



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

DRAFT DATE – 2.19.2020

Table of Contents

ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

6.1	PARKING STANDARDS.....	6-2
6.2	LANDSCAPING, BUFFERING & SCREENING REQUIREMENTS.....	6-10
6.3	LIGHTING	6-18
6.4	FENCES.....	6-20



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

ARTICLE 6 – General Development Standards

6.1 PARKING STANDARDS (6-2)

A. PURPOSE AND INTENT

The purpose of this section is to ensure provision of off-street parking and loading facilities in proportion to the generalized parking, loading, and transportation demand of the different uses allowed by this Ordinance. The standards in this article are intended to provide for adequate off-street parking while allowing the flexibility needed to accommodate alternative solutions.

B. APPLICABILITY

These off-street parking and loading standards shall apply to all development in the County.

C. GENERAL REQUIREMENTS

1. Parking, Stacking and Loading Space Required

When any building or structure is erected, modified, enlarged or increased in capacity, or any open use is established, modified or enlarged, the requirements of this Section shall be met. For enlargements, modifications, or increase in capacity, the requirements of this Section shall apply only to such enlargements, modifications or increases in capacity.

2. Required Number

The minimum number of required off-street parking, stacking and loading spaces is indicated in the table below. In cases of mixed occupancy, the minimum number of off-street parking, stacking and loading spaces shall be the cumulative total of individual use requirements unless otherwise specified.

3. Handicapped Spaces

Spaces for the physically handicapped shall be provided as required by the North Carolina Building Code, and other applicable state and federal regulations governing van accessibility.

4. Reduction of Minimum Requirements

Unless there is a change in use requiring fewer spaces, the number of spaces shall not be reduced below the minimum requirements of this Ordinance except as provided for in Section 6.3.E - Parking Credits.

5. Maintenance

All off-street parking, loading, and circulation areas shall be maintained in good repair and in safe condition at all times so as not to constitute a hazard to public safety or a visual or aesthetic nuisance to surrounding land.

6. Access

All parking, stacking and loading facilities shall have vehicular access to a public street.

7. Use for No Other Purpose

Land used to provide required parking, stacking, and loading shall not be used for any other purposes, except for temporary events. If such land is devoted to any other purpose, the Certificate of Occupancy of the affected principal use shall immediately become void.

D. MAXIMUM NUMBER OF SPACES PERMITTED

- a. In general, commercial and industrial uses shall not exceed one hundred twenty-five (125%) percent of the minimum number of parking spaces required in Table 6-1-1.
- b. If a commercial or industrial use exceeds one hundred twenty-five (125%) percent of the minimum number of parking spaces required in Table 6-1-1, but no more than one



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

hundred seventy-five (175%) percent approval of an alternative parking plan by the Administrator shall be required.

- c. If a commercial or industrial use exceeds one hundred seventy-five (175%) percent of the minimum number of parking spaces required in Table 6-1-1, then an alternative parking plan must be approved by the Technical Review Committee.

TABLE 6-1-1: PARKING REQUIREMENTS

USE CATEGORY/SPECIFIC TYPE	MINIMUM REQUIRED AUTO SPACE
AGRICULTURAL/ANIMAL SERVICES:	
All	No Requirements
HOUSEHOLD LIVING:	
Single Family & Two Family Detached Dwelling	1.5 per unit
Townhouse Dwelling and Multi-Family	1.8 per unit within 200 ft. of unit plus 0.25 spaces for visitor parking
Accessory Dwelling	1 per unit
Live/Work	1 per 500 sf
Cluster Mailbox Unit	2 spaces per location, one space must meet ADA accessibility requirements
Other	1 per unit
GROUP LIVING/SOCIAL SERVICES:	1 per 2 resident rooms
RECREATION & ENTERTAINMENT:	
Adult Use	1 per 200 sf
Theater	1 per 1,000 sf of seating area
Indoor Recreation	1 per 300 sf
Other	See Subsection N - Uses with Variable Parking Demand Characteristics
CIVIC, EDUCATIONAL & INSTITUTIONAL:	
Place of Worship	1 per every 6 seats in worship area
Schools	1 per 8 seats in the main assembly hall
Daycare Centers (not in home)	1 per classroom
Other	1 per 400 sf
BUSINESS, PROFESSIONAL & PERSONAL SERVICES:	
Medical Office	1 per examination table
Studio, Artist & Recording	1 per 400 sf
Other	1 per 600 sf
LODGING:	1 per room
RETAIL TRADE:	1 per 400 sf
FOOD SERVICES:	1 per 200 sf
Restaurants	
FUNERAL & INTERMENT SERVICES	
Funeral Home or Crematorium	1 per 4 seats in main assembly room
Cemetery or Mausoleum	See Subsection N - Uses with Variable Parking Demand Characteristics



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

TRANSPORTATION, WAREHOUSING & WHOLESALE TRADE:	
Wholesale Trades (Heavy & Light)	1 per 1,000 sf
Car Wash	1 per 500 sf
Automobile Repair Services (Major & Minor)	1 per 300 sf
All other transportation, warehousing & wholesale trade uses	1 per 2,500 sf
UTILITIES & COMMUNICATIONS:	
Utilities, Major	1 per 1,500 sf
All other utilities & communications uses	See Subsection N - Uses with Variable Parking Demand Characteristics
WASTE-RELATED USES:	1 per 2,500 sf
GENERAL INDUSTRIAL:	
Warehouse (General Storage Enclosed)	1 per 2,500 sf
Laundry or Dry Cleaning Plant	1 per 500 sf
Self-Storage	1 per 1,500 sf
MANUFACTURING:	
All	1 per 1,000 sf
MINING USES:	
All	See Subsection N - Uses with Variable Parking Demand Characteristics
AIRPORT:	
All	See Subsection N - Uses with Variable Parking Demand Characteristics
SPECIAL EVENTS:	
All	See Subsection N - Uses with Variable Parking Demand Characteristics

E. PARKING CREDITS

1. For office or manufacturing uses that require forty (40) or more spaces, total required parking may be reduced by one (1) space for every carpool space provided, up to a maximum of twenty (20%) percent of the total required parking. Certified carpool spaces must be clearly marked and must be located closest to the building entrance, but not closer than any required handicapped spaces.
2. For every four (4) bicycle parking spaces provided, the total parking requirement may be reduced by one (1) space, up to a maximum of five (5%) percent of the total required parking. Bicycle parking racks shall be located close to the building entrance, and shall be separated from vehicle parking areas to minimize motor vehicle damage to bicycles. Bicycle racks shall be securely anchored to the supporting surface, and shall be at least three (3) feet in height and able to support a locked bicycle in an upright position.
3. For all uses within five hundred (500) feet of a fixed-route transit stop, total required parking may be reduced by five (5%) percent.
4. A combination of parking credits may be used, but may not exceed a total reduction in required parking of twenty (20%) percent.

