

Sec. 3.11.4. Design and Development Standards

3.11.4.1. Parking and Access Standards

A. Applicability

1. **General.** No building or land, or any part of any building or land, may be occupied or used until parking has been provided in accordance with this Section.
2. **Additions**
 - a. A building or site may be renovated or repaired without providing additional parking, provided there is no increase in gross floor area or improved site area.
 - b. When a building, use or site is increased in gross floor area or improved site area, parking is required for the additional floor or site area only.
 - c. When the gross floor area or improved site area is increased by more than 50% cumulatively, both the existing use and the additional floor or site area must conform to the parking requirements of Section 3.11.
3. **Change in Use**
 - a. A change in use must comply with the parking requirements unless the Town Manager determines the use has the same or a lesser parking demand than the previous use.
 - b. Where required parking spaces for the new use exceed the required parking spaces for the existing use, additional parking is only required for the difference between the current parking spaces required and the parking spaces required for the new use.

B. Vehicle Parking

1. **Required Spaces.** The minimum and maximum parking spaces are provided in the Table below and are required unless an alternative is approved by the Town Manager.
2. **Outdoor Dining.** Outdoor dining located in the build-to zone or a forecourt permitted under Sec. 3.11.2.6 are exempt from the calculation of required vehicle parking spaces.
3. **Parking Maximums.** Parking spaces provided in an underground or structured parking garage do not count toward the maximum number of spaces permitted.
4. **Appearance of Structured Parking.** Structured parking visible from the public realm shall be architecturally compatible with the principal building as deemed appropriate by the Community Design Commission. An architectural screen that utilizes durable materials and/or other features offering visual interest shall be provided.

C. Required Parking. The following vehicle and bicycle parking spaces are required for each use.

	Vehicle		Bicycles	
	Parking Spaces (min)	Parking Spaces (max)	Spaces (min)	Short- / Long-term
Residential Uses				
Attached living, multifamily living				
Efficiency, 1 bedroom	1 per unit	1.25 per unit	1 per 2 units	20% / 80%
2 bedrooms	1.25 per unit	1.75 per unit		
3 bedrooms	1.5 per unit	2.25 per unit		
4+ bedrooms	1.67 per unit	2.5 per unit		
All group living	1 per 4 beds	1 per 2 beds	1 per 4 beds, 4 min	10% / 90%
Public Uses				
Civic/Place of Worship	1 per 500 sf of floor area	1 per 350 sf of floor area	1 per 5,000 sf of floor area, 4 min	80% / 20%
Parks & open space	None	None	None	None
Minor utilities	None	None	None	None
Commercial Uses				
All commercial uses, except as listed below:	1 per 300 sf of floor area	1 per 200 sf of floor area	1 per 2,500 sf of floor area, 4 min	80% / 20%
Commercial parking	None	None	None	None
Overnight lodging	0.9 per lodging unit	1.25 per lodging unit	1 per 15 lodging unit, 4 min	20% / 80%
Restaurant/bar	1 per 110 sf of floor area	1 per 75 sf of floor area	1 per 1,000 sf for floor area, 4 min	80% / 20%
Industrial Uses				
All industrial uses	1 per 1,250 sf	1 per 900 sf	4 min	20% / 80%
Open Uses				
All open uses	None	None	None	None

1. **Reductions.**

- a. A reduction of up to twenty (20) percent of the minimum number of required vehicular parking spaces may be permitted through the granting of an alternative ratio by the town manager if, based on substantial evidence, the manager finds that compliance with the full minimum off-street vehicular parking space requirements of this section would not be required by the applicant's proposed use. This reduction applies to bicycle parking spaces as well, provided that the ratio between Class A and Class B spaces remains the same as the requirement in this Section.
- b. A total reduction of up to forty (40) percent of the minimum number of required vehicular and bicycle parking spaces may be permitted for projects serving the elderly or handicapped, following a positive recommendation from the planning director and approval of the town manager.
- c. Motorcycle and scooter parking may substitute for required parking spaces. Existing parking may be converted to take advantage of this provision.
 - i. Motorcycle and scooter parking may substitute for up to five (5) vehicle spaces or five (5) percent of the required parking spaces, whichever is less. For every two (2) motorcycle or scooter parking spaces provided, the vehicle parking space requirement is reduced by one (1) space.
 - ii. Motorcycle and scooter parking spaces must be identified or designated through the use of signage or pavement markings.
- d. A reduction of up to twenty (20) percent of the minimum parking requirements may be achieved by providing a transportation management plan subject to approval by the town manager or subject to approval by the town council if the proposed use requires town council approval. The transportation management plan shall identify efforts to promote the use of alternate modes of transportation and may include required parking and/or payment to the Town of Chapel Hill Parking Fund in accord with Chapter 11A

of the Chapel Hill Code of Ordinances for a portion of the required spaces.

- e. A reduction of up to fifty (50) percent of the minimum number of required vehicular parking spaces is permitted if the mix of uses within a proposed development contains at least twenty-five (25) percent of the floor area devoted to Residential uses and at least twenty-five (25) percent of the floor area devoted to Commercial uses.
- f. A reduction of the number of required spaces may be achieved through a shared parking analysis certified by a professional engineer and subject to approval by the town manager. Such an analysis may include, where appropriate, considerations of peak hour usage, mode split, internal capture, remote parking as defined in this section, transportation demand management, and other approved parking management strategies.
- g. Nothing in this section precludes an applicant from pursuing Shared Parking as outlined in Section 5.9.3.

