

**2012 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 \_\_\_\_\_  
 Proposed Use: \_\_\_\_\_  
 Owner/Authorized Agent: \_\_\_\_\_ Phone # ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_ E-Mail \_\_\_\_\_  
 Owned By:  City/County  Private  State  
 Code Enforcement Jurisdiction:  City \_\_\_\_\_  County \_\_\_\_\_  State

**PROJECT SUMMARY**

Building description: \_\_\_\_\_  
 \_\_\_\_\_

Scope of work details: (If phased construction, please see plan submittal guidelines.) \_\_\_\_\_  
 \_\_\_\_\_

Code Compliance Summary: \_\_\_\_\_  
 \_\_\_\_\_

Alternative Means of Compliance Request: \_\_\_\_\_  
 \_\_\_\_\_

Industrial equipment with declaration document attached. [See [www.Meckpermit.com](http://www.Meckpermit.com) (Electrical Services)]

RTAP (Revisions to approved plans.) [See [www.Meckpermit.com](http://www.Meckpermit.com) (Commercial Plan Review Services)]

Date of Preliminary Review \_\_\_\_\_

**LEAD DESIGN PROFESSIONAL:** \_\_\_\_\_

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

**2012 EDITION OF NC CODE FOR:**  New Construction  Addition  Upfit

**EXISTING:**  Reconstruction  Alteration  Repair  Renovation

**CONSTRUCTED:** (date) \_\_\_\_\_ **ORIGINAL USE(S)** (Ch. 3): \_\_\_\_\_

**RENOVATED:** (date) \_\_\_\_\_ **CURRENT USE(S)** (Ch. 3): \_\_\_\_\_

**PROPOSED USE(S)** (Ch. 3): \_\_\_\_\_

Building Code:  2012 North Carolina State Building Code (NCSBC)  
 2009 NC Rehab Code  2012 Chapter 34 (attach summary)  
 1995 Existing Building Code Vol. 9

New Building:  New building  Shell building  
 First time interior completion (upfit)  
 Addition

Existing Building:  Change of use/occupancy  
 Building/tenant space interior completion (renovation)

Please see 3411 NCSBC for compliance for Accessibility for Existing Buildings. A letter from the designer will be required to be attached or reproduced on the plans to verify how compliance will be achieved.

Year of construction \_\_\_\_\_  Original use \_\_\_\_\_

**2009 NC REHAB CODE Information:** Scope of work / work area must be listed and delineated on the plans.

Check all that apply:  Repair  Renovation  Alteration  Reconstruction  Change of use  Addition

Last known legal occupancy use \_\_\_\_\_ **Historic Property:** Yes  No

**Original Building Construction Date:** \_\_\_\_\_ **Date of Preliminary Meeting** \_\_\_\_\_

**Justifications for using the REHAB code:**

\_\_\_\_\_  
 \_\_\_\_\_

**Reviewers Notes for Field Inspector:**

\_\_\_\_\_  
 \_\_\_\_\_

**BASIC BUILDING DATA**

**Construction Type:**  I-A  II-A  III-A  IV  V-A  
 (check all that apply)  I-B  II-B  III-B  V-B

**Sprinklers:**  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D

**Standpipes:**  No  Yes Class  I  II  III  Wet  Dry

**Fire District:**  No  Yes (Primary) **Flood Hazard Area:**  No  Yes

**Building Height:** (feet) \_\_\_\_\_

**Gross Building Area:**

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
6 <sup>th</sup> Floor			
5 <sup>th</sup> Floor			
4 <sup>th</sup> Floor			
3 <sup>rd</sup> Floor			
2 <sup>nd</sup> Floor			
Mezzanine			
1 <sup>st</sup> Floor			
Basement			
TOTAL			

**ALLOWABLE AREA**

**Occupancy:**

Assembly (303)  A-1  A-2  A-3  A-4  A-5  
 Business (304)   
 Educational (305)   
 Factory (306)  F-1 Moderate  F-2 Low

- Hazardous (307)  H-1 Detonate  H-2 Deflagrate  H-3 Combust  H-4 Health  H-5 HPM  
 Institutional (308)  I-1  I-2  I-3  I-4  
     I-3 Condition  1  2  3  4  5  
 Mercantile (309)   
 Residential (310)  R-1  R-2  R-3  R-4  
 Storage (311)  S-1 Moderate  S-2 Low  High-piled  
      Parking Garage  Open  Enclosed  Repair Garage  
 Utility and Miscellaneous (312)

**Accessory Occupancies:**

- Assembly  A-1  A-2  A-3  A-4  A-5  
 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  I-2  I-3  I-4  
     I-3 Condition  1  2  3  4  5  
 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

