
- E. All building wall mounted lighting fixtures, or wall packs, shall be of the full cutoff type.
- F. All lighting fixtures illuminating building facades, steeples, trees, billboards, signs, flags, etc. (vertical surfaces lighted from the bottom up) shall not exceed one hundred fifty (150) watts (incandescent lamp or appropriate lumen equivalent), with the exception of Department of Transportation highway signage luminaires, which must comply with federal DOT standards. Lighting fixtures shall be selected, located, aimed and shielded so that direct illumination is focused exclusively on the item being illuminated, and away from adjacent properties and the public street right-of-way. Only US, State, or local Government flags may be lit with uplight.
- G. All outdoor lighting fixtures shall be located a minimum of ten feet (10') from a property or right-of-way line, and should be kept out of and at least two feet (2') away from any required perimeter buffer and tree save area.
- H. The layout of outdoor lighting fixtures shall be designed so that the poles do not interfere with other elements of the approved site plan such as trees, landscaping or parking. In general, poles shall be kept at least twenty feet (20') away from the trunk of any large maturing tree and at least ten feet (10') away from any small maturing tree.
- I. All floodlights shall include top and side shielding, and be aimed at least 45 degrees below the horizontal.
- J. To eliminate unneeded lighting, exterior lighting systems are encouraged to include automatic timers, dimmers, sensors, or similar controls that will turn off lights during daylight hours and when the site is not occupied or open for business.
- K. All fixtures and lamps shall be maintained in good working order, and replacement lamps and fixtures shall match approved plans. Landscaping shall be maintained in a manner that does not obstruct security lighting while not damaging or removing required landscape materials.

Section 8.14.4 Lighting Standards for Specific Uses

- A. Gas and Service Station Canopies - All lighting fixtures mounted on the underside of canopies must be full-cutoff classified, being either completely recessed/flush in the canopy, or having solid sides on a surface mounted fixture (canopy edges do not qualify as shielding). The light source shall be metal halide, ceramic metal halide or LED. Lighting levels under the canopy shall be no greater than thirty (30) footcandles. Areas outside the pump island canopy shall be illuminated as to provide proper safety

to customers, but shall be limited and not exceed twenty (20) footcandles.

- B. Motor Vehicle Dealership Standards - All lighting within a dealership display area shall be automatically reduced in light level by twenty five percent (25%) after 11:00 PM or within one (1) hour after close of daily business, whichever is earlier, and shall not return to full intensity before 8:00 AM. Outdoor areas where nighttime motor vehicle sales activity takes place and where accurate color perception of the vehicles by customers is required are allowed specific lighting level provisions. The display areas for new and used vehicles available for sale which are accessible to the general public during business operating hours shall not exceed fifty (50) foot candles. Other areas of the dealership property, such as inventory storage or repair vehicle storage, which are not intended for vehicle display, shall be designed to not exceed twenty (20) foot candles, although some portions within the site may slightly exceed this limit due to close proximity to a display area.
- C. Architectural Accent Lighting - Lighting fixtures used to accent architectural features, materials, colors, style of buildings, landscaping or art shall be located, aimed and shielded so that light is directed only on those features. Such fixtures shall be aimed or shielded to minimize light spill from the source in conformance with the luminaire standards. Accent lighting shall not generate excessive light levels, cause glare, or direct light beyond the façade onto neighboring properties, streets or night sky.
- D. Outdoor Sporting Events and Performances - The mounting height of outdoor sports field and outdoor performance area lighting fixtures shall not exceed eighty feet (80') from finished grade. All outdoor sports field and outdoor performance area lighting fixtures shall be equipped with the manufacturer's maximum glare control package (louvers, shields, visors or similar devices). The fixtures must be aimed so that their beams are directed and fall within the primary playing field or performance area. Other on-site improvements, such as parking lots and concession or restroom facilities, should not rely on lighting from the playing fields or performance area, but shall have separate lighting designed not to exceed twenty (20) foot candles initial lighting levels when combined with any spill light from the fields, and not create any areas of public access and use which are void of a minimum of 0.5 FC maintained while the facility is open to the public.

The hours of operation for the sports field lighting system for any game or event shall not exceed 8:00AM to 11:00PM. An exception to this time limit may be granted for play which has been weather delayed, or when a tournament or production is scheduled in advance with a final game or program to occur beyond 11:00 PM. The facility's property owner and management/production authority for the tournament or event are jointly responsible for providing notice of potential time extension to the Town Manager and adjacent property owners/occupants.

Lighting for playing fields or performance areas shall only be turned on when activity is scheduled and occurring. When scheduled activities are completed prior to 11:00 PM, the field or performance area lights shall be turned off (when egress lighting is separate) or reduced in light level by at least fifty percent (50%) within one (1) hour after

conclusion of play or other activity. When there are no scheduled activities at a sports field or performance area, then the lighting of them shall not be turned on. The security and egress illumination lighting systems may remain turned on for any amount of time deemed necessary to remove people safely.

Light levels for sports field illumination shall comply with, but not exceed IESNA standards. Where new sporting facility lighting is installed adjacent to an existing residential property, the intent shall be made for all installations to limit property line light levels to a maximum horizontal level of three (3) foot candles initial, and a maximum vertical level of one and one-half (1.5) foot candles at the property line of any developed residential parcel. When not installed adjacent to a residential property, light levels at the property line shall not exceed a maximum horizontal level of four (4) foot candles initial and a maximum vertical level of two (2) foot candles at the property line of any developed parcel or right-of-way. All possible means of shielding must be applied if this level has not been met. Owner must prove the intent has been made to meet these goals and Zoning Administrator shall make the determination on compliance.

Additional landscape screening may be necessary at select locations in order to reduce spill light on adjacent property. The lighting plan shall include a notation that the owner shall be responsible for providing additional landscaping or other visual screening along the property line which are in excess of intended limits. This additional screening shall be approved as an amended landscape plan prior to installation.