D. **Location of Parking.** Required vehicle parking must be located on the same lot as the use they are intended to serve, except as listed below.

1. **On-Street Parking**

- a. Each on-street parking space may be used to reduce the total required parking spaces by one space, provided that the on-street space is located on a public right-of-way immediately abutting the subject property.
- b. Each on-street parking space may only be counted for one property. Where a space straddles an extension of a property line, the space may only be counted by the owner whose property abuts 50% or more of the on-street parking space.

2. Remote Parking

- a. All required parking spaces may be located off-site, in a commercial parking lot or as shared parking associated with another land use, if the parking area is located within 660 feet from the primary entrance of the use served.
- b. Up to 50% of the required parking spaces may be located more than 660 feet off-site, if the parking area is located within 1,200 feet from the primary entrance of the use served.
- c. Specifically designated parking spaces for employees may be located off-site up to 2,640 feet from the primary entrance of the use served.
- d. All remote parking spaces used to meet an on-site parking requirement must be located within the boundaries of the Form District.
- e. The distances referred to above are measured by the most direct route of travel on the ground and are measured in the following manner:
 - i. From the front door of the principal structure on the applicant's property;
 - ii. In a straight line to the nearest public sidewalk, street, road or highway;
 - iii. Along a public sidewalk, walkway, street, road, or highway by the nearest route; and
 - iv. To the edge of the off-site parking area to be used by the applicant to meet parking requirements.

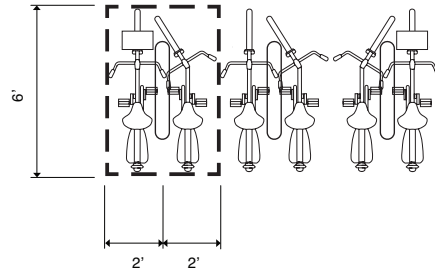
E. Bicycle Parking

1. Required Spaces

- a. The minimum required bike spaces required are provided in the Table above and are required unless an equivalent or better alternative is approved by the Town Manager.
- b. In no case is a single use occupiable space or unit required to provide more than 20 bicycle parking spaces.

2. **General Requirements.** Bicycle parking may be provided through various types of facilities, provided the facility meets the following:

- a. Each required bicycle parking space is at least 2 feet by 6 feet;



- b. Bicycle racks are securely anchored, are easily usable with both u-locks and cable locks and support a bicycle at two points of contact to prevent damage to the bicycle wheels and frame;
- c. Where a bike can be locked on both sides without conflict, each side can be counted as a required space;
- d. Spacing of the racks provide clear and maneuverable access; and
- e. Facilities may be placed on private property or within the public right-of-way. Facilities in the right-of-way must be approved by the Town Manager.

3. **Short-Term Bicycle Parking.** Short-term bicycle parking is intended for clients and customers. Short-term bicycle racks must be publicly accessible and be located no more than 100 feet from the building entrance the bicycle rack is intended to serve.

4. **Long-Term Bicycle Parking.** Long-term bicycle parking is intended for residents and employees.

- a. Long-term bicycle parking must be covered and weather-resistant.
- b. Required spaces can be in the form of a covered bicycle rack, in a locker, within a building, or within a parking structure.
- c. Long-term bicycle racks must be located no more than 100 feet from the building entrance the bicycle rack is intended to serve.

F. Drive-Thru Standards

1. **Location.** Drive-thru locations are subject to approval of a Special Use Permit. Drive-thru areas, including but not limited to menu boards, stacking lanes, trash receptacles, ordering box, drive up

windows, and other objects associated with the drive-thru, must be located interior to the site. Drive-thru windows and lanes may not be placed on a street-facing façade and the associated building. Drive-thru lanes are considered a vehicular access point subject to the requirements of Sec. 3.11.4.1.G.

2. **Required Stacking.** Adequate stacking space must be made available on-site for any use having a drive-thru. No more than 3 drive-thru lanes are permitted.

- a. **Restaurant.** A restaurant (including a coffee shop) with a drive-thru must provide a minimum of 6 spaces before the order board, with another 4 spaces provided between the order board and the transaction window.
- b. **Bank.** A bank with a drive-thru must provide a minimum of 3 spaces measured from the teller box.
- c. **Pharmacy.** A pharmacy with a drive-thru must provide a minimum of 3 spaces measured from the order box.
- d. **Dry Cleaner.** A dry cleaner with a drive-thru must provide a minimum of 3 spaces measured from the pick up door.
- e. **All Other Uses.** Stacking required for all other uses will be determined by the Town Manager.

3. **Dimensions**

- a. The number of required stacking spaces includes the space at the window or communication/mechanical device (e.g., order board, pick up window).
- b. If a drive-thru has multiple order boxes, teller boxes or pick up windows, the number of required stacking spaces may be split between each order box, teller box or pick up window.
- c. Vehicles may not encroach on or interfere with the public use of streets and sidewalks by vehicles, bicycles or pedestrians.
- d. Drive-thru lanes must be separated by striping or curbing from other parking areas. Individual lanes must be striped, marked or otherwise distinctly delineated.

4. **Screening**

- a. Drive-thru windows and lanes must be screened from the public realm along Type A and Type B Frontages and adjacent ground floor residential uses for the entire length of the drive-thru lane, including but not limited to menu boards, stacking lanes, trash receptacles, ordering box, drive up windows, and other objects associated with the drive-thru must be screened.
- b. Screening must be a continuous compact evergreen hedge. At the time of installation, the screening must be at least 3 feet in height and reach a height of 4 feet within 3 years of planting.
- c. In lieu of the compact evergreen hedge, a screening wall with a minimum height of 4 feet may be installed. The wall must be compatible with the principal building in terms of texture, quality, material and color.