**Incidental Uses (Table 508.2.5):**

- Furnace room where any piece of equipment is over 400,000 Btu per hour input
- Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower
- Refrigerant machine room
- Hydrogen cutoff rooms, not classified as Group H
- Incinerator rooms
- Paint shops, not classified as Group H, located in occupancies other than Group F
- Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy
- Laundry rooms over 100 square feet
- Group I-3 cells equipped with padded surfaces
- Group I-2 waste and linen collection rooms
- Waste and linen collection rooms over 100 square feet
- Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies
- Rooms containing fire pumps
- Group I-2 storage rooms over 100 square feet
- Group I-2 commercial kitchens
- Group I-2 laundries equal to or less than 100 square feet
- Group I-2 rooms or spaces that contain fuel-fired heating equipment

- Special Uses:**  402  403  404  405  406  407  408  409  410  411  412  
 413  414  415  416  417  418  419  420  421  422  423  424  
 425  426  427

- Special Provisions:**  509.2  509.3  509.4  509.5  509.6  509.7  509.8  509.9

**Mixed Occupancy:**  No  Yes Separation: \_\_\_\_\_ Hr. Exception: \_\_\_\_\_

- Incidental Use Separation (508.2.5)  
     This separation is not exempt as a Non-Separated Use (see exceptions).
- 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.

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

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

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 <sup>5</sup> AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1</sup>	(D) AREA FOR SPRINKLER INCREASE <sup>2</sup>	(E) ALLOWABLE AREA OR UNLIMITED <sup>3</sup>	(F) MAXIMUM BUILDING AREA <sup>4</sup>

- <sup>1</sup> Frontage area increases from Section 506.2 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  $I_f = 100 [F/P - 0.25] \times W/30 = \text{_____} (\%)$
- <sup>2</sup> The sprinkler increase per Section 506.3 is as follows:
- a. Multi-story building  $I_s = 200$  percent
  - b. Single story building  $I_s = 300$  percent
- <sup>3</sup> Unlimited area applicable under conditions of Section 507.
- <sup>4</sup> Maximum Building Area = total number of stories in the building x E (506.4).
- <sup>5</sup> The maximum area of open parking garages must comply with Table 406.3.5. The maximum area of air traffic control towers must comply with Table 412.1.2.

**ALLOWABLE HEIGHT**

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
Type of Construction	Type _____		Type _____	
Building Height in Feet		Feet = H + 20' = _____		
Building Height in Stories		Stories + 1 = _____		

**FIRE PROTECTION REQUIREMENTS**

**THIS SECTION REQUIRED TO BE COMPLETED FOR ALL PROJECTS**

Life Safety Plan Sheet #, if Provided \_\_\_\_\_ /

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # 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							
Roof Construction Including supporting beams and joists							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Tenant Separation							
Incidental Use Separation							

\* Indicate section number permitting reduction

**PERCENTAGE OF WALL OPENING CALCULATIONS**

THIS SECTION FOR ADDITIONS, NEW CONSTRUCTION AND CHANGE OF USE

Allowable openings per T705.8

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**WALL LEGENDS**

THIS SECTION REQUIRED TO BE COMPLETED FOR ALL PROJECTS

CHECK IF THE FOLLOWING ARE PRESENT AND INDICATED BY A WALL LEGEND ON ALL PLANS

- Fire Walls 706  Fire Barriers 707  Shaft Enclosure 708  Fire Partitions 709  Smoke Barriers 710  Smoke Partitions 711



**LIFE SAFETY SYSTEM REQUIREMENTS**

THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

- Emergency Lighting: (S1006)  No  Yes  
Exit Signs: (S1011)  No  Yes  
Fire Alarm: (S907, NFPA 72-07)  No  Yes  
Smoke Detection Systems: (S907)  No  Yes  Partial \_\_\_\_\_  
Panic Hardware: (S1008.1.10)  No  Yes  
Life safety systems generator:(S2702.2)  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
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
- Existing structures within 30' of the proposed building
- Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)
- Occupant loads for each area
- Exit access travel distances (1016)
- Common path of travel distances (1014.3 & 1028.8)
- Dead end lengths (1018.4)
- Clear exit widths for each exit door
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
- 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 (1008.1.10)
- Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
- Location of doors with electromagnetic egress locks (1008.1.9.8)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1029)
- The square footage of each fire area (902)
- The square footage of each smoke compartment (407.4)
- Note any code exceptions or table notes that may have been utilized regarding the items above

**EXIT REQUIREMENTS**

THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

**NUMBER AND ARRANGEMENT OF EXITS**

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM <sup>2</sup> NUMBER OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS <sup>1,3</sup> (SECTION 1015.2)	
	REQUIRED T1021.2	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS

