

Article 7 | Design Standards

Sec. 7.1 Housing Types

Commentary: The following housing types are established to provide a common terminology for housing in Durham. The choices include a variety of housing types, some of which may not be currently found in Durham, to provide for their potential use in the future. These housing types do not apply to the DD District, where all uses, including residential, shall comply with Sec. 6.12.2D, Frontage and Building Types. All drawings in this section are for illustrative purposes only.

7.1.1 In General

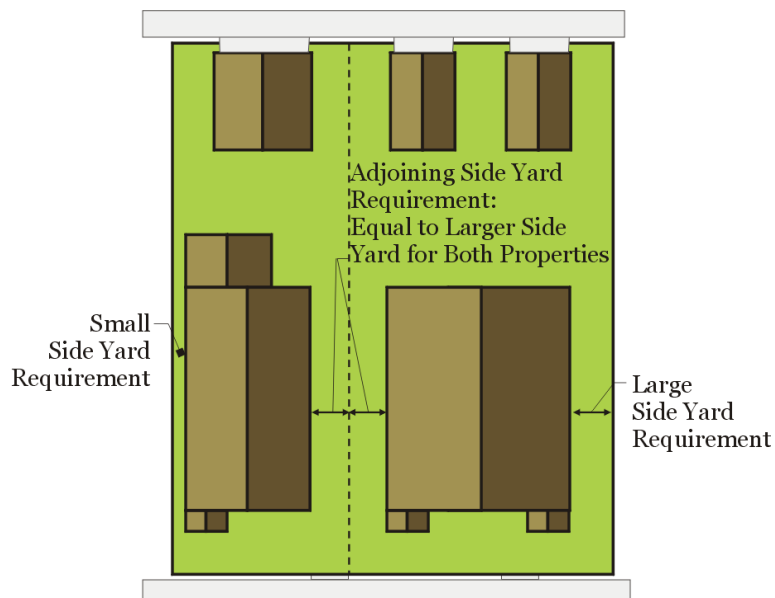
Commentary: All residential uses shall meet Durham Housing Code requirements as set forth in Chapter 10, Buildings and Building Regulations* of the Durham City Code.

A. Condominium Development

Condominiums shall be recorded in compliance with the North Carolina Condominium Act (NCGS §47C).

B. Yard Standards on Blocks with Mixed Housing Types

Where housing types are mixed on the same block face and adjacent to one another, the larger of the two adjoining required side yards shall be required for both units.



Commentary: This ensures that single-family detached homes abutting other housing types, such as townhouses or zero lot line units, are adequately protected.

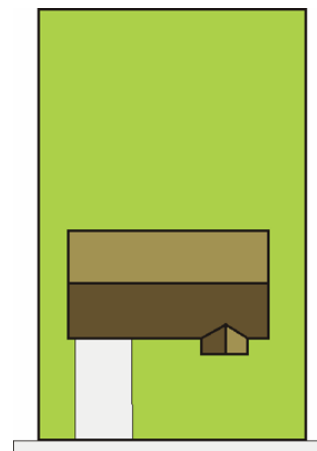
7.1.2 Single-Family Detached House

A. Description

A single-family detached house is normally located on a privately-owned lot with yards on all four sides of the house. Vehicular access may take place from the front, side, or rear of the lot.

B. Development Standards

A single-family detached house shall be permitted in accordance with the table below. A single-family detached house shall also be permitted in the RR District in accordance with the standards of Sec. 6.2.1A, Dimensional Standards.



Single-Family Detached Standards	RS-20	RS-10	RS-8	RS-M	RU-5, RU-5(2)	RU-M	RC
Conventional Subdivision							
Lot Dimensions (min. square feet)							
Lot Area (w/o averaging.)	20,000	10,000	8,000	5,000	5,000	3,500	5,000
Lot Area (with averaging) ¹	17,000	8,500	6,800	4,250	4,250	2,975	4,250
Lot Width (feet)	100	75	60	35	45	35	35
Yards (min. feet) ²							
Street Yard (adjoining collector or greater street)	35	25	25	25	20	15 ³	10 ³
Street Yard (adjoining local street)	35	25	25	20	20	15 ³	10 ³
Street Yard (with rear vehicular or alley access)	5	5	5	5	5	5	5
Side Yard (single)	12	10	9	6	6	6	6
Side Yard (total)	30	24	22	15	15	15	15
Rear Yard	25	25	25	25	25	25	25
Cluster Subdivision							
Lot Dimensions (min.)							
Lot Area (square feet)	10,000	5,000	4,000	---	3,500	---	---
Lot Width (feet)	75	40	40	---	40	---	---
Yards (min. feet)							
Street Yard	25	20	20	---	15 ³	---	---
Street Yard (with rear vehicular or alley access)	5	5	5	---	5	---	---
Side Yard (single)	9	6	6	---	5	---	---
Side Yard (total)	22	13	13	---	12	---	---
Rear Yard	25	25	25	---	25	---	---

¹ Lot area with averaging may only be used if the requirements of Sec. 6.3.3C, Lot Averaging, Sec.6.4.3C, Lot Averaging, Sec.

6.5.3C, Lot Averaging, as appropriate are met.

² Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

³ Shall be 20 feet with front-loaded vehicular access or driveways.

