

**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: UNC School of Medicine, Neurosciences Research Building - 7th & 8th Floors for Dermatology  
Address: 115 Mason Farm Road, Chapel Hill Zip Code 27599  
Owner/Authorized Agent: Nathan Harms, AIA Phone # (919) 452-5420 E-Mail nathan.harms@foc.unc.edu  
Owned By: State  
Code Enforcement Jurisdiction: State

**CONTACT:**

DESIGNER FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Lord Aeck Sargent	9674	(919) 929-1400	laeck@lordaekcsargent.com
Civil	N/A			
Electrical	Kramer Engineering	Donna Kramer	014917	(919) 933-3350
Fire Alarm	Kramer Engineering	Donna Kramer	014917	(919) 933-3350
Plumbing	Kramer Engineering	Donna Kramer	014917	(919) 933-3350
Mechanical	Kramer Engineering	Donna Kramer	014917	(919) 933-3350
Sprinkler-Standpipe	Kramer Engineering	Donna Kramer	014917	(919) 933-3350
Structural	N/A			
Retaining Walls >5' High				
Other				

(\*Other\* should include firms and individuals such as trusts, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: Renovation  
2018 NC EXISTING BUILDING CODE: Alteration Level II N/A N/A  
CONSTRUCTED: (date) 2001 CURRENT OCCUPANCY(S) (Ch. 3): (B) Business  
RENOVATED: (date) \_\_\_\_\_ PROPOSED OCCUPANCY(S) (Ch. 3): (B) Business  
OCCUPANCY CATEGORY (Table 1604.5): Current: II Proposed: II

**BASIC BUILDING DATA**  
Construction Type: LA (Original Project info, per 1991 Code, lists Construction Type as Type II)  
Sprinklers: Yes NFPA 13  
Standpipes: Class I - Wet  
Primary Fire District: No Flood Hazard Area: No  
Special Inspections Required: No

**Gross Building Area Table**

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
8th Floor	12,100	6,624 (area of alteration)	12,100
7th Floor	12,100	6,629 (area of alteration)	12,100
6th Floor	12,100		12,100
5th Floor	12,100		12,100
4th Floor	12,100		12,100
3rd Floor	12,100		12,100
2nd Floor	13,006		13,006
Mezzanine			
1st Floor	12,932		12,932
Basement			
TOTAL	98,538	(no new SF added)	98,538

**ALLOWABLE AREA**  
Primary Occupancy Classification(s): Business N/A N/A N/A N/A N/A  
Accessory Occupancy Classification(s): S2-Low Hazard Storage, A-3 (not in area of renovated scope)  
Incidental Uses (Table 509): \_\_\_\_\_  
Special Uses (Chapter 4 - List Code Sections): \_\_\_\_\_  
Special Provisions: (Chapter 5 - List Code Sections): \_\_\_\_\_  
Mixed Occupancy: No Separation: Select one Exception: \_\_\_\_\_  
Select one  
 $\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$   
+ ..... = .....  $\leq 1.00$

**NOT APPLICABLE - BUILDING IS EXISTING TO REMAIN**

STORY	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1</sup>	(D) ALLOWABLE AREA PER STORY OR UNCHANGED <sup>2</sup>

- Frontage area increases from Section 506.2 are computed thus:
  - Perimeter which fronts a public way or open space having 20 feet minimum width = \_\_\_\_\_ (F)
  - Total Building Perimeter = \_\_\_\_\_ (P)
  - Ratio (F/P) = \_\_\_\_\_ (F/P)
  - W = Minimum width of public way = \_\_\_\_\_ (W)
  - Percent of frontage increase  $I = 100(F/P - 0.25) \times W/30 = \dots$  (%)
- Unlimited area applicable under conditions of Section 507.
- Maximum Building Area = total number of stories in the building x D (maximum) stories (506.2).
- The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
- Frontage increase is based on the unsprinklered area value in Table 506.2.

**ALLOWABLE HEIGHT (BUILDING IS EXISTING TO REMAIN)**

Building Height in Feet (Table 504.3)	Unlimited	R (feet)	Table 400, note k, 1991 NCSHC
Building Height in Stories (Table 504.4)			

<sup>1</sup> Provide code reference if the "Shown on Plans" quantity is not based on Table 506.2 or 504.4.