F. UNLISTED USES

For any use not specifically listed in this Article, the parking, stacking and loading requirements shall be those of the most similar use.

G. PARKING REQUIREMENTS FOR CHANGE IN USES

If a change in use causes an increase in the required number of off-street parking, stacking or loading spaces, such additional spaces shall be provided in accordance with the requirements



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

of this Ordinance; except that if the change in use would require an increase of less than five (5%) percent in the required number of parking spaces or fewer than five (5) spaces, no additional off-street parking shall be required.

H. DESIGN STANDARDS

1. Design

Parking facilities shall be designed and constructed to:

- a. Allow unobstructed movement into and out of each parking space (without interfering with fixed objects or vehicles.)
- b. Minimize delay and interference with traffic on public streets and access drives.
- c. Maximize sight distances from parking lot exits and access drives.
- d. All off-street parking spaces in parking lots shall have access from parking lot driveways and not directly from streets.

5. Dimensional Requirements

Parking facilities shall be designed and constructed to meet minimum standards found in Table 6-1-2.

6. Improvements

a. Paving

- (1) Required parking spaces, access drives, and loading areas shall be paved and maintained with concrete, asphalt, or similar hardened dustless materials (not gravel) of sufficient thickness and consistency to support anticipated traffic volumes and weights.
- (2) Access drives shall be paved and maintained from the curb line to a point at least ten (10) feet beyond the public right-of-way line for all parking and loading facilities, whether paved or unpaved.
- (3) Paving shall not be required for:
 - (a) Parking facilities used on an irregular basis for churches, private clubs or other similar nonprofit organizations.
 - (b) Parking facilities for residential uses where six (6) or fewer spaces are required.
 - (c) Parking areas, isles and loading for agricultural uses in the Agricultural (AG) District.
 - (d) Parking areas in the Heavy Industrial (HI) District or manufacturing and industrial uses in the Light Industrial (LI) District, provided they are constructed with an all-weather surface.
 - (e) Parking areas for tracked heavy construction equipment, skid-mounted equipment and similar equipment, provided they are constructed with an all-weather surface.
- (4) Where parking facilities are paved, curb and gutter or an equivalent drainage system shall be provided along the periphery of the parking lot, except where it is determined by the Planning and Development Director that such system is not practical for storm drainage purposes.
- (5) All facilities shall be graded, properly drained, stabilized and maintained to minimize dust and erosion.
- (6) All parking spaces and stacking lanes shall be clearly identified with paint lines, bumper guards, curbs, or similar treatment.
- (7) All parking spaces shall be provided with wheel guards or curbs located so that no part of the parked vehicle will extend beyond the property line or encroach more



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

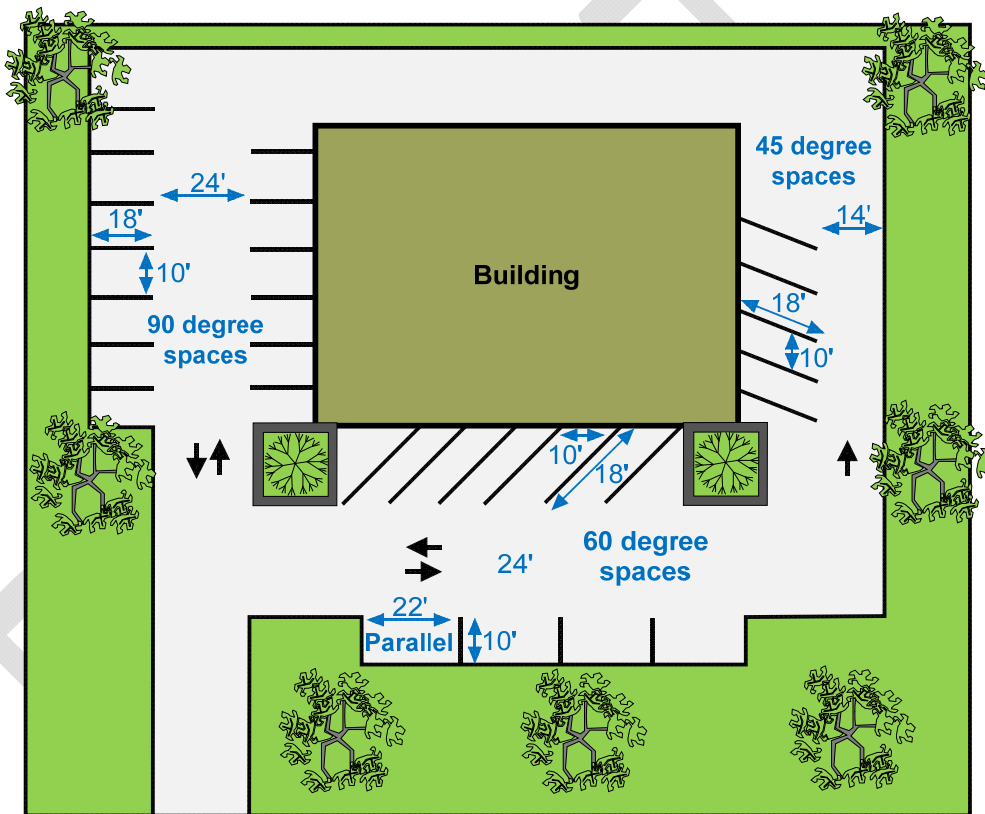
than two (2) feet into a required planting area. (Vehicle encroachment is calculated as two (2) feet beyond curb.)

- (8) (Parking lots shall be designed and constructed such that walkways maintain a minimum unobstructed width of four (4) feet.