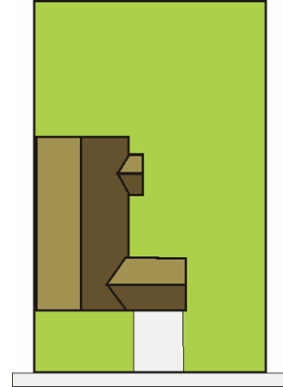
7.1.3 Zero Lot Line House

A. Description

A zero lot line house is positioned on one lot line without any setback, with private yards on the other three sides of the building including a wider side yard on one side

B. Development Standards

A zero lot line house shall be permitted in accordance with the table below.



Zero Lot Line House Standards	RS-10	RS-8	RS-M	RU-5, RU-5(2)	RU-M	RC
Conventional Subdivision						
Lot Dimensions (min. square feet)						
Lot Area (w/o averaging)						
Lot Area (with averaging) ¹	10,000	8,000	5,000	5,000	3,500	5,000
Lot Width (feet)	8,500	6,800	4,250	4,250	2,975	4,250
	75	60	35	45	35	35
Yards (min. feet) ²						
Street Yard (adjoining collector or greater street)	25	25	25	20	15 ³	10 ³
Street Yard (adjoining local street)	25	25	20	20	15 ³	10 ³
Street Yard (with rear vehicular or alley access)	5	5	5	5	5	5
Side Yard (single)	0	0	0	0	0	0
Side Yard (total)	20	18	12	12	12	12
Rear Yard	25	25	25	25	25	25
Cluster Subdivision						
Lot Dimensions (min.)						
Lot Area (square feet)	5,000	4,000	---	3,500	---	---
Lot Width (feet)	40	40	---	40	---	---
Yards (min. feet)						
Street Yard	20	20	---	15 ³	---	---
Street Yard (with rear vehicular or alley access)	5	5	---	5	---	---
Side Yard (single)	0	0	---	0	---	---
Side Yard (total)	12	12	---	10	---	---
Rear Yard	25	25	---	25	---	---

¹ Lot area with averaging may only be used if the requirements of Sec. 6.3.3C, Lot Averaging, Sec. 6.4.3C, Lot Averaging, Sec. 6.5.3C, Lot Averaging, as appropriate are met.

² Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

³ Shall be 20 feet with front-loaded vehicular access or driveways.

C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

D. Designation on Plat

The subdivision shall be designated as a zero lot line subdivision on the plat at the time of approval.

E. Easement

Easement agreements shall be recorded to allow maintenance and access for that side of the dwelling adjacent to the property line.

F. Privacy

1. On the property line that the structure is built to, a privacy fence or wall at least six feet high is required between lots, to the rear of the structure.
2. If the side wall of the house is located on or within three feet of the property line, windows or other openings that allow for visibility into the side yard of the adjacent lot shall not be allowed. Windows that do not allow visibility into the side yard of the adjacent lot, such as a clerestory window or a translucent window, shall be allowed.

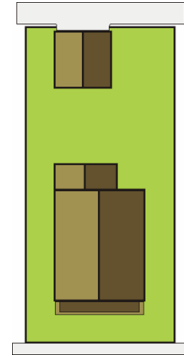
7.1.4 Traditional House

A. Description

A traditional house is a single-family detached house that is set closer to the street than a conventional single family detached house and takes vehicular access from the rear. It has private yards on each side of the building.

B. Development Standards

A traditional house shall be permitted in accordance with the table below.



Traditional House Standards	RU-5, RU-5(2)	RU-M	RC
Conventional Subdivision			
Lot Dimensions (min. square feet)			
Lot Area (w/o averaging)	5,000	3,500	5,000
Lot Area (with averaging) ¹	4,250	2,975	4,250
Lot Width (feet)	45	35	35
Yards (min. feet) ²			
Street Yard	10	10	10
Street Yard (with rear vehicular or alley access)	5	5	5
Side Yard (single)	6	6	6
Side Yard (total)	15	15	15
Rear Yard	25	25	25
Cluster Subdivision			
Lot Dimensions (min.)			
Lot Area (square feet)	3,500	---	---
Lot Width (feet)	35	---	---
Yards (min. feet)			
Street Yard	8	---	---
Street Yard (with rear vehicular or alley access)	5	---	---
Side Yard (single)	5	---	---
Side Yard (total)	12	---	---
Rear Yard	25	---	---

¹ Lot area with averaging may only be used if the requirements of Sec. 6.4.3C, Lot Averaging, and Sec. 6.5.3C, Lot Averaging, as appropriate, are met.

² Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

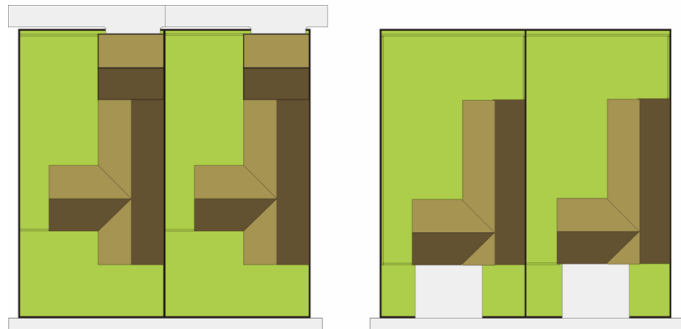
C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

7.1.5 Patio House

A. Description

The patio house is a single-family detached house similar to a zero lot line house that is placed on a small lot. Due to the modest area of the lot, the rear and side yard patio may be enclosed by a wall, while still preserving a narrow street yard.



