

## CHAPTER 5. - BUILDING TYPES AND ARCHITECTURAL STANDARDS

### 5.1. - Purpose and intent.

The rich architectural vocabulary of the City of Brevard presents a wide variety of development opportunities using traditional forms while avoiding any perception of monotony. Buildings that are stylized in an attempt to use the building itself as advertising shall be discouraged, particularly where the proposed architecture is the result of a "corporate" or "franchise" design. The standards in this chapter are intended to attach the same or greater level of importance to the overall building design as is placed on the use contained within. Buildings are expected to long-term additions to the architectural vibrancy of the community.

### 5.2. - Applicability.

With the exception of single-family and two-family residential and industrial development as specifically referenced herein, the standards contained in this chapter shall apply throughout the jurisdiction of this ordinance, regardless of the underlying zoning district provisions.

### 5.3. - Exceptions.

- A. While it is expected that some new building types will be introduced to the city, these variations should be based upon the predominant types listed in this chapter. Innovative planning or design ideas for development in any district where the proposed building types are different than those allowed by the base district requirements may be approved as a special use permit by the board of adjustment in accordance with the provisions of Chapter 16 of this ordinance.
- B. Synthetic and other materials may be substituted for required building materials when the substitute materials are similar in appearance and equal or exceed the durability of the original material.
- C. Single-family and duplex structures 4,000 square feet and smaller are exempt from the provisions of this chapter, unless otherwise specified herein.
- D. Structures in General Industrial (GI) Districts are exempt from the provisions of this Chapter unless otherwise specified herein.

### 5.4. - General building design requirements.

Unless otherwise noted, the following standards apply to all buildings:

- A. *Architectural style:* The building design standards of this chapter intentionally do not mandate a particular style and permit a wide variety of architectural expressions. However, when a design exhibits a known architectural style (e.g., Colonial, Victorian, Classical Revival) the details shall be consistent with that style unless the local architectural vernacular of Brevard provides an alternate precedent for a detail.
- B. *Frontage:* All buildings shall share a frontage line with a street or square. (Exception: Building that are interior to a site that has buildings that otherwise meet the frontage requirement.)
- C. *Termination of vistas:* Important street vistas, such as along city gateways and primary pedestrian streets, should terminate in a focal point such as a building or other architectural or natural feature.
- D. *Compatibility:* Adjacent buildings should relate in similarity of scale, height, architectural style, and/or configuration.

- E. *Proportions:* Windows, doors, columns, eaves, parapets, and other building components shall be proportional to the overall scale of the building. Windows shall be vertically proportioned wherever possible.
- F. *Wall materials:* When two or more materials are used on a facade, the heavier material (e.g., brick) should be placed below the lighter material (e.g., siding) to give a sense of support and grounding.



Facade elements such as doors and windows should be proportional (5.4 E).

- G. *Underground wiring:* To reduce the visual impact of overhead wiring, utility services shall be located underground.
- H. *Type of construction:* Manufactured, mobile, and metal units are prohibited, except as may be allowed in Chapter 3 for a temporary office or classrooms, site management, or storage uses during construction projects.
- I. *Roof pitch:* Roofs with pitches less than 3:12 and flat roofs will require a parapet wall. A pitched roof shall be profiled by eaves a minimum of six inches from the building face or with a gutter.



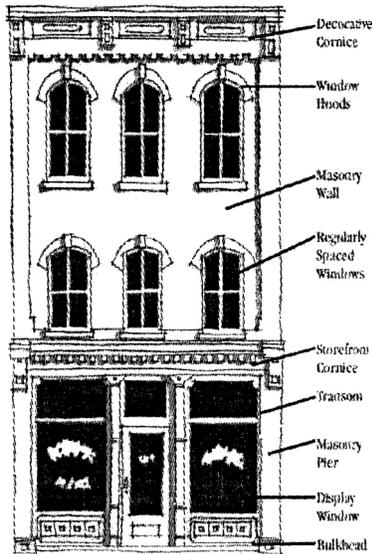
Provide eaves with pitched roofs.

- J. *Public art:* Public art, such as statues, fountains, and other works of art are encouraged and may be placed in any required front setback area as well as in other appropriate areas.
- K. *Facade treatment:*
  1. Architectural elements such as windows, doors, bulkheads, masonry piers, transoms, cornice lines, window hoods, awnings, canopies, and other similar details, shall be used on all facades facing public rights-of-way.



Storefronts should provide windows and doors along their street frontage (5.4 K.1)

2. Building wall offsets, including projections, recesses, and changes in floor level shall be used in order to:
  - i. Add architectural interest and variety; relieve the visual effect of a single, long wall;
  - ii. Subdivide the wall into human size proportions. Similarly, roofline offsets shall be provided to lend architectural interest and variety to the massing of a building and to relieve the effect of a single, long roof.
3. The ground level of buildings shall offer pedestrian interest along sidewalks and paths. This may be accomplished by means of windows, entrances, and architectural details. Incidental signage on buildings (in accordance with Chapter 12), awnings, and ornamentation is encouraged.



5.5. - Permitted use by building type.

The following table cross references the various categories of uses and the corresponding building types in which they may be established within new development. This table is to be used in conjunction with the table in Section 5.6. These apply to new construction only. Adaptive re-use of existing buildings need only comply with the district standards.

Use Category	Building Type						
	Civic	Institutional	Home	Townhouse	Apartment	Mixed-Use	Commercial
Residential			X	X	X	X	
Lodging			X	X	X	X	X
Office/Service	X	X	X	X		X	X

Retail/Restaurants		X	X				X	X
Entertainment/Recreation	X	X					X	X
Manufacturing/Wholesale/Storage		X					X	X
Civic/Institutional	X	X					X	

5.6. - Permitted building type by district.