TABLE 6-1-2: DESIGN AND DIMENSIONAL REQUIREMENTS

Parking Space Type	Minimum Width	Minimum Depth	Minimum Isle Width	
			One-Way	Two-Way
Parallel (0°)	10	22	12	20
Angled (45°)		18	14	20
Angled (60°)			16	24
Perpendicular (90°)			12	24

FIGURE 6-1-3: PARKING STALL MEASUREMENTS



I. HANDICAPPED ACCESSIBLE PARKING

1. A handicapped accessible parking space can be reduced to an eight-foot width as long as the space is adjacent to a minimum five-foot access aisle marked and constructed to ADA standards. Otherwise, the parking space shall be sized as a standard parking space.
2. All off-street handicapped accessible parking spaces shall be located in the closest parking area to a public entrance to the building but no more than two hundred fifty (250) feet from such entrance.
3. All off-street handicapped accessible parking spaces shall be designated by a sign or other means specified by State requirements.
4. The minimum number of spaces shall be provided according to the following table:



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

Parking Spaces Provided	Minimum Handicapped Spaces Required
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1,000	2% of spaces provided
>1,001	20 spaces, plus one for every 100 spaces over the first 1,000 spaces provided.

J. LOCATION

1. Off-site Parking Lots

When required off-street parking may be located off site, it shall begin within four hundred (400) feet of the zone lot containing the principal use. Required off-site parking shall not be located across an intervening major or minor thoroughfare.

2. Parking in Nonresidential Districts

Automobile parking for any use may be provided in any nonresidential district.

3. Parking in Residential Districts

Auto parking in a residential district for any use not permitted in that district is allowed under the following conditions:

- Property on which the parking is located must abut the lot containing the use which the parking serves. The property must be under the same ownership or subject to a parking encumbrance agreement approved by the Enforcement Officer. All access to such property shall be through non-residentially zoned property;
- Parking shall be used only during daylight hours except by Special Use Permit.
- No parking shall be located more than one hundred twenty (120) feet into the residential zoning district.
- No parking shall be permitted closer than one hundred fifty (150) feet to any public street right-of-way upon which the principal use would not be permitted driveway access. Parking may be allowed to extend up to four hundred (400) feet into the residential zoning district with approval of a Special Use Permit.
- Long-term or dead storage of more than sixty (60) days, loading, sales, repair work or servicing of vehicles is prohibited.

4. Townhouse Developments

In developments using individual driveways and garages to meet parking requirements, visitor parking areas shall be distributed such that the front entrance to each unit is not further than two hundred (200) feet from such area.

K. COMBINED PARKING

1. Separate Uses

The required parking for separate or mixed uses may be combined in one (1) facility.

2. Shared Parking



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

A maximum of fifty (50) percent of the parking spaces required for a church, theater, auditorium or assembly hall or other similar use may also serve as required spaces for another use located on the same zone lot. Shared spaces may also be located off-site. In either case the Planning & Development Director must determine that the various activities will have peak parking demands at different periods of the day or week. Otherwise, no off-street parking required for one (1) building or use shall be applied toward the requirements of any other building or use.

3. Reassignment

Required off-street parking spaces shall not be leased or otherwise assigned to another use except as provided Subsection H – Location of this Article.

L. LOADING AREAS

- Off-street loading areas shall be located on the same zone lot as the use they serve.
- The following table provided the minimum number of loading spaces required:

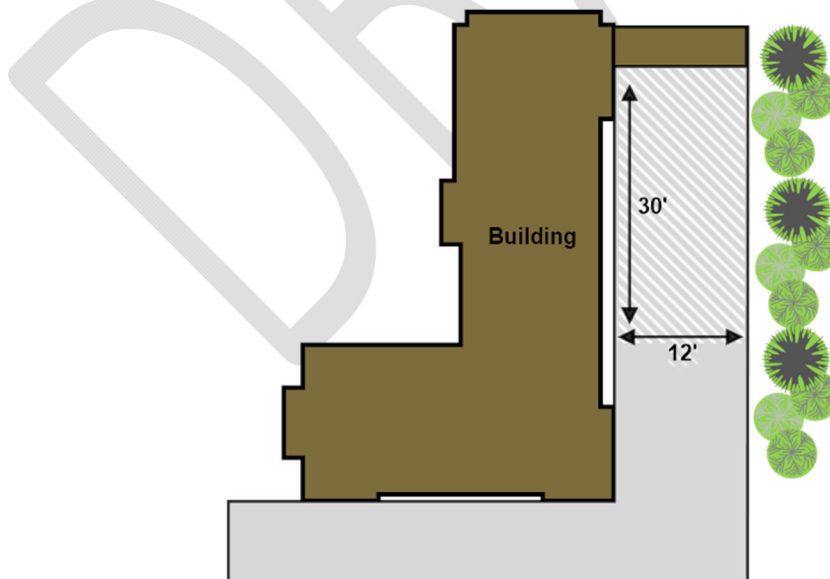
Use Type	Gross Floor Area	Minimum Number of Loading Spaces
Office & personal service establishments	10,000 sf or more	1
All other commercial or industrial use types	10,000 sf – 30,000 sf	1
	Over 30,000 sf	2+1 per every additional 50,000

3. Standards

a. Minimum Dimensions

Each loading space required by this subsection shall be at least twelve (12) feet wide by thirty (30) feet long (or deep), with at least fifteen (15) feet of overhead clearance. Each off-street loading space shall have adequate, unobstructed means for the ingress and egress of vehicles.

FIGURE 6-1-4: LOADING SPACE CONFIGURATION:





ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

b. Location

Where possible, loading areas shall be located to the rear of the use they serve. In addition, the loading area shall be located adjacent to the buildings loading doors, in an area that promotes their practical use.

c. Delineation of Loading Spaces

All loading spaces shall be delineated by signage and striping and labeling of the pavement.

d. Access to a Street

Every loading area shall be provided with safe and convenient access to a street, but in no case shall the loading space extend into the required aisle of the parking lot. Off-street loading spaces shall be configured to avoid the need for vehicles to back up within the street right-of-way, to the maximum extent practicable.

e. Paving

The ground surface of loading areas shall be paved with a durable, dust free, and hard material, such as surface and seal treatment, bituminous hot mix, Portland cement, concrete, or some comparable material. Such paving shall be maintained for safe and convenient use at all times.