B. Development Standards

A patio house shall be permitted in accordance with the table below.

Patio House Standards	Suburban	Urban and Compact Neighborhood
Site Area (min. square feet)		
Per Group	25,000	25,000
Per Dwelling Unit	3,000	3,000
Lot Dimensions (min.)		
Lot Width (feet)	35	35
Yards (min. feet)		
Street Yard	25 ^{1,2}	12 ¹
Street Yard with Front Vehicular Access (from ROW)	25 ^{1,3}	20 ¹
Street Yard with Rear Vehicular Access (from alley)	5	5
Rear Yard	25	25
Building Separation	10	10
Patio (min.)		
Area (square feet)	1,000	1,000
Width (feet)	20	20

¹ Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

² Yards may be reduced to as little as 12 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

³ Front vehicular access may be reduced to as little as 20 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

D. Privacy

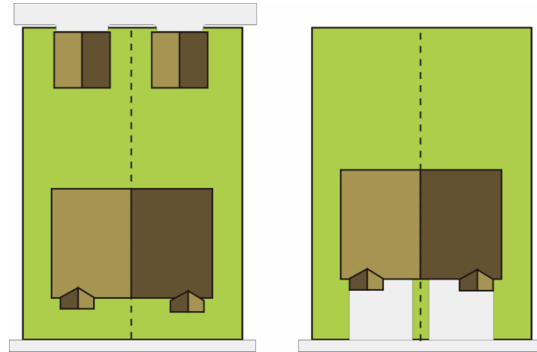
1. On the property line that the structure is built to, a privacy fence or wall at least six feet high shall be required between lots, to the rear of the structure.

- 2.** If the side wall of the house is located on or within three feet of the property line, windows or other openings that allow for visibility into the side yard of the adjacent lot shall not be allowed. Windows that do not allow visibility into the side yard of the adjacent lot, such as a clerestory window or a translucent window, shall be allowed.

7.1.6 Semi-Attached House

A. Description

A semi-attached house is a single-family house with a shared common wall along one of the lot lines that separates the two lots.



B. Development Standards

A semi-attached house shall be permitted in accordance with the table below.

Semi-Attached House Standards	Suburban	Urban and Compact Neighborhood
Site Area (min. square feet)		
Per Building	7,000	7,000
Per Dwelling Unit	3,000	3,000
Lot Dimensions (min.)		
Lot Width (feet)	35	35
Yards (min. feet)		
Street Yard	25 ^{1,2}	15 ¹
Street Yard with Front Vehicular Access (from ROW)	25 ^{1,3}	20 ¹
Street Yard with Rear Vehicular Access (from alley)	5	5
Side Yard (on unattached side)	8	8
Rear Yard	25	25

¹ Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

² Yards may be reduced to as little as 15 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

³ Front vehicular access may be reduced to as little as 20 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

7.1.7 Duplex

A. Description

A duplex is a two-family dwelling in a single structure on a single lot. Individual units may be located on separate floors or side-by-side.



B. Development Standards

A duplex shall be permitted in accordance with the table below.

Duplex Standards	Suburban	Urban and Compact Neighborhood
Site Area (min. square feet) Per Dwelling Unit	3,750	3,500
Lot Dimensions (min.) Lot Width (feet)	60	50
Yards (min. feet)		
Street Yard	25 ^{1,2}	15 ¹
Street Yard with Front Vehicular Access (from ROW)	25 ^{1,3}	20 ¹
Street Yard with Rear Vehicular Access (from alley)	5	5
Side Yard	8	8
Rear Yard	25	25

¹ Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).
² Yards may be reduced to as little as 15 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.
³ Front vehicular access may be reduced to as little as 20 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

7.1.8 Townhouse

A. Description

A townhouse is a building made up of three or more attached units where the units are lined up in a row and share side walls.



B. Development Standards

1. A townhouse shall be permitted in accordance with the table below.

Townhouse Standards	Suburban	Urban and Compact Neighborhood
Yards (min. feet)		
Street Yard	25 ^{1,2}	12 ¹
Street Yard with Front Vehicular Access (from ROW)	25 ^{1,3}	20 ¹
Street Yard with Rear Vehicular Access (from alley)	5	5
Distance between Building and Shared Parking	12	12
Rear Yard	20	20
Building Separation	10	10

¹ Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

² Yards may be reduced to as little as 12 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

³ Front vehicular access may be reduced to as little as 20 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

2. In order to provide visual diversity, no more than four contiguous townhouse units shall be allowed with the same setback and the same facade treatment. Variations in setback shall be at least three feet. Townhouses in a Historic District and Landmarks Overlay may be exempted from this requirement with the approval of the Historic Preservation Commission.

C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

D. Privacy

Townhouses shall have a front, side, or rear privacy yard having a minimum area of 100 square feet on each lot.