The following table indicates the permitted building type requirements by district. An "X" indicates that the specific building type and its requirements are applicable.

Building Type	Zoning District							
	GR	RMX	RAMU	NMX	DMX	CMX	IC	GI
Civic	X	X	X	X	X	X	X	
Institutional	X	X	X				X	
House	X	X	X	X	X		X	
Townhouse	X	X	X	X	X	X	X	
Apartment		X	X	X	X	X	X	
Mixed-Use			X	X	X	X	X	
Commercial			X			X		

5.7. - Building type: Civic.

- A. *Description:* The civic building is the most important building type in the city. It serves equally as a landmark and a public gathering place. Such buildings should be constructed as permanent additions to the long-term vibrancy of the city and should exemplify the very best architectural designs and building practices.

- B. *Applicability:* The civic building type includes public buildings, such as city halls and libraries, semi-public buildings, such as museums and observatories, and private buildings such as churches and synagogues.



***Courthouse***



***Church***

(Note the termination of the street vista)

- C. *General requirements:* Because of the unique characteristics of civic buildings, they are generally exempt from the standards imposed on other buildings in this chapter with the following exceptions:

1. They shall be built so that they terminate a street vista whenever possible.
2. They shall be of sufficient design to create visual anchors for the community.

5.8. - Building type: Institutional.

- A. *Description:* Institutional buildings often serve as landmarks and public gathering places. Like civic buildings, such buildings should be constructed as permanent additions to the long-term vibrancy of the city and should exemplify the very best architectural designs and building practices.
- B. *Applicability:* The institutional building type applies to governmental offices, schools, hospitals and long-term care facilities, post offices, and non-profit or charitable clubs and organizations.



### *College Campus*



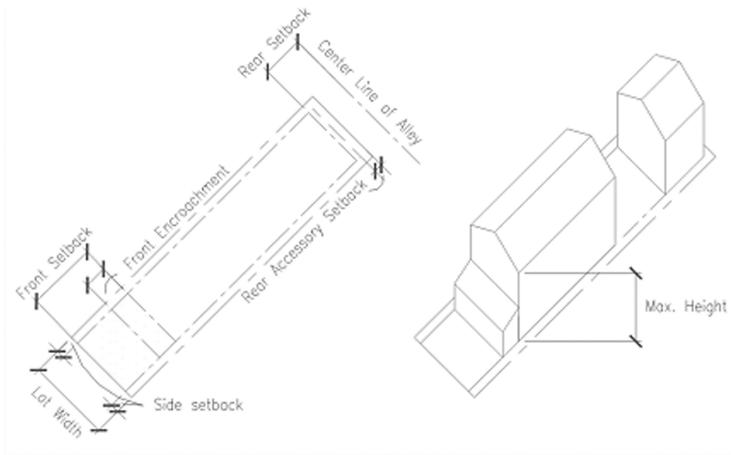
## ***School***

### **C. *General requirements:***

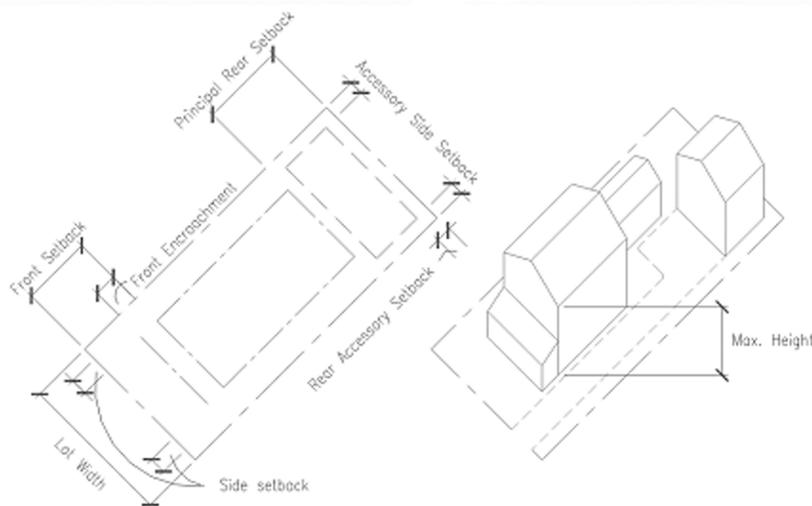
1. They should be of sufficient design to create visual anchors for the community.
2. Building(s) incidental to the principal structure shall be situated at least 20 feet behind the front facade of the principal structure; if there is more than one building incidental to the principal structure, they shall be arranged to create secondary gathering spaces within the lot.
3. Building walls shall be clad in clapboard, stone, stucco, cementitious fiber board, brick, or marble. Decorative concrete masonry units (CMU), exterior insulation finishing systems (EIFS) and/or vinyl siding may be used as a primary element only on facades not facing public streets and may be used as a secondary element on other walls.
4. Flat roofs are allowed; however, principal buildings adjacent to residential structures are encouraged to have pitched roofs or similar architectural features to ensure compatibility.