M. STACKING AREAS

In addition to meeting the off-street parking standards in Table 6-1-1, uses with drive-through facilities and other auto-oriented uses where vehicles queue up to access a service shall provide the minimum number of stacking/standing spaces established in Table 6-1-5 below:

TABLE 6-1-5: STACKING REQUIREMENTS:

Use or Activity	Minimum Number of Stacking Spaces	Measured From
ATM (drive-up)	2	Teller Window
Auto Repair Services	2 per bay	Bay Entrance
Car Wash	1 per bay	Bay Entrance
Daycare Centers (not-in-home), Elementary & Middle school	2	Main building entrance
Bank or Financial Institution or General Retail (i.e. Pharmacy) Stores with drive-through service	3 per lane	Service Window
Convenience Store with Gasoline Pumps	1	Each end of the outermost gas pump island
Nursing & Convalescent Home or Congregate Care Facility	3	Building entrance
Retail Services with drive-through	3 per lane	Service Window
Restaurant with drive-through	3 per window + 3 per order board	
*NCDOT may require additional stacking spaces on state or federal highways		



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

N. USES WITH FLEXIBLE PARKING DEMAND CHARACTERISTICS

Uses that reference this subsection in Table 6-1-1, have widely varying parking and loading demand characteristics, making it difficult to establish a single off-street parking or loading standard. Upon receiving a plan review application for a use subject to this subsection, the Planning & Development Director is authorized to apply the off-street parking standard in the table that is deemed most similar to the use, or establish the off-street parking requirements by reference to standard parking resources published by the National Parking Association or the American Planning Association. Alternatively, the Planning & Development Director may require the applicant to submit a parking demand study that justifies estimates of parking demand based on the recommendations of the Institute of Traffic Engineers (ITE), and includes relevant data collected from uses or combinations of uses that are the same or comparable to the proposed use in terms of density, scale, bulk, area, type of activity, and location.

6.2 LANDSCAPING, BUFFERING & SCREENING REQUIREMENTS

A. PURPOSE AND INTENT

The purpose of this section is to promote and protect the public health, safety, and general welfare by providing for the planting, maintenance, and preservation of trees, shrubs, and other plants within the county. The intent of this section is to promote this purpose by:

1. Ensuring and encouraging the planting, maintenance, restoration and survival of trees, shrubs, and other plants;
2. Contributing to the protection of community residents and visitors from personal injury and property damage, and the protection of the county from property damage, caused or threatened by the improper planting, maintenance or removal of trees, shrubs or other plants;
3. Mitigating against erosion and sedimentation and reduce stormwater runoff;
4. Increasing the tree canopy to provide shade;
5. Protecting and enhancing property values and aesthetic qualities;
6. Providing visual screening, where appropriate.

B. APPLICABILITY

1. The regulations in this section shall not apply to the following:
 - a. Single family detached dwellings or two-family dwellings on an individual lot;
 - b. Multi-family developments containing eight (8) or fewer dwelling units in a single zone (building) lot;
 - c. Property lines abutting railroad rights-of-way and utility easements more than sixty (60) feet in width;
 - d. Property lines abutting dedicated street right-of-way which has remained unopened for at least fifteen (15) years.
2. The regulations in this section shall apply to the following:
 - a. **New Principal Building or Use**
Principal buildings or open uses of land constructed or established after the adoption of this Ordinance.
 - b. **Changes in land use category**
The requirements of this Section shall be applicable to the entire lot.
 - c. **Expansions or Reconstruction**



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

Expansions which will result in a parking or building square footage increases of more than three thousand (3,000) square feet for developments existing on the effective date of this Ordinance. In such cases the landscaping requirements shall apply only to the expansion.

3. Reduction in Parking Requirements for Pre-Existing Developments

To allow compliance with the landscaping regulations, the number of required off-street parking spaces may be reduced by the Planning & Development Director up to ten (10) percent.

C. PLANTING YARD REQUIREMENTS

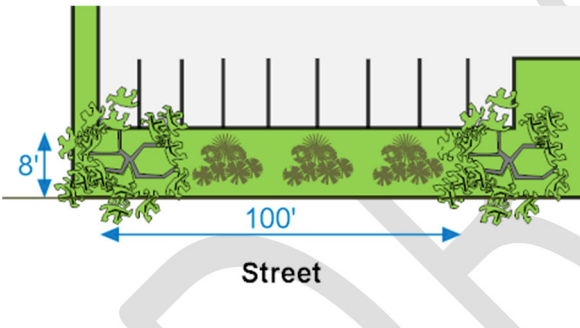
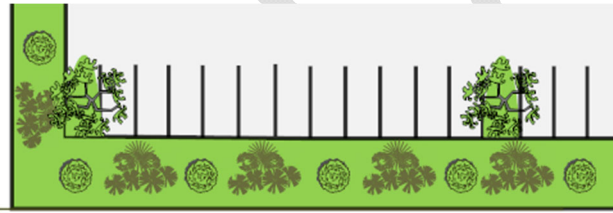
1. Required Planting Areas

The following areas are required to be landscaped:

- Street planting yards
- Parking lots
- Planting yards


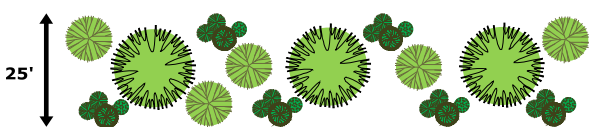
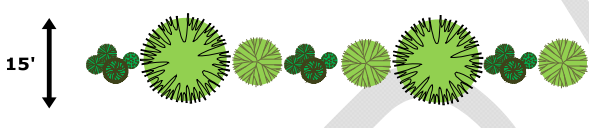

2. Planting Area Descriptions:

TABLE 6-2-1: PLANTING AREA DESCRIPTIONS

Planting Yard Type	Description	Min. Width	Min. Average Width	Max. Width	Planting Requirement Rate
STREET PLANTING YARD					
	A planting area parallel to a public street designed to provide continuity of vegetation along the right-of-way and a pleasing view from the road. No more than fifteen (15%) percent of the street planting yard may be used for walkways or signs. Parking, merchandise display and off-street loading are prohibited in the street planting yard.	8'	8'	25'	<p>Tree Canopy: 2 per 100 lf</p> <p>Tree Understory: No requirement</p> <p>Shrubs: 17 per 100 lf</p>
PARKING LOT PLANTINGS					
	Planting areas within and adjacent to parking areas designed to shade and improve the attractiveness of large areas of pavement.	10'	N/A	N/A	<p>Interior: 1 canopy tree per 12 spaces;</p> <p>Perimeter: 1 canopy tree every 30', continuous row of evergreen shrubs</p>