G. **Service Drive, Loading Dock Access and Vehicular Access**

- 1. **Vehicular Access.** The number of vehicular access points from a thoroughfare to any parcel shall be limited as follows:
 - a. No more than two (2) access points in any continuous 200' of lot frontage
 - b. No more than three (3) access points overall unless otherwise approved by the Community Design Commission.
 - c. Where two (2) such access points are located along the same block face, they shall be separated by a minimum of 30 feet.
 - d. Where a building fronts multiple streets or alleys, no access point may be located on the more restrictive assigned frontage or on the primary frontage, as applicable under Sec. 3.11.2.1.E.7, unless otherwise approved by the Community Design Commission.
 - e. No vehicular access may be provided between a building façade and a Type E frontage.
 - f. Internal vehicular connections to adjacent parcels are encouraged, particularly where a parcel has only one street frontage and where multiple access points are desired.

2. **Access Width.** A parking lot, garage opening, or service access shall not exceed two lanes in width unless otherwise approved by the Town Manager. Access points on alleys are exempt from this requirement.
3. **Gating.** Vehicular entry gates at garage entries shall be positioned a minimum of twenty (20) feet behind the front wall of the building.
4. **Pedestrian Access.** Where vehicular access to any parcel crosses any pedestrian path or sidewalk, the crossing shall be clearly marked and lighted for the safety of the pedestrian, and the public sidewalk shall remain generally in a continuous alignment in plan and profile with the sidewalk on either side of the vehicular access.

3.11.4.2. Landscaping Standards

A. **General Applicability.** No building or land, or any part of any building or land, may be occupied or used until landscaping and screening has been provided in accordance with this Section.

B. **Multifunctional Landscaping and Stormwater Management.** Nothing in this Section is intended to prevent the applicant from using landscaped areas for stormwater purposes, including landscape, screening, sidewalk and streetscape areas. Where low impact stormwater management features are incorporated, grading and edge treatments for landscaping and screening areas must allow stormwater inflow. In such cases, no berming or curbs are necessary. The Town Manager may modify the landscaping standards of this Section or the Design Manual to achieve this end.

C. Surface Parking Lots

1. Applicability

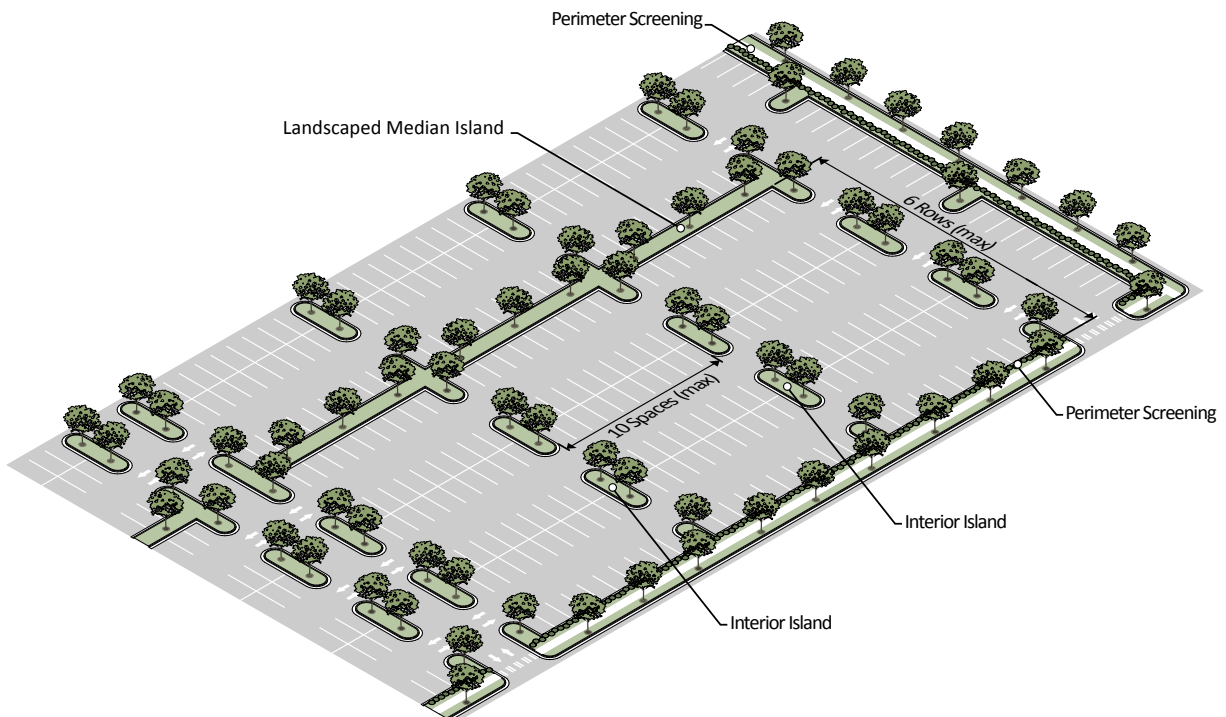
a. **New Construction.** All new surface parking lots with more than 10 spaces must provide parking lot landscaping in accordance with Section 3.11.4.2. Multiple platted lots contained on a single site plan and any separate parking areas connected with drive aisles are considered a single parking area.

b. Additions

- i. An existing parking lot may be renovated or repaired without providing additional landscaping, provided there is no increase in the size of the parking lot.
- ii. When an existing parking lot is increased in size, landscaping is required for the new parking area only.
- iii. When an existing parking lot is increased in size by more than 50% cumulatively, landscaping is required for both the existing parking lot and the new parking area.