### **5.9. - Building type: Single family structure (house).**

- A. *Description:* The house is the predominant building type in the City of Brevard. It is flexible in use, accommodating single family uses, multi-family uses up to four units, home occupations, professional offices, and limited retail uses based on the district in which it is located. The two types of houses addressed herein are distinguished by how the lot is accessed with an automobile. Hence, there are different standards for lots accessed by a driveway from a fronting street and for lots accessed by a rear lane or alley. In general, within a block, building types should be uniform in their use of driveways or rear lanes/alleys.
- B. *Applicability:* These requirements shall apply to single-family and duplex structures with a ground floor square footage greater than 4,000 square feet.
- C. *Yards:* The house typically has four yards (front/two sides/rear) though variations include setting the building on one of the side property lines to create a larger side yard on the opposite side (e.g., Charleston Single)



***House with Driveway***



### ***House with Rear Lane/Alley***

#### **D. General requirements:**

1. Usable porches and stoops should be used as a primary architectural element of the building design and be located on the front and/or side of the home. Useable front porches are at least eight feet deep and extend more than 50 percent of the facade.
2. Garages with front loading bays (if permitted) shall be recessed from the front facade of the house and visually designed to form a secondary building volume. All garages with more than two bays shall be turned such that the bays are not visible from the street. The width of an attached garage shall not exceed 40 percent of the width of the building facade.
3. With the exception of single-family homes on lots with a width greater than 60 feet, all front entrances shall be raised from the finished grade (at the frontage line) a minimum of 1½ feet to provide privacy.

#### **E. Materials:**

1. Residential building walls shall be primarily clad in one or more of the following materials: wood clapboard, cementitious fiber board, wood shingle, wood drop siding, primed board, wood board and batten, brick, stone, stucco, vinyl, or synthetic materials similar and/or superior in appearance and durability.
2. Residential roofs shall be clad in wood shingles, standing seam metal, terne, slate, dimensional asphalt shingles or synthetic materials similar and/or superior in appearance and durability.

#### **F. Other requirements:**

1. Main roofs on residential buildings shall be symmetrical gables or hips with a pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No monopitch roof shall be pitched less than 4:12.
2. Two wall materials may be combined horizontally on one facade. The heavier material should be vertically placed below the other material.
3. The undercroft of buildings shall be enclosed.
4. Overhanging eaves may expose rafters.

5. Flush eaves shall be finished by profiled molding or gutters.



***Single-Family Homes with Alley***



***Single-Family Homes with Driveway***



*Duplex*



*Triplex*



*Quadruplex*



*Professional Offices*

5.10. - Requirements for manufactured homes.

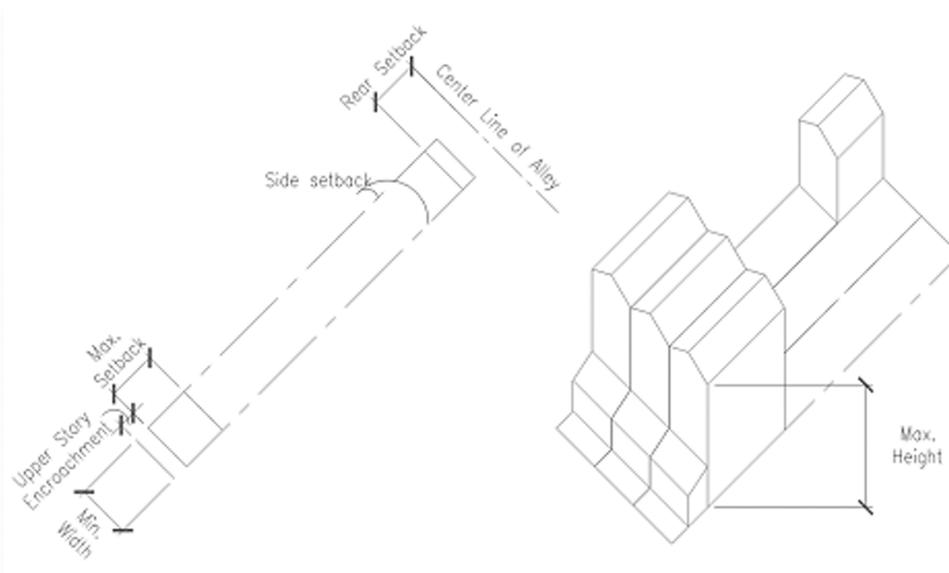
- A. In addition to the above criteria, a manufactured home must bear a seal certifying that it meets or exceeds the construction standards promulgated by the U.S. Department of Housing and Urban Development that were in effect at the time of construction. Manufactured homes must further comply with each of the following additional criteria:

1. Manufactured or mobile homes constructed prior to December 31, 1981 shall not be permitted within the regulatory jurisdiction of the City of Brevard.
2. Stairs, porches, entrance platforms and other means of entrance and exit to the manufactured home shall be installed and constructed in accordance with the standards set by the N.C. Department of Insurance.
3. Manufactured homes shall be set up on the site in accordance with the standards set by the N.C. Department of Insurance.
4. The tongue, axes, transporting lights, and removable towing apparatus shall be removed after placement on the lot and before occupancy.
5. Within 30 days following setup, manufactured homes shall be fitted with skirting in compliance with the following:
  - i. Skirting of the lower area below the floor level shall be required on all manufactured home units.
  - ii. Skirting shall be of such material and color to blend with the color, material, fabric and/or design of the mobile home itself.
6. A permanent foundation, wall or basement, constructed in compliance with the N.C. Department of Insurance regulations, may be erected to support any mobile home unit in lieu of the above requirements for skirting.

B. Manufactured homes shall not be used for nonresidential purposes.

5.11. - Building type: Townhouse.

A. *Description:* The townhouse is a building with two or more residential units that are located side-by-side. When an entrance is provided at-grade, the townhouse may be used as a live-work unit. The uses permitted within the building is determined by the regulations in place for the district in which it is located.