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

TYPE A PLANTING YARD					
	<p>A high density screen intended to block substantially visual contact between adjacent uses and create spatial separation. A Type A Planting Yard reduces lighting and noise which would otherwise intrude upon adjacent uses.</p>	40'	50'	75'	<p>Canopy: 4 per 100 lf</p> <p>Understory: 10 per 100 lf</p> <p>Shrubs: 33 per 100 lf</p>
TYPE B PLANTING YARD					
	<p>A medium density screen intended to partially block visual contact between uses and create spatial separation.</p>	25'	30'	50'	<p>Canopy: 3 per 100 lf</p> <p>Understory: 5 per 100 lf</p> <p>Shrubs: 25 per 100 lf</p>
TYPE C PLANTING YARD					
	<p>A low density screen intended to partially block visual contact between uses and create spatial separation.</p>	15'	20'	40'	<p>Canopy: 2 per 100 lf</p> <p>Understory: 3 per 100 lf</p> <p>Shrubs: 17 per 100 lf</p>
Type D PLANTING YARD					
	<p>A peripheral planting strip intended to separate uses, provide vegetation in densely-developed areas and enhance the appearance of individual properties.</p>	5'	5'	10'	<p>Canopy: N/A</p> <p>Understory: 2 per 100 lf</p> <p>Shrubs: 18 per 100 lf</p>

D. PLANTING YARD DETERMINATION

To determine the planting yards required by this Ordinance, the following steps shall be taken:

1. Identify the zoning category of the proposed or expanded land use and of any existing or proposed adjacent zonings.
2. Use the Planting Yard Chart, Table 6-2-2 below, to determine the appropriate letter designation for each planting yard.
3. Match the letter designation obtained from the Planting Yard Chart with the Planting Requirement Rate Column in Table 6-2-2, to determine the types and numbers of shrubs and trees required.



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

TABLE 6-2-2: PLANTING YARD CHART

Zoning Classification of Site	Zoning Classification of Adjacent Site					
	AG	All RS Districts	All RM Districts	PI, LO, MXU, LB, NB	GB, HC, CP	LI, HI
AG	N/A	N/A	N/A	B	A	A
All RS Districts	D	N/A	C	B	A	A
All RM Districts	C	D	N/A	C	B	A
PI, LO, MXU, LB, NB	B	B	B	D	C	B
GB, HC, CP	A	A	B	C	D	C
LI, HI	A	A	A	B	C	D
Notes: <ol style="list-style-type: none"> 1. A proposed nonresidential use locating next to vacant property shall be required to install a Type D planting yard. 2. A non-residential or multi-family residential with 8 or more units adjacent to an AG or RS zoning district shall be required to install a Type C planting yard. 3. Use of a vacant parcel with a valid preliminary plat or site plan shall be considered developed for the approved use. 						

E. DESIGN AND MAINTENANCE STANDARDS

1. Calculation of Street Planting Yards

Street planting yard rate and width calculations shall exclude access drives.

2. Plant Species

Species used in required street planting yards, parking lots and planting yards shall be of a locally adapted nature. Refer to the recommended plant species list.

3. Dimension of Planting Areas or Islands

Each planting area containing trees, including those located in parking lots, shall have a minimum inside dimension of seven (7) feet and be at least two hundred (200) square feet in area.

4. Grouping

For the Type B, C, and D planting yards, shrubs and trees may be grouped or clustered; however, not more than fifty (50) percent of each required plant material may be grouped or clustered. The remainder of the materials shall be distributed throughout the planting yard. There shall be at least one (1) row of evergreen shrubs or evergreen understory trees in all Type A planting yards.

5. Parking Lot Spacing

Required canopy tree areas shall be distributed throughout parking lots and shall be located within or adjacent to parking lots as tree islands, at the end of parking bays, medians, or between rows of parking spaces.

6. Canopy Tree Size

Canopy trees must be a minimum of eight (8) feet high and two (2) inches in caliper, measured six (6) inches above grade, when planted. When mature, a canopy tree should be at least forty (40) feet high and have a crown width of thirty (30) feet or greater. Height calculations for landscaping must account for future interference with utility lines and shall



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

remain out of any other utility easements. When such conditions exist, an alternative planting plan may be approved by the Administrator on a case by case basis.

7. Understory Tree Size

Understory trees must be a minimum of four (4) feet high and one (1) inch in caliper, measured six (6) inches above grade, when planted.

8. Shrub Size

All approved shrubs shall be installed at a minimum size of eighteen (18) inches, spread or height and are expected to reach a minimum height of thirty-six (36) inches, and a minimum spread of thirty (30) inches within three (3) years of planting.

9. Berms

Berms may be used in an alternate planting plan as a substitute for some plant materials, subject to approval of the Planning & Development Director.

10. Wall Planters

Wall planters shall be constructed of masonry, stone, or pressure treated lumber stamped for ground contact. The minimum height of the wall planter shall be thirty (30) inches. The minimum height of shrubs in the wall planter shall be six (6) inches. The effective planting area of the wall planter shall be four (4) feet in width. If the wall planter is to contain trees, the effective planting width shall be seven (7) feet.

11. Encroachments Permitted in Required Planting Yards

The following are permitted in required planting yards provided the landscaping requirements are met and there is no interference with any sight area:

- a. Landscaping features, including but not limited to ornamental pools, planting boxes, sculpture, arbors, trellises, and birdbaths.
- b. Pet shelters, at-grade patios, play equipment, outdoor furniture, ornamental entry columns and gates, flag poles, lamp posts, address posts, HVAC equipment, mailboxes, outdoor fire places, public utility wires and poles, pumps, wells, fences, retaining walls, or similar structures.
- c. Cornices, steps, canopies overhanging eaves and gutters, window sills, bay windows or similar architectural features, chimneys and fire places, fire escapes, fire balconies, and fire towers may project not more than two and one-half (2½) feet into any required planting yard, but in no case shall be closer than three (3) feet to any property line.
- d. Permanent runoff control structures.