**FIRE PROTECTION REQUIREMENTS (BUILDING IS EXISTING TO REMAIN)**

ROOFING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATIONS	SHEET # FOR RATED JOISTS
Structural Frame, including columns, girders, trusses		3 hour	Existing			
Roofing						
Exterior						
North	3 hour	Existing				
East	3 hour	Existing				
West	3 hour	Existing				
South	3 hour	Existing				
Interior						
Nonbearing Walls and Partitions						
Exterior walls						
North	Non-com	Existing				
East	Non-com	Existing				
West	Non-com	Existing				
South	Non-com	Existing				
Interior walls and partitions	3 hour	Existing (hearing)			Top of Wall (Pressure): G301 W-I-5042: G302	Eng. Judgment (Top of Wall): G301
Floor Construction						
Including supporting beams and joists	2 hour	Existing			C-AJ-5090: G301	
Floor/Ceiling Assembly						
Columns Supporting Floors						
Roof Construction, including supporting beams and joists	1 hour	Existing				
Roof/Ceiling Assembly						
Columns Supporting Roof						
Shaft Enclosures - Exit	2 hour	Existing			W-J-0910: G301 W-I-0889: G301 W-I-5042: G302	
Shaft Enclosures - Other	2 hour	Existing				
Consider Separation						
Occupancy/Fire Barrier Separation	2 hour	Existing				
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 (BUILDING IS EXISTING TO REMAIN - NO NEW OPENINGS BEING PROVIDED)**

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENING PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWING ON PLAN (%)
Existing building to remain		No limit (Existing)	

**LIFE SAFETY SYSTEM REQUIREMENTS (EXISTING BUILDING TO REMAIN)**

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

**LIFE SAFETY PLAN REQUIREMENTS**

- Life Safety Plan Sheet # 05, G10, G11
- Fire escape routes and all locations (1009.1)
  - Egress and fire protection time locations (if not on the site plan)
  - Exterior wall opening areas with respect to distance to assumed property lines (705.8)
  - Occupancy loads for each area and relates to occupant load calculation (Table 1004.1.2)
  - Occupancy loads for each area
  - Exit access travel distances (1017)
  - Common path 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)**

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
N/A							

**ACCESSIBLE PARKING (SECTION 1106)**

TYPE OF PARKING SPACE	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # OF ACCESSIBLE SPACES PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	5' ACCESS AISLE	
N/A						
TOTAL						

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

TYPE	SPACE	FIXTURE	WATERCLOSETS		SHOWERS		LAVATORIES		# OF FIXTURES	DRINKING FOUNTAINS	
			MALE	FEMALE	MALE	FEMALE	MALE	FEMALE			REGULAR
NEW			1	2	1	2	2		N/A	1***	1***
REPAIR											

\*\*Per NC Existing Building Code, Section 810: occupant load was not increased by more than 20%; no additional fixtures required. *Accessibility upgrades are being made to existing restrooms.*  
\*\*\*Drinking fountains are being relocated per this scope of work to provide sufficient clearance for accessible DF.

**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 also be provided. Each Designer shall furnish the required portions of the project information on the plan data. 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 N/A - EXISTING TO REMAIN (no changes)  
Exempt Building: Select one Provide code or statutory reference: \_\_\_\_\_

Climate Zone: 4A  
Method of Compliance: Other - Prescriptive  
(If "Other" specify code here) Applicable requirements of NC Existing Building Code  
THERMAL ENVELOPE (Prescriptive method) N/A - EXISTING TO REMAIN (no changes)

**Roof/Ceiling Assembly (each assembly)**  
Description of assembly: \_\_\_\_\_  
U-Value of assembly: \_\_\_\_\_  
Solar heat gain coefficient: \_\_\_\_\_  
Skylights (each assembly): \_\_\_\_\_  
Area 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 N/A - EXISTING BUILDING TO REMAIN; NO NEW STRUCTURAL MODIFICATIONS  
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

**DESIGN LOADS:**

**Importance Factors:** Snow (Is) Select one  
Seismic (Ie) Select one

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

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

**Wind Load:** Basic 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**  $S_e$  \_\_\_\_\_ %g  
**Site Classification** (ASCE 7) Select one  
Data Source: Select one

2018 NC Administrative Code and Policies

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  
EXISTING BUILDING TO REMAIN**

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

**Building cooling load:** \_\_\_\_\_

**Mechanical System Conditioning System**  
Boiler 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  
EXISTING BUILDING TO REMAIN**

**ELECTRICAL SYSTEM AND EQUIPMENT**

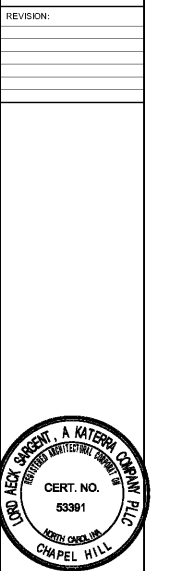
**Method of Compliance: Energy Code - Prescriptive**

**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 \_\_\_\_\_  
*Interior wattage specified = 1797*  
*Interior wattage allowed = 3145*

**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  
*Interior wattage specified = 1797*  
*Interior wattage allowed = 3145*
- 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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**BUILDING CODE SUMMARY**  
SHEET TITLE

UNC SCHOOL OF MEDICINE  
NEUROSCIENCES RESEARCH BUILDING  
SCO PROJECT ID: 11-09861-02G  
7th & 8th FLOORS FOR DERMATOLOGY  
LOCATION: 115 Mason Farm Road, Campus Box 7250  
Chapel Hill, North Carolina, 27599-7250

ISSUE DATE: 09/25/2019  
JOB NO.: 10761-00  
DWG. NO.: G031

09/25/2019

BID SET