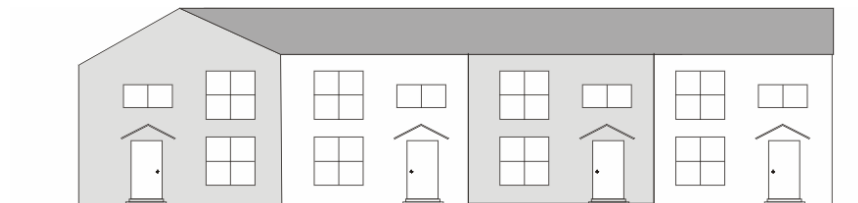
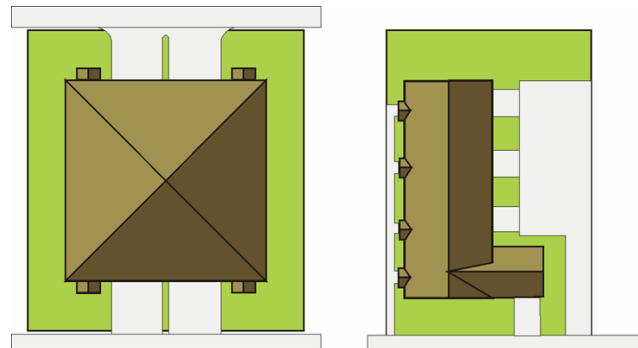
E. Residential Protection

Common recreation areas, such as a clubhouse, swimming pool, and/or tennis, volleyball, or basketball courts, shall be oriented internally or along major roadways, and away from residential development on neighboring properties. All such facilities shall be visible from and have substantial access to a street.

7.1.9 Multiplex

A. Description

A multiplex is three or four individual units consolidated into a single structure using common walls on a single lot. Individual units may be located on separate floors or side-by-side. Parking is often shared in a single consolidated area, even when garages and carports are used.



MULTIPLEX
 Units are Attached but not Vertically Mixed

B. Development Standards

A multiplex shall be permitted in accordance with the table below.

Multiplex Standards	Suburban	Urban and Compact Neighborhood
Lot Dimensions (min.)		
Lot Width (feet)	70	70
Yards (min. feet)		
Street Yard	25 ^{1,2}	15 ¹
Street Yard with Front Vehicular Access (from ROW)	25 ^{1,3}	20 ¹
Street Yard with Rear Vehicular Access (from alley)	5	5
Distance between Building and Parking Lot	12	12
Rear Yard	10	10
Building Separation	10	10

¹ Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

² Yards may be reduced to as little as 12 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

³ Front vehicular access may be reduced to as little as 20 feet if the structures are located interior to a project and do not front on a street classified as a collector or greater.

C. Access

Where a developed alley is provided, all vehicular access shall be taken from the alley.

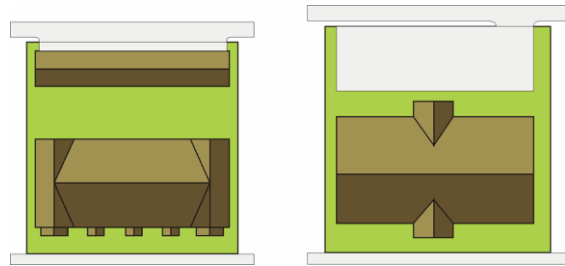
D. Residential Protection

Common recreation areas, such as a clubhouse, swimming pool, and/or tennis, volleyball, or basketball courts, shall be oriented internally or along major roadways, and away from residential development on neighboring properties. All such facilities shall be visible from and have substantial access to a street.

7.1.10 Apartment

A. Description

An apartment is a multifamily structure(s) on a single tract or parcel of land containing three or more units. Apartments may vary in height; the individual units may be located on separate floors or side-by-side. Parking is often shared in a consolidated area, even when garages and carports are used.



Units are Attached and Vertically Mixed

B. Development Standards

Apartments shall be permitted in accordance with the table below.

Apartment Standards	
Lot Dimensions	
Lot Width (min. feet)	75
Yards (min. feet)	
Street Yard ¹	25
Street Yard with Rear Vehicular Access (from alley)	5
Distance between Building and Parking Lot	12
Side Yard	8
Rear Yard	25
Building Separation	10

¹ Yard modifications may be required pursuant to an adopted corridor study, a neighborhood protection overlay, or through application of infill regulations (Sec. 6.8, Infill Development in Residential Districts).

C. Residential Protection

Common recreation areas, such as a clubhouse, swimming pool, and/or tennis, volleyball, or basketball courts, shall be oriented internally or along major roadways, and away from residential development on neighboring properties. All such facilities shall be visible from and have substantial access to a street.

Sec. 7.2 Open Space

7.2.1 Purpose

Open space adds to the visual character and uniqueness of each development and allows for recreational and aesthetic enjoyment by the residents. In the Rural Tier, open space is intended to serve as land preserved for passive enjoyment. In the Suburban and Urban Tiers, improved open space provides centrally located community gathering spots, and play spaces that are integral to the livability of the neighborhoods, while the preservation of natural areas ensures habitat. In the Compact Neighborhood Tier, a limited quantity of open space is required as relief from the intensity of the built environment. Except for Sec. 7.2.6, Ownership and Management of Open Space, the requirements of this section do not apply to conservation subdivisions under Sec. 6.2.4, Conservation Subdivision.

7.2.2 Required Open Space

- A.** Open space shall be required in all districts in accordance with Article 6, District Intensity Standards, except that certain residential developments may make payment in lieu of providing required open space provided that the development:
1. Is not a conservation subdivision under Sec. 6.2.4, Conservation Subdivision;
 2. Is not a cluster subdivision under Sec. 6.7, Cluster Subdivision;
 3. Contains ten or fewer units; and
 4. Contains no engineered stormwater controls.