12. Fence Location Within Required Planting Yards

The setback of fences within a required planting yard shall be subject to the approval of a landscaping plan.

13. Setback Less than Planting Yard

If the required building setback is less than the required planting yard, the building setback shall control, reducing the required planting yard width only alongside the building. The planting rate of the required planting yard shall still apply.

14. Location of Planting Material Outside Shade of Building

Where a building is located less than ten (10) feet from a property line, and the planting yard would be heavily shaded by buildings on both sides of the property line, the required trees and shrubs may be planted outside the shaded area to improve survivability.

15. Obstructions

Landscaping shall not obstruct the view of motorists using any street, driveway or parking aisle.

16. Location



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

Required trees and shrubs shall not be installed in street rights-of-way. Required trees and shrubs may be placed in water quality conservation easements. Required trees and shrubs may be planted in electric utility easements below overhead lines and in drainage maintenance and utility easements by approval of the Technical Review Committee.

17. Plant Protection

Whenever planting areas are adjacent to parking lots or drives, the planting areas shall be protected from damage by vehicles, lubricants or fuels.

18. Maintenance

The owner is responsible for maintaining all required plant materials and planting areas in good health and appearance. Any dead, unhealthy or missing plants must be replaced within one hundred and eighty (180) days with vegetation which conforms to the initial planting rates and standards. When plant material is severely damaged due to unusual weather conditions or other acts of God, the owner shall have two (2) years to replant.

F. SPECIFIC SCREENING REQUIREMENTS

1. Applicability

These screening standards are required as a means of screening objectionable site features like refuse collection areas, service and loading facilities, ground-based utility equipment, or similar site features from view of adjacent land and streets.

2. General Requirements

In addition to the site landscaping, vehicular use area landscaping, and perimeter buffer standards in this section, screening shall be required to conceal specific areas of high visual or auditory impact or hazardous areas from both on-site and off-site views. Such areas shall be screened at all times, unless otherwise specified, regardless of adjacent uses, districts, or other proximate landscaping material.

3. Items to be screened

The following areas shall be screened from off-site views in accordance with this section

- a. Dumpsters and refuse collection points (including cardboard recycling containers);
- b. Loading docks or bays;
- c. Outdoor storage areas;
- d. To the extent feasible given access requirements, ground-based utility equipment in excess of twelve (12) cubic feet; and
- e. Ground level mechanical units, from public streets only.

4. Screening Methods

The following items are permitted for use as screening materials. Alternative screening materials that are not listed may be used if the Planning & Development Director determines they are comparable to these screening materials.

- a. Vegetative materials that meet the minimum vegetative screening requirements for a Type D buffer.
- b. An earthen berm that is at least two feet in height, covered with grass, and planted with other landscaping materials consistent with the function of and requirements for a Type D buffer is provided, however, that a berm shall not be used if it will replace existing trees of six (6) inches in caliper or more;
- c. An opaque fence constructed of treated or rot-resistant wood or a plastic or vinyl fence designed to look like an opaque wooden fence, of a minimum height necessary to fully-screen the object being screened; or



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

- d. A masonry wall that is the minimum height necessary to fully-screen the object being screened, and that is constructed of brick, textured concrete masonry units, or stuccoed block.
 - e. Use of chain link fencing with wooden or plastic slats shall be limited to access gates only.
- 5. **Exemptions:** Screening is not required in the HI district, unless the item listed in Subsection 6.2.F.3, Items to be Screened, of this Ordinance are located within one hundred (100) feet of a residential land use.

G. PROCEDURES

1. Landscaping Plan Required

Prior to obtaining a building permit, an applicant must receive approval of a landscaping plan from the Planning & Development Director, site plans may include a conceptual landscaping plan and delay submission of the landscaping plan for up to ninety (90) days after issuance of the building permit.

2. Installation of Plant Materials

- a. Installation of plant material shall occur prior to the issuance of a Certificate of Occupancy.
- b. If at the time of a request for a Certificate of Occupancy, the required planting areas are not complete, and it can be determined that:
 - (1) Plant materials are unavailable;
 - (2) Completion of the planting areas would jeopardize the health of the plant materials; or
 - (3) Weather conditions prohibit completion of the planting areas, then the installation of plant materials may be deferred by the Planning & Development Director.

The developer shall submit a copy of a signed contract for installation of the required planting areas and may be required to post a surety equal to the amount of the contract. In no instance shall the surety be for a period greater than one hundred eighty (180) days. The Planning & Development Director may issue a Temporary Certificate of Occupancy but shall not issue a Certificate of Occupancy until the planting areas have been completed and approved.

H. ALTERNATE METHOD OF COMPLIANCE

1. General Provisions:

- a. Alternate landscaping plans, plant materials or planting methods may be used where unreasonable or impractical situations would result from application of landscaping requirements. Such situations may result from utility easements, streams, natural rock formations, topography, lot configuration, or where other physical conditions exist, or where other site conditions exist such as unified development design.
- b. The Planning & Development Director may approve an alternate plan which proposes different plant materials, planting yard widths, or methods provided that quality, effectiveness, durability and performance are equivalent to that required by this Ordinance.
- c. The performance of alternate landscaping plans must be reviewed by the Planning & Development Director to determine if the alternate plan meets the intent and purpose of this Ordinance. This determination shall take into account the land use classification of adjacent property, number of plantings, species, arrangement and coverage, location



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

of plantings on the lot, and the level of screening, height, spread, and canopy of the plantings at maturity.

2. **Lot of Record Provisions:** For lots less than one hundred (100) feet in width the following provisions may be applied:
 - a. For lots less than one hundred (100) feet and greater than eighty (80) feet in width where Type D Planting Yards are required, one (1) Type D planting yard may be eliminated from the landscaping plan if the Planning & Development Director finds that strict application of the requirements of this Section prevents reasonable use of the property. However, the plantings required for this yard shall be installed in remaining planting yards.
 - b. For lots less than eighty (80) feet in width where Type D planting yards are required, two (2) Type D planting yards may be eliminated from the landscaping plan if the Planning & Development Director finds that strict application of the requirements of this Section prevents reasonable use of the property. All required plants for these yards shall be installed in remaining planting yards.

