

Commentary in this color and font.

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: _____

Address: _____ Zip Code _____

Owner/Authorized Agent: _____ Phone # (_____) _____ - _____ E-Mail _____

Owned By _____

Code Enforcement Jurisdiction: _____

Completely fill out this section. Code Enforcement Jurisdiction refers to the jurisdiction having authority. For Fayetteville, you would enter "City of Fayetteville".

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	_____	_____	_____	() _____	_____
Civil	_____	_____	_____	() _____	_____
Electrical	_____	_____	_____	() _____	_____
Fire Alarm	_____	_____	_____	() _____	_____
Plumbing	_____	_____	_____	() _____	_____
Mechanical	_____	_____	_____	() _____	_____
Sprinkler-Standpipe	_____	_____	_____	() _____	_____
Structural	_____	_____	_____	() _____	_____
Retaining Walls >5' High	_____	_____	_____	() _____	_____
Other	_____	_____	_____	() _____	_____

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

This area is where you will enter the appropriate information on who prepared the plan package. Write "N/A" in lines that no one helped in preparation of the package.

2018 NC BUILDING CODE:

This section refers to which codes will apply to your project:

- *Building= footing, slab, foundation, walls and wall coverings, insulation, roof and roof coverings, etc.*
- *Mechanical= HVAC, refrigeration, exhaust, ventilation, gas, gas appliances, etc.*
- *Electrical= wiring including low-voltage, electrical devices and appliances, etc.*
- *Plumbing= drain, waste, and vent piping, water piping including service, building, and irrigation; etc.*
- *Fire= fire prevention systems, etc.*

2018 NC EXISTING BUILDING CODE

This selection is for when you have opted to use the North Carolina Existing Code. Please note that this code only allows some modifications to the standard codes.

To view the free online abbreviated codes, please visit: <https://www.ncosfm.gov/codes>

CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): _____

RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): _____

To find constructed dates, you can visit the Cumberland County Tax website data viewer at <https://www.arcgis.com/apps/webappviewer/index.html?id=a6ea68995c2349e9a177366288589be7>

Current and proposed occupancy refers to the Occupancy Classification. This information can be found in Chapter 3 of the North Carolina Building Code.

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RISK CATEGORY (Table 1604.5): Current:

Proposed:

*Risk categories will apply to a **Change of Occupancy Classification** and in particular if there is no construction part of the project. Chapter 10 of the North Carolina Existing Code covers the requirements and you can find the particular **RISK CATEGORY** at these charts:*

- *Sprinkler Hazard Categories; Table 1012.2.1*
- *Means of Egress Hazard Categories; Table 1012.4*
- *Heights and Areas Hazard Categories; Table 1012.5*
- *Exposure of Exterior Walls Hazard Categories; Table 1012.6*

BASIC BUILDING DATA

Construction Type:

See North Carolina Building Code chapter 6:

- *602.2; Types I and II*
- *602.3; Type III*
- *602.4; Type IV*
- *602.5; Type V*

Sprinklers:

See North Carolina Building Code chapter 9, section 903. If the fire area for the occupancy classification meets the square footage, fire sprinklers will have to be installed. If none or none required, enter "N/A"

Standpipes:

See North Carolina Building Code chapter 9, section 905. If none or none required, enter "N/A"

Primary Fire District:

Flood Hazard Area:

You can find if your property is in the Fire District by visiting: (If not in district, enter "NO"

<https://www.fayettevillenc.gov/city-services/development-services/permitting-inspections/guidance-documents>

To see if the property is in a designated flood hazard area visit: (if not in flood hazard area, enter "NO"

<https://www.fayettevillenc.gov/city-services/public-services/engineering/stormwater>

Special Inspections Required:

See North Carolina Building Code chapter 17 to see if a specialized engineering professional is required to inspect a particular component, element, and/or system of your project. If yes, then list the system, code section, and professional or firm doing the inspection. If none, then enter "N/A".