Payment in lieu of required private open space for recreational purposes under this section is available in addition to payment-in-lieu available under Sec. 12.4, Pedestrian and Bicycle Mobility, and Sec. 12.5, Recreation Land.

- B.** Notwithstanding the above, open space may be required by the approving authority where it determines that the provision of open space would better serve the needs of the future residents of the development than would payment in lieu.
- C.** Payment-in-lieu shall be an amount equivalent to the tax value of the amount of usable property that would have been required for open space. Payments, when authorized, shall be expended within the respective recreation district within which collected.
- D.** In Cluster Subdivisions, the quantity of open space shall be equal to the reduction in total lot area, in addition to the open space required in the zoning districts in Sec. 6.3, Residential Suburban Development Intensity, Sec. 6.4, Residential Urban Development Intensity, or Sec. 6.5, Residential Compact Development Intensity, as applicable.

7.2.3 Use of Required Open Space

- A. Land dedicated per Sec. 12.5, Recreation Land, may be counted towards the open space requirements in all Tiers shown in the table below.
- B. Required open space may consist of any of the following, up to the maximum percent credit shown in the table.

Open Space Use	Maximum% of Total Open Space			
	Rural	Suburban	Urban	Compact
Natural Open Space				
Agriculture, horticulture, silviculture or pasture uses	Up to 100%	Up to 50%	---	---
Naturally vegetated or revegetated to appear naturally vegetated.	Up to 100%	Up to 100%	Up to 100%	Up to 100%
Severe development constraints or other conditions that affect their usability by residents of the development, including properties in the flood fringe, floodway, water bodies, exceptionally low or wet soils, or steep slopes.	Up to 100%	Up to 50%	Up to 100%	Up to 100%
Durham Inventory Sites	Up to 100%	Up to 100%	Up to 100%	Up to 100%
Useable Open Space				
Property developed for active recreational purposes (ballfields, tennis or basketball courts, golf courses, swim clubs, etc.).	Up to 100%	Up to 50%	Up to 50%	Up to 50%
All-weather walking paths, bicycle trails, benches, picnic tables, shelters, gazebos, prepared play areas, play equipment	Up to 100%	Up to 50%	Up to 50%	Up to 50%
Publicly accessible plazas and courtyards	---	---	Up to 100%	Up to 100%
Other Open Space				
Stormwater management and community wastewater disposal systems. Easements for drainage, access and underground utilities	Up to 25%	Up to 25%	Up to 50%	Up to 50%
Tree save areas, project boundary buffers	Up to 100%	Up to 100%	Up to 100%	Up to 100%

7.2.4 Open Space Calculation

- A. Streets, driveways, vehicular use areas and required yard spaces provided for residences may not be counted toward the open space requirement.
- B. **Minimum Dimension**
 1. Within the Compact Neighborhood Tier, a horizontal dimension of at least ten feet shall be the minimum required to be considered open space.
 2. Within the Rural, Suburban, and Urban Tiers, a horizontal dimension of at least 25 feet shall be the minimum required to be considered open space.
- C. Land set aside as open space in residential developments shall be held in common ownership or dedicated to the public rather than platted as part of individual private lots.

7.2.5 Useable Open Space Design

A. General

Useable open space shall constitute at least one-third of the required open space, except in the Rural Tier and for nonresidential development in residential districts, where no useable open space shall be required. Areas designated as useable open space, other than walking paths and bicycle trails, shall have at least one side with street frontage of at least 50 feet in length, and shall be accessible to residential development by sidewalks, pursuant to Article 12, Infrastructure and Public Improvement.

B. Urban Tier

Useable open space shall be located so that 95% of the residential units in the subdivision or development are within a 1,300-foot walking distance of an accessible, useable open space.

C. Suburban Tier

Useable open space shall be located so that 95% of the residential units in the subdivision or development are within a 2,600-foot walking distance of an accessible, usable open space.

7.2.6 Ownership and Management of Open Space

A. Prior to approval of a final plat, a program for continued maintenance of all open space areas shall be submitted. The submission shall include agreements, contracts, deed restrictions, sureties, or other legal instruments acceptable to the City or County, as appropriate, to guarantee the provision and continued maintenance of such common areas and facilities.

B. The open space shall be protected in perpetuity by a binding legal instrument that is recorded with the deed. The instrument shall be one of the following:

1. A permanent conservation easement in favor of either:
 - a. A land trust or similar conservation-oriented non-profit organization with legal authority to accept such easements (the organization shall be *bona fide* and in perpetual existence and the conveyance instruments shall contain an appropriate provision for retransfer in the event the organization becomes unable to carry out its functions). If the entity accepting the easement is not the City or the County, then a third party right of enforcement favoring the City or the County shall be included in the easement; or
 - b. A governmental entity with an interest in pursuing goals compatible with the purposes of this section acceptable to the City or County, as appropriate.
2. A permanent restrictive covenant for conservation purposes in favor of a governmental entity.

3. An equivalent legal tool that provides permanent protection, if approved by the City or County, as appropriate.
 4. Dedication of the land to an established homeowner's association (with legal standing in the property) that accepts permanent maintenance responsibility.
- C.** The instrument for permanent protection shall include clear restrictions on the use of the open space. These restrictions shall include all restrictions contained in this Article, as well as any further restrictions the applicant chooses to place on the use of the open space.
- D.** Open space that has been dedicated to an established homeowner's association may be transferred with a permanent conservation easement to a land trust or similar conservation-oriented non-profit organization with legal authority to accept such easements pursuant to paragraph B.1.a above, if approved by the appropriate governing body.