I. TREE PRESERVATION

1. **General:** Any existing tree or group of trees which stands within or near a required planting area and meets or exceeds the standards of this Ordinance may be used to satisfy the tree requirements of the planting area. The protection of tree stands, rather than individual trees, is strongly encouraged. Trees of greater age shall be prioritized.
2. **Protection of Existing Trees:** To receive credit, trees must be protected from any root damage and trunk and crown disturbance. The following standards shall apply:
 - a. The protected area around trees shall include all land within the canopy drip line or enough area to ensure the health of the tree.
 - b. Construction site activities such as parking, material storage, soil stock piling and concrete washout shall not be permitted within tree protection areas.
 - c. Protective fencing shall be installed around tree protection areas prior to any land disturbance. Such fences shall be at least four (4) feet high and may consist of snow fence or polyethylene safety fencing. Fencing shall remain in place until construction is complete and other landscaping has been installed.
3. **Dead or Unhealthy Trees:** No credit will be allowed for any dead tree, any tree in poor health or any tree subjected to grade alterations. The death of any tree used for preservation credit shall require the owner to plant new trees equal to the number of credited trees.
4. **Rate of Credit:** Credits shall be allowed at the rate of one (1) canopy tree for every three (3) inches of circumference measured at four and one-half (4½) feet above grade. Credits shall be subtracted from the total number of canopy and understory trees required in the same planting yard where the tree is located. In every case, however, there shall be at least one (1) canopy tree for every fifty (50) linear feet of street planting yard, existing or planted.



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

6.3 LIGHTING

A. PURPOSE AND INTENT

The purpose of this section is to regulate light spillage and glare to ensure the safety of motorists and pedestrians, and to ensure lighting does not adversely affect land uses on adjacent lands. More specifically, this section is intended to:

1. Regulate lighting to assure that excessive light spillage and glare are not directed at adjacent lands, neighboring areas, and motorists;
2. Ensure that all site lighting is designed and installed to maintain adequate lighting levels on site;
3. Avoid negative impacts from exterior lighting on coastal wildlife habitat; and
4. Provide security for persons and land.

B. APPLICABILITY

This section regulates any new outdoor lighting after December 15, 2011, unless exempt in this Ordinance.

C. EXEMPTIONS

The following are exempt from all lighting requirements in this section:

1. Temporary events and holiday displays;
2. Bona-fide farms or Voluntary Agricultural District;
3. Airport runway and aviation safety lights required by the FAA (e.g., warning light on radio, television, communication towers);
4. Security lights controlled and activated by motion sensor devices for a duration of fifteen (15) minutes or less;
5. Kerosene lanterns, gas lamps or similar lighting produced by combustion of fuels;
6. Street lighting;
7. Lighting of official governmental flags;
8. Lighting for outside recreational/performance uses, subject to Subsection E below;
9. Temporary lighting necessary for construction or emergencies used by construction workers or emergency personnel.
10. Single family detached dwellings or two-family dwellings on their lots.

D. PROHIBITED LIGHTING

The following lighting is prohibited:

1. Light fixtures that imitate an official highway or traffic control light or sign;
2. Light fixtures in the direct line of vision with any traffic control light or sign;
3. Light fixtures that have a flashing or intermittent pattern of illumination, except for time and temperature displays;
4. Privately-owned light fixtures located in the public right-of-way; or
5. Searchlights, except when used by Federal, State or local authorities.

E. GENERAL STANDARDS

1. Hours of Illumination

Commercial uses, and industrial uses that are adjacent to existing residential development shall extinguish all exterior lighting—except lighting necessary for security or emergency



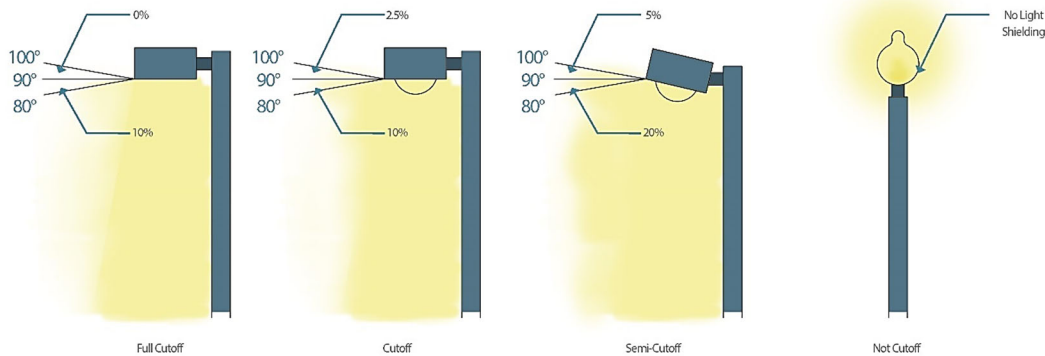
ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

purposes—by 10:00 P.M. For the purposes of this subsection, lighting “necessary for security or emergency purposes” shall be construed to mean the minimum amount of exterior lighting necessary to illuminate possible points of entry or exit into a structure, to illuminate exterior walkways, or to illuminate outdoor storage areas. Lighting activated by motion sensor devices is strongly encouraged.

2. Shielding

All exterior luminaires, including security lighting, shall be full cut-off fixtures and directed downward, consistent with Figure 6-3-1. In no case shall lighting be directed above a horizontal plane through the lighting fixture.

FIGURE 6-3-1: LIGHT SHIELDING



3. Maximum Height

Except for athletic fields or performance areas, the height of outdoor lighting, whether mounted on poles, walls, or by other means, shall be no greater than thirty-five (35) feet above grade.

4. **Maximum Illumination Levels** All outdoor lighting and indoor lighting visible from outside shall be designed and located so that the maximum illumination measured in footcandles at ground level at a lot line shall not exceed the standards in Table 6-3-2 below:

TABLE 6-3-2: MAXIMUM ILLUSTRATION LEVELS	
Type of Use Abutting Lot	Maximum Illumination Level at Lot Line (Footcandles)
Residential use or vacant land zoned residential	0.5
Civic, Educational & Institutional	1.0
Commercial, Mixed Use or Vacant Land	2.0
Industrial Use	3.0
Parking Lot	2.5



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

5. Canopy Lighting

Lighting under vehicular canopies must not exceed thirty (30) initial foot-candles measured at grade on a horizontal plane and must be designed to prevent off-site glare.