2. **Perimeter Screening.** All surface parking lots (of any size) with frontage on any portion of a public street (not including an alley) must be screened with the following (see also Sec. 3.11.2.5):

- a. A minimum 5-foot wide, landscaped area with a continuous row of shrubs must be provided between the street and parking lot. For the Type C Frontage area along Fordham Boulevard, the Community Design Commission will review and have the discretion to increase the required planting zone up to 12' (twelve feet).



- b. Shrubs must be a minimum of 18 inches in height when planted and must reach a minimum size of 36 inches in height within 3 years of planting.
- c. A 36-inch wall may be substituted for the continuous row of shrubs.
- d. Breaks for pedestrian and vehicle access are permitted.

3. Interior Islands

- a. A landscaped interior island must be provided every 10 parking spaces. Interior islands must be distributed evenly throughout the parking area. Interior islands may be consolidated or intervals may be expanded in order to preserve existing trees.
- b. An interior island abutting a single row of parking spaces must be a minimum of 8 feet in width and 150 square feet in area. Each island must include 1 canopy tree.
- c. An interior island abutting a double row of parking spaces must be a minimum of 8 feet in width and 300 square feet in area. Each island must include 2 canopy trees.
- d. All required trees must be chosen from the approved the plant selection standards in the Town of Chapel Hill Design Manual.
- e. Interior islands may be installed below the level of the parking lot surface to allow for runoff capture.

4. Median Islands

- a. A landscaped median island must be provided between every 6 single parking rows. Intervals may be expanded in order to preserve existing trees.
- b. A landscaped median island must be a minimum of 8 feet wide.
- c. Landscaped median islands may be installed below the level of the parking lot surface to allow for runoff capture.
- d. Any trees planted in landscaped median islands must be canopy trees unless the median is designed as a bioretention basin in accordance with Sec. 3.11.4.3.

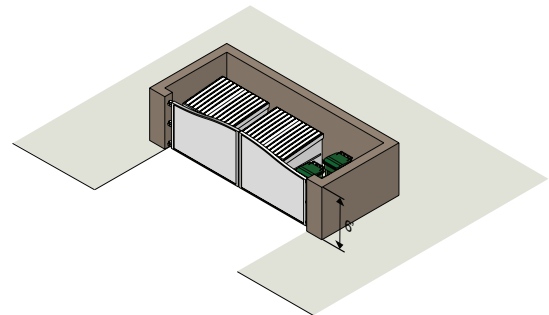
- 5. **Sidewalks in Medians.** Where a sidewalk is added to a median, additional median width equal to the sidewalk width must be provided.

- 6. **Trees.** No parking space may be farther than 75 feet from the trunk of a tree.

- D. **Frontages.** Frontages must be planted in accordance with the Design Manual. Tree planting zones without grates must be a minimum of 8 feet in width. Tree planting zones with grates must be a minimum of 6 feet in width. Tree planting zones must be installed using structural soils, as described in the Design Manual. Tree maintenance and replacement is the responsibility of the property owner.

E. Service Area and Mechanical Screening

- 1. **Applicability.** All new service areas and the installation of new mechanical equipment must provide screening in accordance with Section 3.11.4.2.
- 2. **Service Areas**
 - a. Trash and recycling collection and other similar service areas must be located to the side or rear of buildings.
 - b. Service areas must be screened on 3 sides by a wall a minimum 6 feet in height and on the 4th side by a solid gate at a minimum of 6 feet in height.



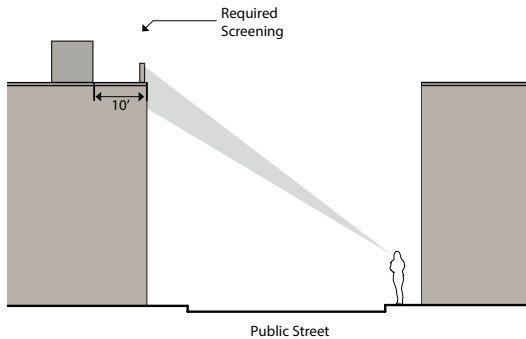
- c. The wall must be opaque and be constructed of high quality materials including one or a combination of the following: decorative blocks; brick; stone; cast-stone; split-faced block; stucco over standard concrete masonry blocks; glass block; or other material approved by the Town Manager.
- d. The gate and wall must be maintained in good working order and must remain closed except when trash pick-ups occur.

3. Roof-Mounted Equipment

- a. Roof-mounted equipment must be set back at least 10 feet from the edge of the roof

and screened from ground level view from abutting property or abutting public street (not including an alley).

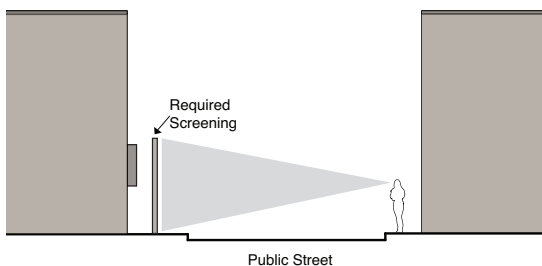
- b. Buildings must provide a parapet wall or other architectural element that is compatible with the principal building in terms of texture, quality, material and color that fully screens roof-mounted equipment from ground level view.