Sec. 7.3 Design Standards

7.3.1 Facade/Roofline Treatment

- A.** This section applies to all non-industrial facilities with exterior elevations that are greater than 100 feet in total length or diameter and visible from a public right-of-way or from adjacent residential development.
- B.** All applicable structures shall be required to incorporate variations in the facades and roofline in order to ensure visual interest by the following standards:
 - 1.** Incorporate variations in the facade, such as recesses and projections, door and window rhythm, or other architectural detailing. Changes of materials may also be used to meet this requirement so long as materials changes occur at a change of plane, such as a recess, projection, or inside corner; and
 - 2.** Incorporate variations in the roofline treatment, such as stepped parapets, multiple roof forms, dormers, and corner tower elements.

7.3.2 Canopies

A. General Standards

- 1.** Canopies in nonresidential zones may extend into the required yard but shall be at least five feet from any property line and shall not project into any utility easement.
- 2.** Display or storage shall not be permitted as the primary use under the canopy unless outdoor displays and outdoor storage are allowed in the zoning district in accordance with Sec. 7.5, Outdoor Display and Storage.

B. Fuel Canopies

- 1.** The maximum distance to the highest point on the fascia shall be 19-1/2 feet as measured from the highest point of the highest grade under the canopy. No variance may be granted for additional height, except when specialized design characteristics associated with architectural features of the neighborhood would warrant some modification to this standard.
- 2.** All light fixtures mounted in fuel canopies shall be recessed.

Sec. 7.4 Outdoor Lighting

7.4.1 Purpose

The purpose of these standards is to assure that adequate exterior lighting is provided for nonresidential and multi-family developments to facilitate crime prevention, security, and safe passage, and that exterior lights be shielded so that the light cast beyond the property line does not exceed the limits in accordance with these standards.

7.4.2 Applicability

- A.** Adequate lighting shall be provided in nonresidential and multifamily developments conforming to professional engineering standards.
- B.** Parking areas, sidewalks, and building entrances shall be lighted in order to contribute to the security of property and to facilitate the safe passage of persons using the roads, sidewalks, and parking lots after dark. However, measures shall be provided to minimize light spillover onto adjacent properties and glare toward motor vehicle operators. The measures used to minimize the spillover of light and glare shall be indicated on the site plan.
- C.** The following shall be exempt from these provisions:
 - 1.** Outdoor lights used for a temporary event; permitted through a temporary use permit.
 - 2.** Outdoor lights used exclusively for recreational activities, concerts, plays or other outdoor events that are open to the public, provided that the light fixtures are located at least 100 feet from any adjacent residential use and the event or function meets all other applicable zoning requirements. Such lighting shall not be illuminated between the hours of 12:00am and 8 a.m. and between 1:00 a.m. and 8 a.m. Friday and Saturday except in the UC District and the Downtown Tier.
 - 3.** Outdoor lighting exempted pursuant to 1 and 2 above shall only be illuminated while the activity takes place and during high traffic periods immediately before and after the event.

7.4.3 Standards

- A.** All site lighting shall be designed so that the level of illumination as measured in foot-candles (fc) at any one point meets the standards in the table below with minimum and maximum levels measured on the pavement within the lighted area.

Type of Lighting	LIGHT LEVEL (in foot-candles)	
	Minimum At Any Point	Maximum At Any Point
Architectural Lighting	0.0	5.0
Canopy Area Lighting	2.0	24.0
Multifamily Parking Lot	0.5	8.0
Nonresidential and Multifamily Entrances	1.0	15.0
Nonresidential Parking Lot	0.5	10.0
Storage Area (security lighting)	0.5	10.0
Vehicle Sales and Display	0.5	24.0
Walkways, Landscape or Decorative Lighting	0.2	5.0
Exterior Pedestrian Passages (Sec. 6.12.3E.1.e)	0.5	15.0

- B.** The maximum illumination permitted at the edge of a property line shall be as set forth below. Where a development is unified with shared parking or other measures shown on a site plan, the maximum illumination levels shall apply only to the exterior lot lines of the project (any interior lot lines shall be exempt from this paragraph).
1. The maximum illumination at the edge of the property line adjacent to a residential zoning district shall be 0.5 foot-candles.
 2. The maximum illumination at the edge of the property line adjacent to nonresidential zoning district shall be 5.0 foot-candles.
 3. The maximum illumination at the edge of the property line adjacent to a street shall be 5.0 foot-candles.
- C. Adjustments to Maximum Illumination**
 The approving authority may adjust the standards for the maximum illumination at the edge of a property adjacent to a nonresidential use if the approving authority determines that the design and nature of the adjacent use creates a need to either reduce or increase the maximum illumination.
- D. Full-Cutoff Lighting**
 The maximum height for directional or full cut-off lighting fixtures (fixtures designed to ensure that no light is emitted above a horizontal line parallel to the ground) shall be 30 feet above grade.
- E. Non-Directional Lighting**
 The maximum height for non-directional lighting fixtures (fixtures designed to allow light to be emitted above a horizontal line parallel to the ground) shall be 15 feet above grade. Non-directional lighting fixtures shall be translucent or have baffles to

prevent views of the light source. Non-directional lighting fixtures are not recommended for lighting sidewalks, streets, or parking areas. The upward direction of light provided by non-directional lighting may be found to be unacceptable by the approving authority because the off-site effects may be incompatible with the surrounding neighborhood.