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 rd Floor			
2 nd Floor			
Mezzanine			
1 st Floor			
Basement			
TOTAL			

Enter the square footage into the appropriate section. If none, enter "0"

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ALLOWABLE AREA

Primary Occupancy Classification(s):

See North Carolina Building Code chapter 3

Accessory Occupancy Classification(s):

See North Carolina Building Code chapter 3 and section 508.2. If none, enter "N/A"

Incidental Uses (Table 509):

See North Carolina Building Code chapter 5, section 509, Table 509. If none, enter "N/A"

Special Uses (Chapter 4 – List Code Sections):

See North Carolina Building Code 4. Example: If your project includes Hazardous Materials, you would enter NCBC section 414. If none, enter "N/A"

Special Provisions: (Chapter 5 – List Code Sections):

See North Carolina Building Code chapter 5. Example: If your project includes mixed-use occupancy classifications, you would enter NCBC section 508. If none, enter "N/A"

Mixed Occupancy: Separation: Exception:

See North Carolina Building Code chapter 5, section 508, Table 508.4 for separation requirements. This refers to fire-rated assemblies such as walls, floors, ceilings, etc. If none, enter "N/A". If there is, then enter the required rating. It is best to ensure that any existing walls, floors, ceilings, etc. that will be required to be rated are rated on site as this may add unexpected costs to your project.

Select one

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \dots = \underline{\hspace{2cm}} \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 ⁴ AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3}

¹ Frontage area increases from Section 506.3 are computed thus:
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
 b. Total Building Perimeter = _____ (P)
 c. Ratio (F/P) = _____ (F/P)
 d. W = Minimum width of public way = _____ (W)
 e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30 = \text{_____} (\%)$

² Unlimited area applicable under conditions of Section 507.
³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
⁴ The maximum area of open parking garages must comply with Table 406.5.4.
⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

This area is generally used for new construction. If it does not apply, enter "N/A"

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ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE ¹
Building Height in Feet (Table 504.3) ²			
Building Height in Stories (Table 504.4) ³			

¹ Provide code reference if the “Shown on Plans” quantity is not based on Table 504.3 or 504.4.

² The maximum height of air traffic control towers must comply with Table 412.3.1.

³ The maximum height of open parking garages must comply with Table 406.5.4.

See North Carolina Chapter 5 Table 504.3/ 504.4. This is generally for new construction however; the RISK CATEGORY for building heights in the North Carolina Existing Building Code (Table 1012.5) may prevent you from using an existing property for your project.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
		REQ'D	PROVIDED (w/_____* REDUCTION)				
Structural Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							

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Occupancy/Fire Barrier Separation						
Party/Fire Wall Separation						
Smoke Barrier Separation						
Smoke Partition						
Tenant/Dwelling Unit/ Sleeping Unit Separation						
Incidental Use Separation						

* Indicate section number permitting reduction

See North Carolina Building Code chapter 7. Enter the distance and fire ratings in the appropriate section. All fire rated assemblies and/or penetrations should include a copy of the UL spec sheet in the plan package.

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

See North Carolina Building Code chapter 7, Table 705.8. This section determines the distance to property lines and due to the distance how many windows and doors may be on the building.

LIFE SAFETY SYSTEM REQUIREMENTS

- Emergency Lighting: *North Carolina Building Code section 1008*
- Exit Signs: *North Carolina Building Code section 1013*
- Fire Alarm: *North Carolina Building Code section 907*
- Smoke Detection Systems: *North Carolina Building Code chapter 9*
- Carbon Monoxide Detection: *North Carolina Building Code section 915*

Enter "Yes" if these items are present or will be installed for the project.

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____

- Fire and/or smoke rated wall locations (Chapter 7)
- Assumed and real property line locations
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
- Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- Occupant loads for each area (Table 1004.1.2)
- Exit sign locations (1013)
- Exit access travel distances (1017)
- Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- Dead end lengths (1020.4)
- Clear exit widths for each exit door (1007)
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- Actual occupant load for each exit door

APPENDIX B GUIDANCE FORM. NOT FOR SUBMITTAL PURPOSES

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- A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- Location of doors with panic hardware (1010.1.10)
- Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- Location of doors with electromagnetic egress locks (1010.1.9.9)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1030)
- The square footage of each fire area (202)
- The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- Note any code exceptions or table notes that may have been utilized regarding the items above

Select each applicable item and have shown on the plan package.