- c. The Town Manager may modify these standards to ensure effective equipment functionality and ventilation.

4. **Wall-Mounted Equipment.** It is the intent of this section that aboveground mechanical equipment and minor structures accessory to utilities, excluding equipment and structures necessary for life safety, shall be minimally visible and minimally encroach into the pedestrian path.

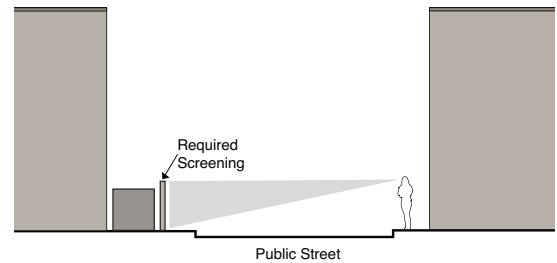
- a. Wall-mounted equipment located on any surface that is visible from a public street (not including an alley) must be fully screened by landscaping or a wall or fence that cannot be seen through, and that is compatible with the principal building in terms of texture, quality, material and color.
- b. Screening must be of a height equal to or greater than the height of the mechanical equipment being screened.



- c. The Town Manager may modify these standards to ensure effective equipment functionality and ventilation.
- d. Unless otherwise approved as a permitted setback encroachment in Section 3.11.2.7, wall-mounted mechanical equipment and minor structures accessory to utilities, excluding equipment and structures necessary for life safety, shall not be placed within 10' of a sidewalk for a Type A or Type B frontage.

5. **Ground-Mounted Equipment.** It is the intent of this section that aboveground mechanical equipment and minor structures accessory to utilities, excluding equipment and structures necessary for life safety, shall be minimally visible and minimally encroach into the pedestrian path.

- a. Ground-mounted mechanical equipment that is visible from a public street (not including an alley) must be fully screened by landscaping or a wall or fence that cannot be seen through, and that is compatible with the principal building in terms of texture, quality, material and color.
- b. Screening must be of a height equal to or greater than the height of the mechanical equipment being screened.



- c. The Town Manager may modify these standards to ensure effective equipment functionality and ventilation.
- d. Unless otherwise approved as a permitted setback encroachment in Section 3.11.2.7, ground-mounted mechanical equipment and minor structures accessory to utilities, excluding equipment and structures necessary for life safety, shall not be placed within 10' of a sidewalk for a Type A or Type B street frontage.

F. **Street Trees.** Street trees may be required in conformance with Sec. 3.11.2.5.

G. **Fence and Walls**

1. **Applicability.** All new fence and walls must be installed in accordance with Section 3.11.4.2.
2. **Standards**
 - a. Fences and walls may be placed up to the property line, and any posts or supporting rails must face inward toward the property being fenced.
 - b. A wall or fence located in a front setback, not used for a required screen, cannot be more than 6 feet height. The opacity of the wall or fence above 4 feet in height must exceed 75%.
 - c. A wall or fence located in a side interior or rear setback cannot be more 8 feet in height.
 - d. Walls must be constructed of high quality materials including one or a combination of the following: decorative blocks; brick; stone; cast-stone; split-faced block; stucco over standard concrete masonry blocks; glass block; or other material approved by the Town Manager.
 - e. Fences must be constructed of high quality materials including one or a combination of the following: wood, composite fencing; wrought iron, steel, aluminium, PVC vinyl; or other material approved by the Town Manager.
 - f. No wall or fence may be located within any required drainage or utility easement.
 - g. Barbed wire or concertina wire is not permitted.
 - h. Chain-link fences are not permitted in any front setback.

H. **Residential Protection Buffer.** The following buffer is required along any perimeter lot line that immediately abuts any residential district that is not within a Blue Hill Form District. This standard does not apply to residential land that is separated from the Blue Hill Form District by a street.



Depth (min)	10'
Wall Height (min/max)	6'/8'
Fence Height (min/max)	6'/8'
Spacing of breaks in Wall or Fence (max)	200'
Shade Trees (min per 100')	4
Understory Trees (min per 100')	3
Shrubs (min per 100')	40
Shrub Height (min)	4'

1. The Community Design Commission may approve a variation to the requirements above in order to accommodate trails and outdoor amenities in the Buffer area.
 2. Either a wall or a fence may be used in the Buffer, with intermittent breaks so as not to create an impassible barrier, as appropriate based on context.
 3. Buildings within 20' of the perimeter lot line are subject to mass variation standards as described in Sec. 3.11.2.7.T
- I. **Plant Installation and Maintenance.** All plants and trees must be maintained and installed in accordance with in the Town of Chapel Hill Design Manual.

3.11.4.3. Stormwater Management

- A. Authority.** This section is adopted pursuant to the authority vested in the Town of Chapel Hill by the Session Laws and the General Statutes of North Carolina and the authority referenced in Section 1.2 of the Land Use Management Ordinance.
- B. Purpose.** The purpose of this Section is to establish minimum stormwater performance criteria, management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within this jurisdiction. This section seeks to meet that purpose through the following objectives:
1. Minimize increases in stormwater runoff from any development in order to reduce flooding, siltation and streambank erosion and maintain the integrity of stream channels;
 2. Minimize increases in non-point source pollution caused by stormwater runoff from development that would otherwise degrade local water quality;
 3. Minimize the total volume of surface water runoff that flows from any specific site during and following development in order to replicate the pre-development hydrology to the maximum extent practicable;
 4. Reduce stormwater runoff rates and volumes, soil erosion and non-point source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety; and
 5. Meet the requirements of the National Pollutant Discharge Elimination System (NPDES Phase 2) regulations as established by the Clean Water Act and administered by the North Carolina Department of Natural Resources, or its successor agency.
 6. Control nonpoint and point source pollution associated with new development and redevelopment and help protect the water supply uses of Jordan Lake.