### ***Attached House***

- B. *Yards:* The townhouse typically has one yard (rear) though variations include a small front setback often used for landscaping.
- C. *General requirements:*
  1. The bulk and scale of townhouse infill development shall be similar to and consistent with the surrounding neighborhood as evaluated by the bulk of buildings adjacent, abutting and surrounding the proposed development. All buildings should be designed to adhere to the existing architectural pattern of the surrounding neighborhood.
  2. Useable porches and stoops should form a predominate motif of the building design and be located on the front and/or side of the building. Useable front porches are at least eight feet deep and extend more than 30 percent of the facade.
  3. Garage doors are not permitted on the front elevation of any townhouse.
  4. All building elevation visible from the street shall provide doors, porches, balconies, and/or windows. A minimum of 60 percent of front elevations, and a minimum of 30 percent of side and rear building elevations shall meet this standard. "Percent of elevation" is measured as the horizontal plane (lineal feet) containing doors, porches, balconies, terraces, and/or windows. This standard applies to each full and partial building story.
  5. To provide privacy, all front entrances shall be raised from the finished grade (at the building line) a minimum of 1½ feet.
  6. All townhouse buildings shall provide detailed design along all elevations. Detailed design shall be provided by using as many of the following architectural features on all elevations as appropriate for the proposed building type and style (may vary features on rear/side/front elevations):
    - i. Dormers.
    - ii. Gables.
    - iii. Recessed entries.
    - iv. Covered porch entries.

- v. Cupolas or towers.
- vi. Pillars or posts.
- vii. Eaves (minimum ten-inch projections which may include gutter).
- viii. Off-sets in building face or roof (minimum 16 inches).
- ix. Window trim (minimum four inches wide).
- x. Bay windows.
- xi. Balconies.
- xii. Decorative patterns on exterior finish (e.g. scales/shingles, wainscoting, ornamentation, and similar features).
- xiii. Decorative cornices and roof lines (for flat roofs).



***Multi-Family Townhomes with Alley***



*Multi-Family Townhomes with Alley*



*Multi-Family Townhomes with Driveways*



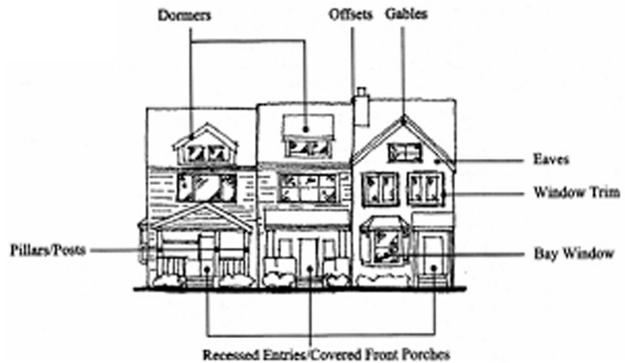
### ***Live-Work Units***

#### **D. *Materials:***

1. Residential building walls shall be one or more of the following: wood clapboard, cementitious fiber board, wood shingle, wood drop siding, primed board, wood board and batten, brick, stone, stucco, or vinyl.
2. Residential roofs shall be clad in wood shingles, standing seam metal, terne, slate, and/or asphalt shingles.

#### **E. *Other requirements:***

1. Main roofs on residential buildings shall be symmetrical gables or hips with a pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No monopitch roof shall be pitched less than 4:12.
2. Two wall materials may be combined horizontally on one facade. The heavier material should be vertically placed below the other material.

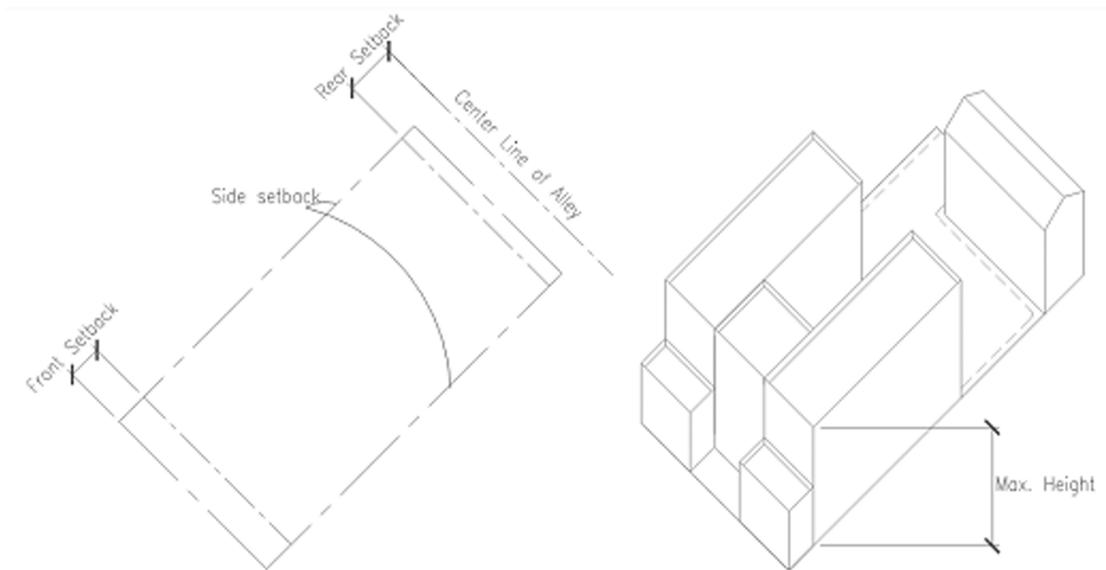


### ***Townhome Buildings***

3. The undercroft of buildings shall be enclosed.
4. All buildings should be designed to adhere to the existing architectural pattern of the surrounding neighborhood.
5. Overhanging eaves may expose rafters.
6. Flush eaves shall be finished by profiled molding or gutters.
7. All rooftop equipment shall be screened from view.