Commentary: Non-cutoff lighting fixtures are not recommended for lighting sidewalks, streets, or parking areas. The upward light emitted by non-directional lighting may be found to be unacceptable by the approving authority because the off-site effects may be incompatible with the surrounding neighborhood.

F. Canopy Lighting

Under canopy lighting shall be restricted to lighting fixtures (including lenses) that do not project below the bottom of the canopy.

G. Glare

Lighting shall be oriented not to direct glare or excessive illumination onto streets in a manner that may distract or interfere with the vision of drivers on such streets.

H. Accent Lighting

Lighting fixtures used to accent architectural features, landscaping or art shall be located, aimed or shielded to minimize light spill into the night sky.

I. Blinking or Flashing Lights

Blinking or flashing lights shall be prohibited unless the lights are required as a safety feature (e.g. beacons on towers) or permitted as part of a sign in accordance with Article 11, Sign Standards.

J. Non-Conformities

Lighting fixtures existing as of June 12, 2000 may remain, and shall be considered nonconforming structures. Modifications, replacement or expansions, shall conform with the standards of this Ordinance.

Sec. 7.5 Outdoor Display and Storage

7.5.1 Applicability

Regulations governing outdoor storage and display shall apply in all non-residential districts.

7.5.2 Outdoor Display

- A.** Outdoor display is defined as the display of products actively available for sale, but does not include products in closed boxes, crates, other kinds of shipping containers, or uses considered outdoor storage in accordance with Sec. 7.5.3, Outdoor Storage, below.
- B.** Outdoor display shall be prohibited except that it shall be permitted in association with any nonresidential use following approval of a site plan illustrating the extent of the permitted area for outdoor display by the Development Review Board or governing body, as appropriate, provided it meets the standards below.
 - 1.** All products displayed shall be located outdoors only during the hours the use is open for business.
 - 2.** All products displayed outdoors shall be in conformance with an approved site plan, and:
 - a.** Shall be located no closer than five feet from any public entrance;
 - b.** Shall extend no more than eight feet from the exterior wall of such use, unless an approved site plan shows an area greater than eight feet;
 - c.** Shall occupy no more than 50% of the building frontage;
 - d.** Shall not block sidewalks or parking areas, and shall not impede pedestrian or vehicular circulation; and
 - e.** Shall not be located in a public right-of-way except in the Downtown Tier, subject to other applicable requirements.

7.5.3 Outdoor Storage

A. General

Outdoor storage is more intensive than outdoor display. Materials stored in outdoor storage are not normally brought indoors overnight.

B. Class A Outdoor Storage

- 1.** Class A outdoor storage is defined as garden supplies, building supplies, plants, vehicle sales and services, manufactured home sales, play equipment, and other similar uses.

2. Areas used for Class A outdoor storage shall be permitted following review and approval of a site plan illustrating the extent of the area proposed for outdoor storage, provided it meets the following standards:
 - a. No outdoor storage shall be allowed in street yards or within 15 feet of any public right-of-way, whichever is greater.
 - b. No outdoor storage shall be permitted within required vehicular use areas.
 - c. Outdoor storage may be located to the side of a building, provided it is not located within the side yard.
 - d. Any rear yard may be used for outdoor storage purposes, except in the SRP District.

C. Class B Outdoor Storage

1. Class B outdoor storage is defined as material stored in crates, boxes, or shipping containers; lumber yards; pipe; wrecking, junk, and salvage yards; vehicle storage yards; and other similar uses.
2. In addition to the requirements of paragraph B.2 above, areas used for Class B outdoor storage shall be screened from view from the public right-of-way, public vehicular use areas, or adjacent residential development pursuant to Sec. 9.7.2, Credit for Other Landscaping.

D. Outdoor Storage in SRP District

1. Outdoor storage shall not be permitted in required yards.
2. Outdoor storage shall be screened according to Class B standards.

Sec. 7.6 Utility and Trash Handling

7.6.1 Applicability

This section shall apply to all development other than single-family detached houses, zero lot houses, traditional houses, patio houses, semi-attached houses and duplexes.

7.6.2 Location

All utilities (including heating or air conditioning units and other mechanical equipment) and trash handling facilities shall be located on the same lot as the use served unless shared facilities are approved by the Development Review Board. No such facilities shall be located in the required street yard.

7.6.3 Screening

- A. All ground level utilities (including heating or air conditioning units and other mechanical equipment) and trash handling facilities shall be completely screened from the public right-of-way and adjacent properties pursuant to Sec. 9.7, Screening.
- B. A wall, solid wood fence, evergreen hedge, earth berm, or any combination thereof may be provided to obscure such facilities pursuant to Sec. 9.7, Screening; however, when the service side of the particular facility faces any property line, a wall or solid wood fence with gates or doors shall be provided.
- C. Landscaping of the entire service area shall be installed in accordance with the landscape buffer requirements listed in Sec. 9.7, Screening.

7.6.4 Access

All required trash handling facilities shall be designed with appropriate means of access to a street or alley in a manner that will least interfere with traffic movement, and will most facilitate the service of the facilities.