C. Applicability.

1. This section applies to all new development and redevelopment projects for which a form district permit is required. No development or redevelopment for which a form district permit is required pursuant to this section shall occur except in compliance with the provisions, conditions, and limitations of the permit.
2. Projects that disturb less than ½-acre of land, including cumulative disturbance are exempt from subsection 3.11.4.3.F.4.

D. Design Manual and Standard Details

1. The Town shall use the policy, criteria, and information, including technical specifications and standards in the Town's "Design Manual and Standard Details" and the July 2007 publication of the "Stormwater Best Management Practices Manual," as amended, published by the North Carolina Department of Environment and Natural Resources' Division of Water Quality, as the basis for stormwater review decisions and for determining the proper design, implementation and performance of engineered stormwater controls and other practices for compliance with this section.
2. If the specifications or guidelines of either design manual are more restrictive or apply a higher standard than the other, or other laws or regulations, the more restrictive specifications or guidelines apply.
3. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the design manuals, the applicant shall have the burden of demonstrating that the practices will satisfy the minimum water quality performance standards of this section. The town manager shall require the applicant to provide the documentation, calculations, and examples necessary for the town manager to determine whether such an affirmative showing is made.

E. Application Requirements

1. Unless otherwise exempted by this Section, every permit application for development must be accompanied by a stormwater impact statement in order for the permit application to be considered.

2. The Town Manager shall prescribe the forms and information that shall be submitted to determine compliance with this chapter, with sufficient copies for necessary referrals and records.

F. Design and Performance Standards. The following are required stormwater management performance criteria:

1. Stormwater treatment shall be designed to achieve average annual 85% total suspended solids (TSS) removal and must apply to the volume of post-development runoff resulting from the first one-inch of precipitation. Alternative treatment methods to achieve 85% average annual TSS removal may be acceptable. The 85% requirement applies to 85% of the additional suspended solids that are the result of the new development.
2. The stormwater runoff volume leaving the site post-development shall not exceed the stormwater runoff volume leaving the site pre-development (existing conditions) for the local 2-year frequency, 24-hour duration storm event for all development. This may be achieved by hydrologic abstraction, recycling and/or reuse, or any other accepted scientific method.
3. The stormwater runoff rate leaving the site post-development shall not exceed the stormwater runoff rate leaving the site pre-development (existing conditions) for the local 1-year, 2-year, and 25-year 24-hour storm events.
4. Notwithstanding subsection 3.11.4.3.F.1., the minimum impervious area treated for eighty-five (85) percent average annual TSS removal shall be fifty (50) percent of the post construction total impervious area.

G. Post-Construction Requirements

1. Inspection, Operation and Maintenance Plan

- a. The owner or owners of a development must sign and record an inspection, operation, and maintenance plan that shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the stormwater management facility. Until the transference of all property, sites, or lots served by the engineered stormwater controls and practices, the original owner or owners, shall have primary responsibility for

carrying out the provisions of the maintenance agreement.

- b. The inspection, operation, and maintenance plan shall require the owner or owners, to maintain, repair and, if necessary, reconstruct the stormwater management facility and shall state the terms, conditions, and schedule of maintenance for the stormwater management facility. In addition, it shall grant to the Town of Chapel Hill the right of entry in the event that the town manager has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the stormwater management facility; however, in no case shall the right of entry, of itself, confer an obligation on the town to assume responsibility for the stormwater management facility.
 - c. The inspection, operation, and maintenance plan must be approved by the town manager prior to permit approval and shall be recorded with the county register of deeds prior to issuance of a certificate of occupancy.
2. Upon completion of a project and before a certificate of occupancy shall be granted, all of the documents enumerated below must be submitted to the Town Manager and a final stormwater management inspection must be scheduled. After performing the final inspection and reviewing and approving the documents, the Town Manager will issue an approval notification to the Town's Inspections Division.
 - a. A copy of the recorded stormwater facility and maintenance easement, signed and sealed by a registered North Carolina professional land surveyor and recorded by the county register of deeds, showing the "Stormwater Management Facility and Maintenance Easements", the stormwater management facilities, and the maintenance access locations. For purposes of maintenance, the maintenance access must be shown on the exhibit and extend from the "Stormwater Facility Easement" to the nearest public right-of-way. The following notes must be included on the recorded final plat or easement exhibit.
 - i. All engineered stormwater management control, treatment, and conveyance structures located on or below the ground