#### 5.12. - Building type: Apartment.

- A. *Description:* A multiple unit building with units vertically arranged (generally) and with parking located below or behind the building. Units may be for used rent or for sale in condominium ownership or may be designed as continuing care facilities. The ground floor may be available for commercial uses. The use permitted within the building is determined by the district in which it is located.
- B. *Yards:* An apartment building typically has one yard (rear) though variations include a small front setback often used for landscaping.



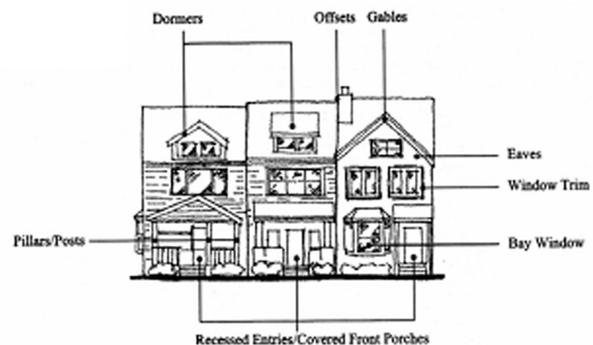
## ***Apartment***

### **C. General requirements:**

1. The bulk and scale of apartment infill development shall be similar to and consistent with the surrounding neighborhood as evaluated by the bulk of buildings adjacent, abutting and surrounding the proposed development. All buildings should be designed to adhere to the existing architectural pattern of the surrounding neighborhood.
2. Useable porches and stoops should form a predominate motif of the building design and be located on the front and/or side of the building. Useable front porches are at least eight feet deep and extend more than 30 percent of the facade.
3. Garage doors are not permitted on the front elevation of any apartment building.
4. All building elevations visible from the street shall provide doors, porches, balconies, and/or windows. A minimum of 60 percent of front elevations, and a minimum of 30 percent of side and

rear building elevations shall meet this standard. "Percent of elevation" is measured as the horizontal plane (linear feet) containing doors, porches, balconies, terraces, and/or windows. This standard applies to each full and partial building story.

5. To provide privacy, all front entrances shall be raised from the finished grade (at the building line) a minimum of 1½ feet.
6. Apartment buildings shall provide detailed design along all elevations. Detailed design shall be provided by using as many of the following architectural features on all elevations as appropriate for the proposed building type and style. Features may vary between rear, side and front elevations.
  - i. Dormers.
  - ii. Gables.
  - iii. Recessed entries.
  - iv. Covered porch entries.
  - v. Cupolas or towers.
  - vi. Pillars or posts.
  - vii. Eaves (minimum ten-inch projection which may include gutter).
  - viii. Off-sets in building face or roof (minimum 16 inches).
  - ix. Window trim (minimum four inches wide).



### ***Apartment Buildings***

- x. Bay windows.
- xi. Balconies.
- xii. Decorative patterns on exterior finish (e.g. scales/shingles, wainscoting, ornamentation, and similar features).
- xiii. Decorative cornices and roof lines (for flat roofs).

D. *Materials:*

1. Apartment building walls shall be wood clapboard, cementitious fiber board, wood shingle, wood drop siding, primed board, wood board and batten, brick, stone, stucco, or vinyl.
2. Apartment building roofs shall be clad in wood shingles, standing seam metal, terne, slate, or asphalt shingles.

E. *Other requirements:*

1. Main roofs on apartment buildings shall be symmetrical gables or hips with a pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No monopitch roof shall pitched be less than 4:12.
2. Two wall materials may be combined horizontally on one facade. The heavier material should be vertically placed below the other material.
3. The undercroft of buildings shall be enclosed.
4. All buildings should be designed to adhere to the existing architectural pattern of the surrounding neighborhood.
5. Overhanging eaves may expose rafters.
6. Flush eaves shall be finished by profiled molding or gutters.
7. All rooftop equipment shall be screened from view.



***Multi-Family Development***



*Multi-Family Development*



*Eightplex*



### ***Multi-Family Development***

5.13. - Building type: Mixed-use.

- A. *Description:* A multi-story small scale structure which can accommodate a variety of uses. A group of mixed-use buildings can be combined to form a mixed-use neighborhood center. Individual mixed-use buildings can be used to provide some commercial services, such as a neighborhood store, in close proximity to homes. The uses permitted within the building are determined by the regulations for the zoning district in which it is located.