7.6.5 Utilization

Space allocated to any trash handling facilities shall not be used to satisfy the space requirements for off-street parking or loading facilities, nor shall any parking or loading spaces be used to satisfy the space requirements for any trash handling facility.

7.6.6 Performance

- A. All trash handling facilities shall be designed to prevent wind-blown debris from leaving the site.
- B. All food-related businesses shall provide water quality treatment in conformance with applicable standards and design guidelines for runoff from trash handling facilities.

7.6.7 Additional Standards for the DD District

- A.** All new development, not including parking structures, of 100,000 square feet or greater shall provide trash compactors on site.
- B.** Where shared solid waste facilities exist on sites to be redeveloped, the redevelopment shall continue to accommodate sufficient shared facilities.
- C.** Site design shall not require solid waste collection vehicles to back out of sites.
- D.** If approved by the Public Works Director or designee, a site design may require solid waste collection vehicles to back a maximum of 40 feet into sites given the following considerations:
 - 1.** Provided that pickup only occurs during off-peak hours, as determined by the Public Works Director or designee;
 - 2.** Provided that the street is not a State-maintained road; and
 - 3.** Provided that the development is on a lot of one acre or less.
- E.** A dedicated area for the separation, collection, and storage of recyclables shall be provided.
- F.** Solid waste handling areas shall be enclosed within the building or screened as per ordinance requirements so they are not visible from the street.

Sec. 7.7 Flagpoles and Flags

7.7.1 Definitions

- A. The term flag in this section shall mean a piece of fabric or other flexible material solely containing distinctive colors, patterns, standards, words, or emblems used as a symbol of an organization or entity, including but not limited to political jurisdictions, such as the United States.
- B. Flags displaying a logo, message, statement, or expression relating to commercial interests, and banners otherwise not meeting the definition of a flag shall also conform with all sign regulations in Article 11, Sign Standards.
- C. Reference to flagpole height refers to vertical flagpoles.
- D. References to the number of flags and flagpoles and flag dimensions refer to both vertical flagpoles and mast arm flagpoles, such as staffs extending at an angle from a building.

7.7.2 Requirements

- A. Except as otherwise provided herein flags shall be displayed on flagpoles.
- B. In nonresidential zoning districts, flagpoles shall not exceed the maximum height allowed in the zoning district or 70 feet, whichever is less.
- C. Flagpoles shall not be placed on top of buildings unless they are located in the Downtown Tier.
- D. In residential districts, flagpoles shall not exceed 25 feet in height unless a special use permit is granted by the Board of Adjustment. A fee shall not be charged for a use permit request for a flag in a residential district.
- E. A vertical flag pole shall be set back from all property boundaries a distance which is at least equal to the height of the pole.
- F. The maximum dimensions of any flag shall be proportional to the flagpole height. The hoist side of the flag shall not exceed 20% of the vertical height of the pole. In addition, flags are subject to the following dimensional limitations.

Pole Height (feet)	Max. Flag Size (square feet)
Up to 25	24
25 to 29	28
30 to 34	40
35 to 39	60
40 to 49	96
50 to 59	150
60 to 70	216

- G.** Each property shall be allowed a maximum of three flagpoles unless a special use permit is granted by the Board of Adjustment.
- H.** A maximum of two flags shall be allowed per flagpole.
- I.** The flag and flagpole shall be maintained in good repair. A flagpole with broken halyards shall not be used and flags which are torn or frayed shall not be displayed.
- J.** On United States and North Carolina holidays, there shall be no maximum flag size or number or other limitations on manner of display.
- K.** This section shall not be interpreted to restrict the right to display eligible flags as banners or noncommercial signage under Article 11, Sign Standards. Flags mounted directly on a building wall shall expressly be considered signs and shall be subject to Article 11, Sign Standards.

Sec. 7.8 General Performance Standards

7.8.1 Air Pollution

Any activity which releases smoke, particulate matter, gases or contaminants into the atmosphere shall comply with all applicable federal and State regulations.

7.8.2 Fire, Explosion and Storage of Flammable Materials

All activities shall comply with the Fire Codes of the appropriate jurisdiction.

7.8.3 Hazardous Materials and Wastes

All activities shall comply at a minimum with all applicable State and federal regulations as well as the appropriate County Health Department regulations and City and County fire department regulations for hazardous materials and wastes.

7.8.4 Electromagnetic Transmissions

All activities shall control electromagnetic frequencies so that there is no interference in the operation of equipment off-site and no adverse effects to persons off-site.

7.8.5 Waste Products

Any activity which discharges material or liquids into sanitary sewers shall conform with all federal, State and local discharge and release regulations. City and County sanitation ordinances may also apply. All storage areas, waste disposal areas, and trash handling facilities shall be designed to prevent wind blown debris from leaving the site. The drainage of waste or stored materials onto adjacent properties or directly into creeks and watercourses or into the stormwater conveyance system is prohibited. Only uncontaminated stormwater runoff may be discharged into the stormwater conveyance system.

7.8.6 Radiation

All activities shall comply with all federal and State regulations which apply to the handling, storage, and disposal of nuclear material.

7.8.7 Noise

Noise shall be regulated by Article II, Noise, of Chapter 26, Environment, Litter, Vandalism and Pollution the Durham City Code or Article 11 of Chapter 14 (Environment) of the Durham County Code, as appropriate.

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