- shall be wholly contained within an easement entitled: "Reserved Stormwater Facility Easement Hereby Dedicated" and shall be reserved from any development which would obstruct or constrict the effective management, control, and conveyance of stormwater from or across the property, other than the approved design and operation functions.
- ii. The reserved stormwater facility and maintenance easements and the facilities they protect are considered to be private, with the sole responsibility of the owner to provide for all required maintenance and operations as approved by the Town Manager except as noted in Sec. I. below.
 - iii. The reserved stormwater facility and maintenance easements and the inspections, operations, and maintenance plan are binding on the owner, heirs, successors, and assigns.
- b. A copy of the recorded inspection, operation, and maintenance plan signed by the owner and recorded by the county register of deeds, for the stormwater management facilities. The inspection, operations, and maintenance plan must include a description and details of the device or structure, an inspections checklist, and operating and maintenance procedures. The plan should identify contact information, who will perform the inspections, frequency of inspections, inspections and maintenance logs, any specific equipment needs or certifications (e.g., confined space certification), action levels or thresholds (e.g., remove sediment after depth exceeds 1 foot), and disposal methods. The person responsible for the maintenance of stormwater management facilities shall submit an annual inspection report to the Town.
 - c. Certified as-built plans signed and sealed by qualified registered North Carolina professional engineer, showing final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed.
 - d. Certified final survey signed and sealed by a registered North Carolina professional land surveyor, showing building footprints, driveways, all other impervious surfaces, stormwater drainage/conveyance piping, and stormwater management structures. The survey should be in DXF binary format using state plane coordinates and NAVD 88.
 - e. Certification, signed and sealed by a qualified registered North Carolina professional engineer, that the stormwater management facilities were constructed in accordance with the approved plans and specifications.
3. **Annual inspection.** An original inspection report shall be provided to the town beginning 1 year from the date of the recorded inspection, operation, and maintenance plan and each year thereafter on or before that date of recordation.
 - H. The Ephesus/Church Fordham Municipal Service District (MSD) through the Town's departments, agencies, officers, employees, consultants, contractors or agents may assist with meeting the inspection and maintenance requirements as provided in the service district plan and provided for in right of entry agreements with the property owners and responsible parties. The MSD may also provide the financial assurance required for issuance of certificate of occupancy upon approval of the Town Manager.
 - I. **Failure to maintain practices.** If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the Town, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, or is otherwise not functioning as designed, the Town shall notify the party responsible for maintenance of the stormwater management facility in writing. Upon receipt of that notice, the responsible person shall have 30 days to effect maintenance and repair of the facility in an approved manner. After proper notice, the town may assess the owners of the facility for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed

on the tax bill and collected as ordinary taxes by the County.

3.11.4.4. Reserved

- J. **Variations.** Persons who wish to undertake uses and activities prohibited by this section may pursue a variance. The procedures for requesting a variance from the requirements of this section shall be as follows:
1. The procedures for requesting a variance from the requirements in this subsection are contained in Section 4.12 of the Land Use Management Ordinance.

3.11.4.5. Site Lighting

A. Applicability

1. **General.** No building or land, or any part of any building or land, may be occupied or used until site lighting has been provided in accordance with this Section.
 - a. The installation of site lighting, replacement of site lighting, and changes to existing light fixture wattage, type of fixture, mounting, or fixture location must be made in compliance with Section 3.11.4.5. Routine maintenance, including changing the lamp, ballast, starter, photo control, fixture housing, lens and other required components, is permitted for all existing fixtures.
 - b. This following site lighting requirements do not apply to lighting installed in the public right-of-way.
2. **Additions**
 - a. When a building or site is renovated, any new or replaced outdoor light or lighting fixture must conform to the requirements of Section 3.11.4.5.
 - b. When the gross floor area or improved site area is increased, the additional floor or site area must conform to the lighting requirements of Section 3.11.4.5.
 - c. When the gross floor area or improved site area is increased by more than 50% cumulatively, both the existing use and the additional floor or site area must conform to the lighting requirements of Section 3.11.4.5.
3. **Change in Use.** A change in use does not trigger application of this Section.

B. Light Level Measuring

1. Light levels are specified, calculated and measured in footcandles. All footcandles values are maintained footcandles.
2. Measurements are to be made at ground level, with the light-registering portion of the meter held parallel to the ground pointing up.

C. Prohibited Sources.

The following light fixtures and sources cannot be used:

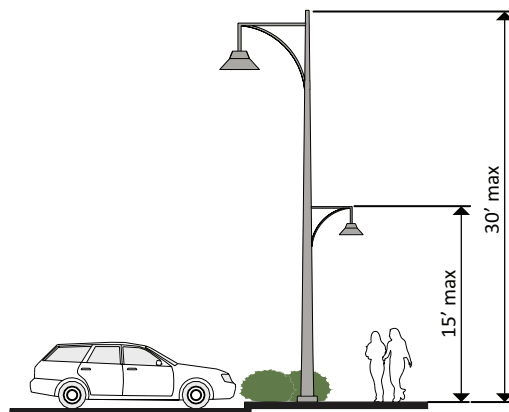
1. Cobra-head-type fixtures having dished or drop lenses or refractors, which contain sources that are not incandescent;
2. Temporary searchlights and other high-intensity narrow-beam fixtures; and
3. Light sources that lack color correction or do not allow for uniform site lighting.

D. Design and Installation Requirements

1. The maximum light level of any light fixture cannot exceed 5.0 footcandles measured at the back of curb in relation to a street.
2. Where the Blue Hill Form District adjoins a residential district, the maximum light level of any light fixture cannot exceed 2.0 footcandles measured at that property line.
3. Lighting must not be oriented onto adjacent properties, streets or sidewalks.
4. Service connections for all freestanding lighting fixtures must be installed underground.

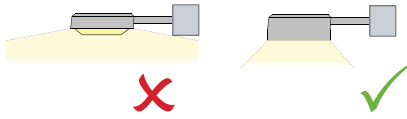
E. Parking and Pedestrian Areas

1. Light fixtures within parking and vehicular display areas may be no higher than 30 feet.
2. Light fixtures within pedestrian areas may be no higher than 15 feet.