### ***Office Over Retail/Restaurant***



*Office Over Retail/Office*



*Residential/Office Over Retail*

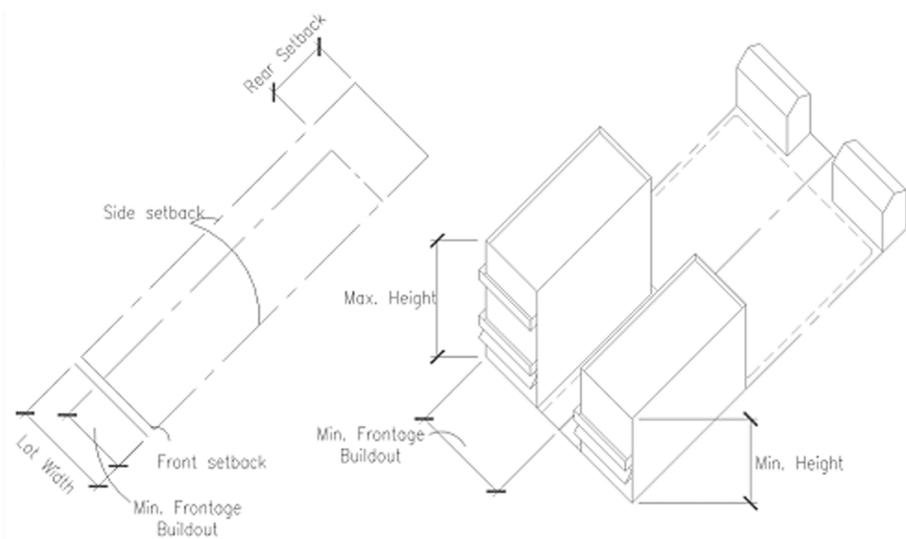


*Office Over Office/Retail*



*Residential Over Residential/Office/Retail*

- B. *Yards:* A mixed-use building typically has one yard (rear), although variations include a small front plaza or courtyard to provide public space for outdoor seating as well as a building with complete lot coverage where parking is handled in a manner other than on-site surface parking.



## ***Mixed-Use Building***

### **C. General requirements:**

1. Mixed-use building shall have a minimum of two stories.
2. Street walls: The first floors of all mixed-use buildings shall be designed to encourage and complement pedestrian-style interest and activity by incorporating the following elements:
  - i. The first floor of all buildings fronting directly on a street shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40 percent of the length of the first floor building elevation.
  - ii. Expanses of blank walls may not exceed 20 feet in length. (A "blank wall", in this context, is a facade that does not contain transparent windows or doors).
  - iii. Window dimensions:

- (1) Maximum sill height (1st floor): 42 inches (as measured from the finished floor elevation).
  - (2) Minimum area: 16 square feet.
  - (3) Minimum width: 3 feet.
  - (4) Minimum height: 4 feet.
3. Ventilation grates and emergency exit doors located at the first floor level in the building facade, which are oriented to any public street, shall be decorative.
  4. Building entrances: A primary entrance facade shall be oriented toward the street, designed for the pedestrians, and distinguishable from the rest of the building. Such entrances shall provide a sense of entry and add variety to the streetscape. Additional entrances may be oriented toward side or rear parking lots. Service entrances for shipping and receiving shall be oriented away from the public street.
  5. A building canopy, awing, or similar weather protection may be provided and should project a minimum of three—five feet from the facade.

D. *Materials:*

1. Mixed use building walls shall be brick, stone, cementitious fiber board, stucco, or wood clapboard. Regular or decorative concrete block and EIFS-type stucco may be used on building walls not visible from a public street or as an accent material only. All accessory buildings shall be clad in materials similar in appearance to the principal structure.
2. Pitched roofs shall be clad in wood shingles, standing seam metal, corrugated metal, slate, or asphalt shingles.

5.14. - Building type: Commercial building.

- A. *Description:* A single or multi-story medium to large structure which generally accommodates automobile-oriented commercial uses typically found along major thoroughfares. A group of commercial buildings can be combined to form a community center. This building type provides convenient automobile access from the fronting thoroughfare, while maintaining the negative impacts of parking lots on an active pedestrian realm. The uses permitted within the building are determined by the regulations for the zoning district in which it is located.



*Retail*



*Grocery Store*



*Retail along Thoroughfare*



*Pharmacy with Drive-Thru*

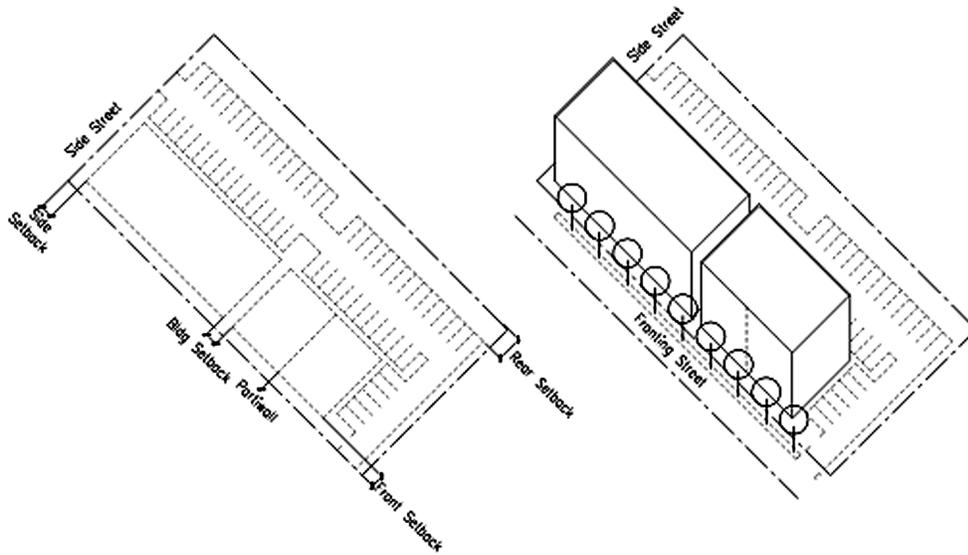


*Fast-food Restaurant*



### *Gas Station*

- B. *Yards:* The commercial building typically has one yard (rear) though variations include a small front plaza or courtyard to provide public space for outdoor seating as well as a building with complete lot coverage where parking is handled in a manner other than on-site surface parking.