6. Outdoor Recreation

Sports fields and outdoor recreational areas are subject to the following standards:

- a. Lighting must be designed and directed to fall within the activity or performance areas, minimize adverse impacts on traffic safety and residentially-zoned property.
- b. Lighting must minimize glare with glare control packages such as louvers, shields or similar cut-off fixtures or devices.
- c. Hours of operation for the lighting system must not exceed one hour after the end of the event or until activity/performance area has been cleared and closed.

F. LIGHTING PLANS

Required site plans shall indicate compliance with the outdoor lighting standards, fixture types, shielding, and fixture heights.

G. ALTERNATE METHOD OF COMPLIANCE

Alternate lighting plans or fixtures may be approved by the Technical Review Committee where unreasonable or impractical situations would result from application of the lighting requirements. Such situations may result from physical constraints, from other site constraints, or when Federal, State or local law prevents compliance with this Ordinance. Alternate plans or fixtures must provide equal or better performance to meet the intent and purpose of this Ordinance.

6.4 FENCES

A. PURPOSE AND INTENT

The purpose and intent of this section is to regulate the location, height, and appearance offences and walls to maintain visual harmony within neighborhoods and throughout the county, protect adjacent properties from the indiscriminate placement and unsightliness of fences and walls, and ensure the safety, security, and privacy of properties.

B. APPLICABILITY

This Section regulates all fences unless otherwise provided in this Ordinance. Fences are permitted in required setbacks according to Article 4 - Zoning, provided the requirements of this Section are met.

C. GENERAL FENCE REQUIREMENTS

1. Obstruction of View

No fence shall be placed or retained in such a manner as to obstruct vision at any intersection of public or private streets.

2. Obstruction of Drainageway

Fence construction shall not alter or impede the natural flow of water in any stream, creek, drainage swale or ditch.

3. Historic Districts

Fences in Historic Districts shall meet the guidelines for the particular Historic District in which it is located.

4. Obstruction of Access



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

No fence shall block access from doors or windows. Fences must have a clearance of at least two (2) feet from building walls, except where fences project from or to a building wall.

5. **Orientation of Barbed Wire:** On fences topped with barbed wire, the bottom strand must be at least six (6) feet above grade with vertical supports slanting at a minimum thirty (30) degree angle.
6. **Low-Voltage Electrified Fencing.** Low-voltage electrified fencing with a maximum of twelve (12) volts, primary voltage, is allowed in the Light Industrial and Heavy Industrial Districts (requestor asking for any non-residential outdoor storage area), provided that:
 - a. An electrified fence may not exceed ten (10) feet in height;
 - b. An electrified fence must be inside of or enclosed by a non-electrified fence or wall with a minimum height of six (6) feet;
 - c. The entire electrified fence must be separated from the non-electrified fence or wall by a minimum distance of at least six (6) inches at the closest point;
 - d. The electrified fence must be identified by a warning sign displayed at the rate of at least one sign per fifty (50) linear feet of fencing; and
 - e. A Knox Box shall be required and installed per the standards and direction of the Fire Department (optional).
 - f. Location Within Required Planting Yards: The setback of fences within a required planting yard shall be subject to the approval of a landscaping plan.

D. PERMITTED FENCE TYPES

The following fence types are permitted in all zoning districts:

1. Masonry or stone walls;
2. Ornamental iron;
3. Chain-link or woven wire; and
4. Wood or similar material

E. PROHIBITED FENCE TYPES

The following fence types are prohibited:

1. Fences constructed primarily of barbed or razor wire, except for the purpose of enclosing livestock in agricultural zoning districts, and fences topped with barbed wire or metal spikes in residential zoning districts, except those serving a public institution requiring a security fence for public safety purposes;
2. Fences carrying electrical current, except for the purpose of enclosing livestock in agricultural zoning districts; or as allowed in Subsection H – General Fence Requirements;
3. Fences constructed in whole or in part of readily flammable material such as paper, cloth or canvas;
4. Fences constructed of concertina wire.

F. MAINTENANCE REQUIRED

Any fence which endangers any person, animal or property is hereby deemed a nuisance. If such conditions exist, the Enforcement Officer shall require the owner or occupant of the property upon which the fence is located to repair, replace or demolish the fence causing the nuisance.

G. HEIGHT

1. Residential Uses:
 - a. Before Front Setback: No fence shall exceed four (4) feet in height up to the front setback line.



ARTICLE 6 – GENERAL DEVELOPMENT STANDARDS

- b. Behind Front Setback: No fence shall exceed seven (7) feet in height behind the front setback line.
- c. Exceptions:
 - (1) No fence shall exceed four (4) feet in height within fifteen (15) feet of any public or private street right-of-way line in a group housing development unless the sole purpose is to enclose a patio; a patio enclosure shall not exceed seven (7) feet in height.
 - (2) On through lots where a front setback abuts a major or minor thoroughfare and there is no driveway access or sight distance interference, a fence may be seven (7) feet in height as long as such fence is no closer than fifteen (15) feet from the thoroughfare right-of-way.
- 2. **Recreational Uses:** No fence shall exceed twelve (12) feet in height if the fence is within the required setback (transparency). Otherwise, no fence shall exceed eight (8) feet in height.
- 3. **Commercial, Industrial, Institutional or Office Uses:** No fence shall exceed eight (8) feet in height unless it meets the requirements of Subsection H – General Fence Requirements.
- 4. Measurement:
 - a. Fence height shall be measured in the same manner as buildings. However, where fences are located on retaining walls or man-made berms, the height of the retaining wall or berm shall be considered as part of the overall height of the fence.
 - b. Fence height limitations do not apply to fences built in conjunction with electric or gas substations, utility facilities, sewer plants or facilities, radio and television masts, towers and similar structures, municipal water storage facilities, public correctional and mental institutions, or military facilities, or hazardous or radioactive waste, storage, and disposal facilities.

H. TEMPORARY FENCES

Nothing in this Section shall preclude the installation of temporary fences around construction works, erected or maintained pursuant to the North Carolina State Building Code or the Soil Erosion and Sedimentation Control regulations.