



BUILDING CODE SUMMARY FOR ALL NEW COMMERCIAL CONSTRUCTION PROJECTS

Project Name: _____
 Address: _____ Zip Code _____
 Owner: _____ Phone # (_____) _____ - _____

WHO PREPARED THE PLAN PACKAGE?

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

Check Which Codes Apply:

2018 NC BUILDING CODE:

<input type="radio"/> Building	<input type="radio"/> Electrical	<input type="radio"/> Fire
<input type="radio"/> Mechanical	<input type="radio"/> Plumbing	<input type="radio"/> Alternative Method*

***Alternative Method must be a recognized engineering method and all information submitted with this plan package.**

BASIC BUILDING DATA

You can view the North Carolina Technical Building Codes at: <https://www.ncosfm.gov/codes/codes-current-and-past>

Construction Type : check which one applies, there can only be one.

See North Carolina Building Code Chapter 6

- Type I construction (602.2): Type I construction is non-combustible building materials. See also section 603
- Type II construction (602.2): Type II construction is non-combustible building materials. See also section 603
- Type III construction (602.3): Type III construction is exterior walls are constructed of non-combustible materials and interior construction is of any material allowed by code.
- Type IV construction (602.4): Type IV construction uses HEAVY TIMBER building materials. Heavy Timber is not nominal graded lumber.
- Type V construction (602.5): Type V construction uses any building material allowed by code.

Will Sprinklers be installed?: _____ Will Standpipes be installed?: _____

Is the project located in the City of Fayetteville’s Fire District?: _____ You can contact the City of Fayetteville’s Planning and Zoning Division at (910) 433- 1612 for more information.

Is the project in the City of Fayetteville’s Historic District(s)?: _____ You can contact the City of Fayetteville’s Planning and Zoning Division at (910) 433- 1612 for more information.

Is the project in a designated Flood Hazard Area?: _____ You can contact the City of Fayetteville’s Engineering Division at (910) 433- 1648 for more information.

Are Special Inspections Required?: _____

See North Carolina Building Code Chapter 17

Gross Building Area Table in Square Feet (length x width)

1st Floor	
2nd Floor	
3rd Floor	
4th Floor	
5th Floor	
6th Floor	
Mezzanine	
Basement	
Total	

- **If more floors are part of the project, please list on plan package**

Primary Occupancy Classification(s): See North Carolina Building Code Chapter 3 Check one

<input type="radio"/> A-1 303.2	<input type="radio"/> A-2 303.3	<input type="radio"/> A-3 303.4	<input type="radio"/> A-4 303.5	<input type="radio"/> A-5 303.6	<input type="radio"/> B 304.1
<input type="radio"/> E 305.1	<input type="radio"/> E Day care 305.2	<input type="radio"/> F-1 306.2	<input type="radio"/> F-2 306.3	<input type="radio"/> H-1 307.3	<input type="radio"/> H-2 307.4
<input type="radio"/> H-3 307.5	<input type="radio"/> H-4 307.6	<input type="radio"/> H-5 307.7	<input type="radio"/> I-1 308.1	<input type="radio"/> I-2 308.4	<input type="radio"/> I-3 308.5
<input type="radio"/> I-4 308.6	<input type="radio"/> M 309.1	<input type="radio"/> R-1 310.3	<input type="radio"/> R-2 310.4	<input type="radio"/> R-3 310.5	<input type="radio"/> R-4 310.6
<input type="radio"/> S-1 311.2	<input type="radio"/> S-2 311.3	<input type="radio"/> U 312.1			

Accessory Occupancy Classification(s): Select one or more NOT APPLICABLE

<input type="radio"/> A-1 303.2	<input type="radio"/> A-2 303.3	<input type="radio"/> A-3 303.4	<input type="radio"/> A-4 303.5	<input type="radio"/> A-5 303.6	<input type="radio"/> B 304.1
<input type="radio"/> E 305.1	<input type="radio"/> E Day care 305.2	<input type="radio"/> F-1 306.2	<input type="radio"/> F-2 306.3	<input type="radio"/> H-1 307.3	<input type="radio"/> H-2 307.4
<input type="radio"/> H-3 307.5	<input type="radio"/> H-4 307.6	<input type="radio"/> H-5 307.7	<input type="radio"/> I-1 308.1	<input type="radio"/> I-2 308.4	<input type="radio"/> I-3 308.5
<input type="radio"/> I-4 308.6	<input type="radio"/> M 309.1	<input type="radio"/> R-1 310.3	<input type="radio"/> R-2 310.4	<input type="radio"/> R-3 310.5	<input type="radio"/> R-4 310.6
<input type="radio"/> S-1 311.2	<input type="radio"/> S-2 311.3	<input type="radio"/> U 312.1			

Incidental Uses (Table 509): _____

Special Uses (Chapter 4 – List Code Sections): _____

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

Mixed Occupancy: YES / NO See North Carolina Building Code Chapter 3 and section 508; table 508.4

Separation of Occupancies :

<input type="radio"/> 1 hour	<input type="radio"/> 2 hour	<input type="radio"/> 3 hour
<input type="radio"/> 4 hour	<input type="radio"/> Non-Separated Mix Use 508.3	

ALLOWABLE AREA

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

$$\text{_____} + \text{_____} + \dots = \text{_____} \leq 1.00$$

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.

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.

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							
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

PERCENTAGE OF WALL OPENING CALCULATIONS
(DOORS, WINDOWS, ETC. IN EXTERIOR WALLS)

SEE NORTH CAROLINA BUILDING CODE SECTION 705

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

LIFE SAFETY SYSTEM REQUIREMENTS

- Emergency Lighting: see 1008.3 YES / NO
 Exit Signs: see 1013 YES / NO
 Fire Alarm: see 907.2 YES / NO
 Smoke Detection Systems: see 907.2.1 to 907.8 YES / NO
 Carbon Monoxide Detection: see 915 YES / NO

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____

- Fire and/or smoke rated wall locations (Chapter 7)
- Assumed and real property line locations (if not on the site plan)
- 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
- 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
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- Actual occupant load for each exit door
- 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

You can submit a complete and approved COMCHECK in lieu of filling out the below. COMCHECK's can be found at: <https://www.energycodes.gov/comcheck>

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: _____

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 _____

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: _____

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
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