## ***Commercial Building***

### **C. General requirements:**

1. **Street walls:** The first floors of all commercial buildings shall be designed to encourage and complement pedestrian-style interest and activity by incorporating the following elements:
  - i. The first floor of all buildings fronting directly on a street shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40 percent of the length of the first floor building elevation.
  - ii. Expanses of blank walls may not exceed 20 feet in length. (A "blank wall", in this context, is a facade that does not contain transparent windows or doors.)
  - iii. Window dimensions:
    - (1) Maximum sill height (1st floor): 42 inches measured from the finished floor elevation
    - (2) Minimum area: 16 square feet.
    - (3) Minimum width: 3 feet.
    - (4) Minimum height: 4 feet.
  - iv. Ventilation grates and emergency exit doors located at the first floor level in the building facade, which are oriented to any public street, shall be decorative.

### **D. Materials:**

1. Commercial building walls shall be brick, stone, cementitious fiber board, stucco or wood clapboard. Regular or decorative concrete block and EIFS-type stucco may be used on building walls not visible from a public street or as an accent material only. All accessory buildings shall be clad in materials similar in appearance to the principal structure.
2. Pitched roofs shall be clad in wood shingles, standing seam metal, corrugated metal, slate, or asphalt shingles.

5.15. - Requirements for tall structures.

The following requirements shall apply to those structures for which a special use permit is required in order to exceed the maximum "by right" height requirements as set forth in Chapter 02.

- A. Applicants shall submit a profile of the proposed structure and a rendering of the relationship between the proposed structure and the surrounding skyline formed by existing structures within 500 feet of the proposed structure.
- B. Variations in front rooflines shall be used to reduce the scale of buildings. Roof features shall be required which complement the character of adjoining and nearby structures.
- C. All other applicable requirements of this ordinance shall apply.
- D. The zoning board of adjustment (or city council when considered as part of a Planned Development District) may, on its own initiative or in consideration of recommendations of the administrator, the community appearance commission, and/or the technical review committee, impose other conditions as may be necessary to protect the health, safety, and welfare of the general public and the character of the surrounding neighborhood.

(Ord. No. 15-08, § 14, 12-5-08)

5.16. - Additional requirements for large structures.

- A. *Applicability:* These standards shall apply to newly constructed structures or existing structures undergoing substantial improvement that meet the following criteria:
  - 1. Any single structure with a gross floor area of 100,000 square feet or greater.
  - 2. Any single structure or grouping of two or more structures with a combined total gross floor area of 100,000 square feet or more when:
    - i. Such structures are joined by a fire wall or partiwall; and
    - ii. Such structures are under the same ownership, or are undergoing improvement under a single land development permit, or have been approved under the same development authorization.
  - 3. Where indicated with an (I), such standards shall apply to industrial structures.
- B. *Additions to existing structures:*
  - 1. These standards shall apply to additions to existing structures when such addition equals or exceeds ten percent of the ground floor area of the original structure.
  - 2. These standards shall apply to the original portion of the structure to which the addition is being made when:
    - i. Renovation is being made to the original structure; and,
    - ii. Such renovation equals or exceeds 50 percent of the appraised value of the original structure.
  - 3. Modifications to or waiver of requirements:
    - i. The approving authority may modify or waive a requirement of this section upon determining the following:
      - (1) Such requirement would serve no useful purpose.
      - (2) When applicable to pre-existing, non-conforming structures, compliance with such requirement would be impossible or unreasonably burdensome due to constraints imposed by the original design of the existing structure.
      - (3) Such requirements would impose an unreasonable hardship upon the applicant.

ii. When considering a request to modify or waive a requirement under this section, the approving authority shall verify, in consultation with the administrator and the city engineer, that no other reasonable options exist to achieve compliance with these standards.

4. These requirements are expressed as performance standards. It shall be the responsibility of the applicant to provide engineer-certified documentation that these requirements have been or shall be met for any newly constructed structure to which these standards apply. The administrator may, in consultation with the city engineer, take steps to verify that these requirements have been or will be met.
5. Failure to comply with these standards shall constitute grounds for revocation of the special use permit.

C. *Requirements:*

1. Large structures shall require the submission of a traffic impact study in accordance with Chapter 17 of this ordinance. Any improvements recommended by a traffic impact study shall be constructed by the applicant as a condition of approval.
2. All buildings shall provide secure bicycle storage capable of serving building users. One bicycle space shall be provided for every 20 automobile parking spaces, with a minimum of one five-bicycle rack provided near each building entrance irregardless of the number of parking spaces provided.
3. Provide preferred parking for carpools or vanpools capable of serving five percent of all building users (measured at peak periods).
4. Heat island effect: The performance standards contained herein are intended to reduce heat islands (thermal gradient differences between developed and undeveloped areas), thereby minimizing the impact on microclimate and human and wildlife habitat.

i. *Non-roof areas:*

- (1) Provide shade (within five years of landscape installation), use light-colored/high-albedo materials with a solar reflectance index (SRI) of at least 29, and use open grid pavement for at least 50 percent of the site's non-roof impervious surfaces, including parking areas, walkways, plazas, fire lanes, etc.; or,
- (2) Place a minimum of 50 percent of parking spaces underground or covered by structured parking; or,
- (3) Use an open-grid pavement system (less than 50 percent impervious) for a minimum of 50 percent of the parking lot;

ii. *Roof areas:*

- (1) Use roofing materials having a solar reflectance index (SRI) as required in the following table for a minimum of 75 percent of the roof surface; or,
- (2) Install a "green" (vegetated) roof for at least 50 percent of the roof area.
- (3) Combinations of high albedo and vegetated roof can be used if they meet, in combination, the following criteria:

$$\text{Total Roof Area} <= (\text{Area of SRI Roof} * 1.33) + (\text{Area of green roof} * 2)$$