<sup>1</sup> Corridor dead ends (Section 1018.4)

<sup>2</sup> Buildings with single exits (Table 1021.2), Spaces with one means of egress (Table 1015.1)

<sup>3</sup> Common Path of Travel (Section 1014.3)

**OCCUPANT LOAD AND EXIT WIDTH**

THIS SECTIONS IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

USE GROUP OR SPACE DESCRIPTION <sup>7</sup>	(a)	(b)	CALCULATED OCCUPANT LOAD (a÷b)	(c)		EXIT WIDTH (in) <sup>2,3,4,5,6</sup>			
	AREA <sup>1</sup> sq. ft.	AREA <sup>1</sup> PER OCCUPANT		EGRESS WIDTH PER OCCUPANT (SECTION 1005.1)		REQUIRED WIDTH (SECTION 1005.1) (a÷b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
				0.3	0.2				

<sup>1</sup> See Table 1004.1.1 to determine whether net or gross area is applicable.

See definition "Area, Gross" and "Area, Net" (Section 1002)

<sup>2</sup> Minimum stairway width (Section 1009.1); min. corridor width (Section 1018.2); min. door width (Section 1008.1.1)

<sup>3</sup> Minimum width of exit passageway (Section 1023.2)

<sup>4</sup> See Section 1004.5 for converging exits.

<sup>5</sup> The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)

<sup>6</sup> Assembly occupancies (Section 1028)

<sup>7</sup> Spaces within occupancies or use groups shall be calculated independently. (Ex. Lobbies, lounges, break rooms, conference rooms.)

**ACCESSIBLE DWELLING UNITS**

(SECTION 1107)

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

**ACCESSIBLE PARKING  
(SECTION 1106)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH		
				132" ACCESS AISLE	8' ACCESS AISLE	
<b>TOTAL</b>						

**STRUCTURAL DESIGN**

**DESIGN LOADS:**

**Importance Factors:** Wind ( $I_w$ ) \_\_\_\_\_  
 Snow ( $I_s$ ) \_\_\_\_\_  
 Seismic ( $I_E$ ) \_\_\_\_\_

**Live Loads:** Roof \_\_\_\_\_ psf  
 Mezzanine \_\_\_\_\_ psf  
 Floor \_\_\_\_\_ psf

**Ground Snow Load:** \_\_\_\_\_ psf

**Wind Load:** Basic Wind Speed \_\_\_\_\_ mph (ASCE-7)  
 Exposure Category \_\_\_\_\_  
 Wind Base Shears (for MWFRS)  $V_x =$  \_\_\_\_\_  $V_y =$  \_\_\_\_\_

**SEISMIC DESIGN CATEGORY:**  A  B  C  D

Provide the following Seismic Design Parameters:

**Occupancy Category** (Table 1604.5)  I  II  III  IV

**Spectral Response Acceleration**  $S_s$  \_\_\_\_\_ %g  $S_1$  \_\_\_\_\_ %g

**Site Classification** (Table 1613.5.2)  A  B  C  D  E  F

Data Source:  Field Test  Presumptive  Historical Data

**Basic structural system** (check one)

- Bearing Wall  Dual w/Special Moment Frame
- Building Frame  Dual w/Intermediate R/C or Special Steel
- Moment Frame  Inverted Pendulum

**Seismic base shear:**  $V_x =$  \_\_\_\_\_  $V_y =$  \_\_\_\_\_

**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 \_\_\_\_\_

**SPECIAL INSPECTIONS REQUIRED:**  Yes  No





## ENERGY SUMMARY

### THIS SECTION FOR NEW CONSTRUCTION, ADDITIONS, CHANGE OF USE AND INTERIOR COMPLETION

#### 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.

**Climate Zone:**    3     4     5

#### Method of Compliance:

- Prescriptive    (Energy Code)
- Performance    (Energy Code)
- Prescriptive    (ASHRAE 90.1)
- Performance    (ASHRAE 90.1)

#### THERMAL ENVELOPE

##### 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: \_\_\_\_\_

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**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:** \_\_\_\_\_

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**ELECTRICAL SUMMARY**

**ELECTRICAL SYSTEM AND EQUIPMENT**

**Method of Compliance:**

Energy Code:     Prescriptive     Performance  
ASHRAE 90.1:     Prescriptive     Performance

**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 Prescriptive Compliance**

506.2.1 More Efficient Mechanical Equipment

- 506.2.2 Reduced Lighting Power Density
  - 506.2.3 Energy Recovery Ventilation Systems
  - 506.2.4 Higher Efficiency Service Water Heating
  - 506.2.5 On-Site Supply of Renewable Energy
  - 506.2.6 Automatic Daylighting Control Systems
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