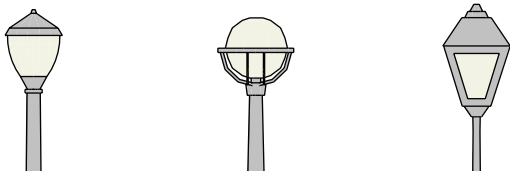


3. Light fixtures located within 50 feet of the property line of a residential district may be no higher than 15 feet.
4. Light fixtures within 25 feet of a street right-of-way (not including an alley) must be forward throw fixtures.

- All light fixtures must be full cutoff, except as listed in paragraph 6. below.

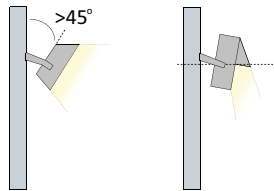


- Non-cutoff (unshielded) fixtures can be used when the maximum initial lumens generated by each fixture is less than 9500 initial lamp lumens. These fixtures generally feature globes or vertical glass planes and must be coated with an internal white frosting to diffuse light.

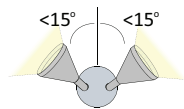


F. Flood Lights and Flood Lamps

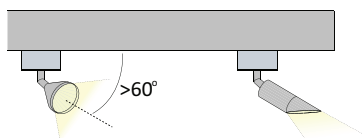
- Flood light fixtures must either be aimed down at least 45 degrees from vertical, or the front of the fixture shielded so that no portion of the light bulb extends below the bottom edge of the shield.



- Any flood light fixture located within 50 feet of a street right-of-way must be mounted and aimed perpendicular to the right-of-way, with a side-to-side horizontal aiming tolerance not to exceed 15 degrees.

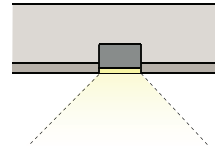


- All flood lamps emitting 1,000 or more lumens must be aimed at least 60 degrees down from horizontal, or shielded so that the main beam is not visible from adjacent properties or the street right-of-way.

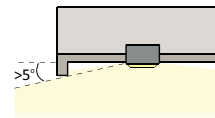


- Vehicular Canopies.** Lighting under vehicular canopies must be less than 24 maintained footcandles, and be designed to prevent glare off-site. Acceptable lighting designs include the following:

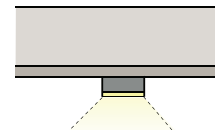
- Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface of the canopy;



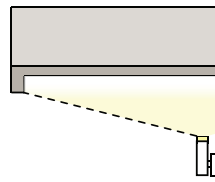
- Light fixture incorporating shields, or is shielded by the edge of the canopy itself, so that light is restrained to 5 degrees or more below the horizontal plane;



- Surface mounted fixture incorporating a flat glass that provides a cutoff design or shielded light distribution; or



- Indirect lighting where light is beamed upward and then reflected down from the underside of the canopy, provided the fixture is shielded so that direct illumination is focused exclusively on the underside of the canopy.



H. Building Lighting

1. Lighting fixtures must be selected, located, aimed, and shielded so that direct illumination is focused exclusively on the building façade, plantings, and other intended site features and away from adjoining properties and the street right-of-way.
2. All wall pack fixtures must be full cutoff fixtures.



3. Only lighting used to accent architectural features, landscaping or art may be directed upward, provided that the fixture is located, aimed or shielded to minimize light spill into the night sky.

3.11.4.6. Outdoor Display & Storage

A. **Applicability.** The following requirements apply to any site where merchandise, material or equipment is stored outside of a completely enclosed building.

B. Outdoor Display

1. Defined

- a. Outdoor display is the outdoor display of products actively available for sale that are placed inside a fully-enclosed building at the end of each business day.
- b. Outdoor display includes the outdoor placement of propane gas storage racks, ice storage bins, soft drink or similar vending machines is considered outdoor display

2. **Standards.** Outdoor display is permitted in association with any permitted nonresidential principal ground floor use in accordance with the following provisions:

- a. Outdoor display visible from a street must be removed and placed inside a fully-enclosed building at the end of each business day, except propane gas storage racks, ice storage bins, soft drink or similar vending machines may remain outside overnight.
- b. Outdoor display is permitted adjacent to the primary façade with the principal customer entrance, but cannot extend more than 8 feet from the façade and occupy no more than 30% of the horizontal width of the façade.
- c. Outdoor display cannot impair the ability of pedestrians to use the sidewalk or parking areas and must comply with ADA clearance and accessibility.

C. Limited Outdoor Storage

1. **Defined.** Limited outdoor storage includes, but is not limited to:

- a. Outdoor sale areas for sheds, building supplies, garden supplies, plants, lawn movers, barbecues and other similar items; and
- b. The outdoor storage of merchandise or material in boxes, in crates, on pallets or other kinds of shipping containers.

2. **Standards.** Limited outdoor storage may not be more than 12 feet in height and must be fully

screened from view from the public right-of-way and abutting properties.

D. General Outdoor Storage

1. **Defined.** General outdoor storage includes, but is not limited to:

- a. The outdoor storage of contractors equipment;
- b. The outdoor storage of fleet vehicles; and
- c. The outdoor storage of soil, mulch, stone, lumber, pipe, steel, salvage, junk or recycled materials, and other similar merchandise, material or equipment.

2. **Standards.** General outdoor storage is not permitted in a Form District.