ACCESSIBLE DWELLING UNITS

(SECTION 1107)

UNIT CLASSIFICATION	TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

This section is applicable to apartments, hotels, etc. Enter "N/A" if not apartments, hotels, etc. See North Carolina Building Code Table 1107

ACCESSIBLE PARKING

(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	96" SPACES	132" SPACES	
TOTAL					

See North Carolina Building Code section 1106.1

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**PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)**

USE		WATERCLOSETS			URINALS	LAVATORIES			SHOWERS /TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE	EXIST ³ G										
	NEW										
	REQ ³ D										

See North Carolina Building Code Chapter 29. This area cannot be blank or N/A.

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

PLEASE CONTACT THE CITY OF FAYETTEVILLE TO SEE IF ANY SPECIAL APPROVALS ARE REQUIRED.

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ENERGY SUMMARY

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: Select one

Exempt Building: Select one Provide code or statutory reference:

Climate Zone: Select one

Method of Compliance: Select one (If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)

Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Skylights in each assembly:
U-Value of skylight:
total square footage of skylights in each assembly:

Exterior Walls (each assembly)

Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Openings (windows or doors with glazing)
U-Value of assembly:
Solar heat gain coefficient:
projection factor:
Door R-Values:

Walls below grade (each assembly)

Description of assembly:
U-Value of total assembly:
R-Value of insulation:

Floors over unconditioned space (each assembly)

Description of assembly:
U-Value of total assembly:
R-Value of insulation:

Floors slab on grade

Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Horizontal/vertical requirement:
slab heated:

This information can be filled out by referencing the North Carolina Energy Conservation Code or submit a COMCHECK from: https://www.energycodes.gov/comcheck

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2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

STRUCTURAL DESIGN

(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_s) Select one
Seismic (I_E) Select one

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf

Ground Snow Load: _____ psf

Wind Load: Ultimate Wind Speed _____ mph (ASCE-7)
Exposure Category Select one

SEISMIC DESIGN CATEGORY: Select one

Provide the following Seismic Design Parameters:

Risk Category (Table 1604.5) Select one

Spectral Response Acceleration S_s _____ %g S₁ _____ %g

Site Classification (ASCE 7) Select one

Data Source: Select one

Basic structural system Select one

Analysis Procedure: Select one

Architectural, Mechanical, Components anchored? Select one

LATERAL DESIGN CONTROL: Select one

SOIL BEARING CAPACITIES:

Select one _____ psf

Pile size, type, and capacity _____

See North Carolina Building Code chapter 16.

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**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb: _____
summer dry bulb: _____

Interior design conditions

winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditioning System

Unitary

description of unit: _____
heating efficiency: _____
cooling efficiency: _____
size category of unit: _____

Boiler

Size category. If oversized, state reason.: _____

Chiller

Size category. If oversized, state reason.: _____

List equipment efficiencies: _____

This section can be filled out using the ACCA Manual N or other accepted engineering practice. If no new mechanical systems are to be installed on an existing project, then enter "N/A". Please note that the ventilation will have to be updated in accordance to the North Carolina Mechanical Code section 403.

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**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Select one

Lighting schedule (each fixture type)

- lamp type required in fixture
- number of lamps in fixture
- ballast type used in the fixture
- number of ballasts in fixture
- total wattage per fixture
- total interior wattage specified vs. allowed (whole building or space by space)
- total exterior wattage specified vs. allowed

**Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)**

- C406.2 More Efficient HVAC Equipment Performance
- C406.3 Reduced Lighting Power Density
- C406.4 Enhanced Digital Lighting Controls
- C406.5 On-Site Renewable Energy
- C406.6 Dedicated Outdoor Air System
- C406.7 Reduced Energy Use in Service Water Heating

See North Carolina Energy Conservation Code

The City of Fayetteville cannot fill this form out for you, only guide you to where you can find the information.