Roof Type	Slope	SRI
Low-Sloped Roof	≤ 2:12	78

Steep-Sloped Roof	> 2:12	29
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5. CFC reduction in HVAC&R equipment required:
  - i. The purpose of this provision is to reduce ozone depletion.
  - ii. There shall be no use of CFC-based refrigerants in new base building HVAC&R systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phase-out conversion.
6. Facade requirements: The requirements shall apply to all facades that face a public or private street (except alleys) and to facades that are oriented so as to be visible from a public or private street. Rear service areas shall be screened so as to not be visible from adjacent properties, and shall comply with these requirements if visible from any street with a classification greater than an alley or commercial service street.
  - i. Facades greater than 100 feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth/projection of at least three percent of the length of the facade and extending horizontally for at least 20 percent of the length of the facade.
  - ii. No portion of the facade shall extend more than 20 feet in length without incorporating a break as described in the preceding paragraph.
  - iii. No less than 60 percent of the horizontal length of ground floor shall have arcades, display windows, entry areas, awnings, or other such features.
  - iv. No less than 60 percent of the horizontal length of ground floor facades shall be transparent between the height of three feet and eight feet above the walkway grade.
7. Variations in front rooflines shall be used to reduce the scale of buildings. Roof features shall be required which will complement the character of adjoining and nearby structures.

(Ord. No. 15-08, §§ 15, 16, 12-5-08)

5.17. - Encroachments.

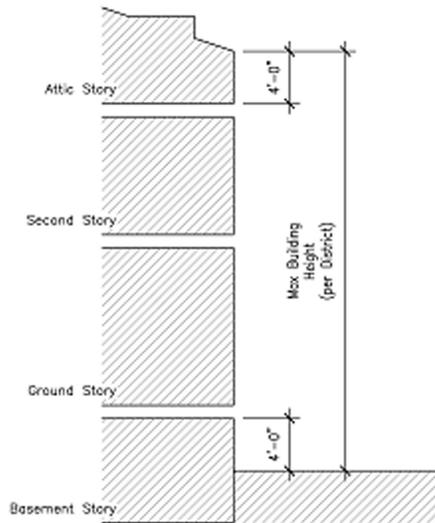
Certain architectural features are permitted to encroach across parcel lines, into setback areas, and into rights-of-way. The following standards shall be established for encroachments:

- A. *Awnings*: Awnings on structures within commercial and mixed-use zoning districts may encroach upon the front setback area and rights-of-way provided that the following conditions are met:
  1. Awnings shall be supported by means of a frame attached directly to the structure receiving beneficial use of the awning. In no case shall awnings be supported by a frame attached to a sidewalk or other public right-of-way.
  2. Storefront awnings projecting the width of the sidewalk pedestrian zone must be attached to the building at 14 feet above the grade of the sidewalk. Awnings may only project two-thirds the width of the sidewalk pedestrian zone if attached lower than 14 feet above the grade of the sidewalk.
  3. Awnings shall not project into the furniture/landscape zone of any sidewalk, nor over a street or adjacent on-street parking, and, in no event, shall they project further than seven feet from the face of the building.
  4. The lowest point of any awning shall be at least nine feet above the grade of the sidewalk.

5. All awnings in other zoning districts shall be considered a part of the structure for purposes of measuring and complying with area and setback regulations.
- B. *Handicapped ramps*: The administrator may approve the installation of handicapped landings, ramps, and similar structures as additions to existing structures, even though such additions do not meet the minimum setback requirements of this ordinance, provided such additions meet the following criteria:
1. They are intended for the sole purpose of providing handicapped access to an existing structure.
  2. They fully conform to North Carolina Building Code and are designed to minimize setback deviations to the maximum extent possible.
  3. Prior to the issuance of any permit the administrator shall inspect the site of the proposed addition and may impose such conditions as are necessary to minimize any conflicts that may arise from the construction thereof, including the encroachment of such additions upon setback lines.
  4. No such addition shall encroach into a public or private right-of-way or easement, regulatory floodway, or surface water protection area.

5.18. - Computation of building height.

- A. "Building height" is measured as the vertical distance above a reference elevation measured to the parapet or roof line of a flat roof, the eave of a pitched roof, or the deck line of a mansard roof. The height of a terraced or stepped building is the maximum height of any segment of the building. The height limitations of this Code shall not apply to church spires, belfries, cupolas, and domes not intended for human occupancy, monuments, water towers, observation towers, transmission towers, chimneys, smokestacks, conveyors, flagpoles, masts and antennas; provided evidence from appropriate authorities is submitted to the effect that such building or structure will not interfere with any airport zones or flight patterns.
- B. The reference elevation shall be selected using the greater of either of the following:
1. The elevation of the highest adjoining sidewalk or ground surface within a five-foot horizontal distance of an exterior wall of the building when such sidewalk or ground surface is not more than ten feet above the lowest grade; or,
  2. An elevation ten feet higher than the lowest grade when the sidewalk or ground surface described in paragraph 1, above is more than ten feet above the lowest grade.
- C. Story: The habitable level of a building, which level shall not exceed 14 feet in height from finished floor to finished floor. Basements that emerge less than four feet from grade or attics not exceeding four feet at the knee-wall shall not constitute a story.



### ***Building Height***

- D. Items not included in calculation: The height limitations of Chapter 2, Section 2.3(E) of this ordinance shall not apply to church spires, belfries, cupolas, and domes not intended for human occupancy, monuments, water towers, observation towers, transmission towers, chimneys, smokestacks, conveyors, flagpoles, masts and antennas; provided evidence from appropriate authorities is submitted to the effect that such building or structure will not interfere with any airport zones or flight patterns.