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:
Owner/Authorized Agent: Phone # ( ) - E-Mail
Owned By: City/County Private State
Code Enforcement Jurisdiction:

CONTACT:

<table>
<thead>
<tr>
<th>DESIGNER</th>
<th>FIRM</th>
<th>NAME</th>
<th>LICENSE #</th>
<th>TELEPHONE #</th>
<th>E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural</td>
<td></td>
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<tr>
<td>Civil</td>
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<tr>
<td>Electrical</td>
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<td>Fire Alarm</td>
<td></td>
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<tr>
<td>Plumbing</td>
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<td>Mechanical</td>
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<tr>
<td>Sprinkler- Standpipe</td>
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<tr>
<td>Structural</td>
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<tr>
<td>Retaining Walls &gt;5’ High</td>
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<tr>
<td>Other</td>
<td></td>
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</tr>
</tbody>
</table>

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

2018 NC BUILDING CODE:
- [ ] New Building
- [ ] Addition
- [ ] Renovation
- [ ] 1st Time Interior Completion
- [ ] Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
- [ ] Phased Construction - Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: EXISTING:
- [ ] Prescriptive
- [ ] Repair
- [ ] Chapter 14
- [ ] Alteration: Level I
- [ ] Level II
- [ ] Level III
- [ ] Historic Property
- [ ] Change of Use

CONSTRUCTED: (date) CURRENT OCCUPANCY(S) (Ch. 3):
RENOVATED: (date) PROPOSED OCCUPANCY(S) (Ch. 3):

RISK CATEGORY (Table 1604.5): Current: [ ] I [ ] II [ ] III [ ] IV
Proposed: [ ] I [ ] II [ ] III [ ] IV

BASIC BUILDING DATA

<table>
<thead>
<tr>
<th>Construction Type:</th>
<th>I-A</th>
<th>II-A</th>
<th>III-A</th>
<th>IV</th>
<th>V-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>(check all that apply)</td>
<td>I-B</td>
<td>II-B</td>
<td>III-B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sprinklers: [ ] No [ ] Partial [ ] Yes [ ] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
Standpipes: [ ] No [ ] Yes [ ] Class I [ ] II [ ] III [ ] Wet [ ] Dry
Fire District: [ ] No [ ] Yes [ ] Flood Hazard Area: [ ] No [ ] Yes

Special Inspections Required: [ ] No [ ] Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)
### Gross Building Area Table

<table>
<thead>
<tr>
<th>FLOOR</th>
<th>EXISTING (SQ FT)</th>
<th>NEW (SQ FT)</th>
<th>SUB-TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Floor</td>
<td></td>
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</tr>
<tr>
<td>2nd Floor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mezzanine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Floor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ALLOWABLE AREA

**Primary Occupancy Classification(s):**
- Business: [ ]
- Educational: [ ]
- Factory: [ ] F-1 Moderate [ ] F-2 Low
- Hazardous: [ ] H-1 Detonate [ ] H-2 Deflagrate [ ] H-3 Combust [ ] H-4 Health [ ] H-5 HPM
- Institutional: [ ] I-1 Condition [ ] 1 [ ] 2
  - I-2 Condition: [ ] 1 [ ] 2
  - I-3 Condition: [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
  - I-4
- Mercantile: [ ]
- Residential: [ ] R-1 [ ] R-2 [ ] R-3 [ ] R-4
- Storage: [ ] S-1 Moderate [ ] S-2 Low [ ] High-piled
  - Parking Garage: [ ] Open [ ] Enclosed [ ] Repair Garage
- Utility and Miscellaneous: [ ]

**Accessory Occupancy Classification(s):**

**Incidental Uses (Table 509):**

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

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

**Mixed Occupancy:** [ ] No [ ] Yes
- Separation: _____ Hr.
- Exception: _____________________

[ ] Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

[ ] Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

\[
\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1
\]
\[
\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} + \ldots = \frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1.00
\]
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 \( I_f = 100\frac{F/P - 0.25}{30} \times W/30 = \) _______ (%)

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

<table>
<thead>
<tr>
<th>Building Height in Feet (Table 504.3) ²</th>
<th>ALLOWABLE</th>
<th>SHOWN ON PLANS</th>
<th>CODE REFERENCE ¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Height in Stories (Table 504.4) ³</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>BUILDING ELEMENT</th>
<th>FIRE SEPARATION DISTANCE (FEET)</th>
<th>RATING</th>
<th>PROVIDED (W/_________* REDUCTION)</th>
<th>DETAIL # AND SHEET #</th>
<th>DESIGN # FOR RATED ASSEMBLY</th>
<th>SHEET # FOR RATED PENETRATION</th>
<th>SHEET # FOR RATED JOINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Frame, including columns, girders, trusses</td>
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<td>Including supporting beams and joists</td>
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<td>Roof Construction, including supporting beams and joists</td>
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<td>Columns Supporting Roof</td>
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<td>Shaft Enclosures - Exit</td>
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<td>Shaft Enclosures - Other</td>
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<td>Occupancy/Fire Barrier Separation</td>
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<td>Party/Fire Wall Separation</td>
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<td>Smoke Partition</td>
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<tr>
<td>Tenant/Dwelling Unit/ Sleeping Unit Separation</td>
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<td>Incidental Use Separation</td>
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</tbody>
</table>

* Indicate section number permitting reduction
PERCENTAGE OF WALL OPENING CALCULATIONS

<table>
<thead>
<tr>
<th>FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES</th>
<th>DEGREE OF OPENINGS PROTECTION (TABLE 705.8)</th>
<th>ALLOWABLE AREA (%)</th>
<th>ACTUAL SHOWN ON PLANS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

LIFE SAFETY SYSTEM REQUIREMENTS

- Emergency Lighting:  
  - No  
  - Yes
- Exit Signs:  
  - No  
  - Yes
- Fire Alarm:  
  - No  
  - Yes
- Smoke Detection Systems:  
  - No  
  - Yes  
  - Partial _______
- Carbon Monoxide Detection:  
  - No  
  - Yes

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
ACCESSIBLE DWELLING UNITS
(SECTION 1107)

<table>
<thead>
<tr>
<th>Unit Classification</th>
<th>Total Units</th>
<th>Accessible Units Required</th>
<th>Accessible Units Provided</th>
<th>Type A Units Required</th>
<th>Type A Units Provided</th>
<th>Type B Units Required</th>
<th>Type B Units Provided</th>
<th>Total Accessible Units Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

ACCESSIBLE PARKING
(SECTION 1106)

<table>
<thead>
<tr>
<th>Lot or Parking Area</th>
<th>Total # of Parking Spaces</th>
<th># of Accessible Spaces Provided</th>
<th>Total # Accessible Provided</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required</td>
<td>96” Spaces</td>
<td>132” Spaces</td>
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TOTAL

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

<table>
<thead>
<tr>
<th>Use</th>
<th>Water Closets</th>
<th>Urinals</th>
<th>Lavatories</th>
<th>Showers / Tubs</th>
<th>Drinking Fountains</th>
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<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Unisex</td>
<td>Male</td>
<td>Female</td>
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<td>Existing’g</td>
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<td>Req’d</td>
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</tbody>
</table>

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)
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:  □ No  □ Yes (The remainder of this section is not applicable)

Exempt Building:  □ No  □ Yes (Provide code or statutory reference): ______________________

Climate Zone:  □ 3A  □ 4A  □ 5A

Method of Compliance: Energy Code  □ Performance  □ Prescriptive
ASHRAE 90.1  □ Performance  □ Prescriptive
(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: 

<table>
<thead>
<tr>
<th>Importance Factors:</th>
<th>Snow ($I_S$)</th>
<th>Seismic ($I_E$)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Live Loads:</td>
<td>Roof</td>
<td>Mezzanine</td>
<td>Floor</td>
</tr>
<tr>
<td></td>
<td>_______ psf</td>
<td>_______ psf</td>
<td>_______ psf</td>
</tr>
<tr>
<td>Ground Snow Load:</td>
<td>_______ psf</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wind Load:  
Ultimate Wind Speed _______ mph (ASCE-7)  
Exposure Category _______  

SEISMIC DESIGN CATEGORY:  

Provide the following Seismic Design Parameters:  

- Risk Category (Table 1604.5)  
  - Table: I, II, III, IV  
- Spectral Response Acceleration:  
  - $S_S$ _______ %g  
  - $S_1$ _______ %g  
- Site Classification (ASCE 7):  
  - A, B, C, D, E, F  
- Data Source:  
  - Field Test, Presumptive, Historical Data  
- Basic structural system:  
  - Bearing Wall, Dual w/Special Moment Frame  
  - Building Frame, Dual w/Intermediate R/C or Special Steel  
  - Moment Frame, Inverted Pendulum  
- Analysis Procedure:  
  - Simplified, Equivalent Lateral Force, Dynamic  
- Architectural, Mechanical, Components anchored?  
  - Yes, No  

LATERAL DESIGN CONTROL:  
Earthquake _______  
Wind _______  

SOIL BEARING CAPACITIES:  

Field Test (provide copy of test report) _______ psf  
Presumptive Bearing capacity _______ 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: ___________
ELECTRICAL SYSTEM AND EQUIPMENT

**Method of Compliance:**
- Energy Code
- ASHRAE 90.1

**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