



**2012 APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS**

(Includes: New Construction, Upfits, Renovations, Additions)

(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

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

a. Project Information – (Required information for all projects)

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

b. Project Summary/ Alternative Means of Compliance – (Required information for all projects)

Building description: _____

Scope of work details: (If phased construction, please see [plan submittal guidelines](http://www.charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Publications/Documents/psguide.pdf) for submittal requirements.)
<http://www.charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Publications/Documents/psguide.pdf>

Does this project have air rights, easements, an assumed or deeded property line, no build easements or other circumstances similar to the aforementioned? Yes _____ No _____ If yes, please provide a copy of the official documents.

Renovation projects only: If you are using the Performance Compliance Method from Chapter 14 of the NCEBC or NFPA 101 as an alternative for Code compliance please schedule a preliminary review before submitting your project for review. Notes for Plans Examiner and Inspectors: Please ensure Table 1401.7 and 1401.9 from the 2015 NCEBC are on the plans if using Chapter 14 of the NCEBC.

If applicable to your project: Alternative Means of Compliance/Engineering Judgment:
<http://www.charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/CodeInterpretations/Pages/default.aspx> (Approval needed from the Code Administrator is required before submitting)

Check if applicable to your project:

Industrial equipment with declaration document attached. [See www.Meckpermit.com (Electrical Services)]
<http://www.charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Inspections/Trades/Electrical/Documents/IndustrialMachineryFAQ.pdf>

RTAP (Revisions to approved plans.) [See www.Meckpermit.com (Commercial Plan Review Services)]
<http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/PlanReview/Pages/RevisionstoApprovedPlansProcess.aspx>

c. Design Professional Information – (Required Information for all Projects)

LEAD DESIGN PROFESSIONAL: _____

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

d. Type of work being performed – (Required Information for all Projects)

What type of work is being performed?

New Construction:

(A project from the site work through the completion of work required for tenant occupancy) This includes Shell buildings.

Addition: (An Existing Building that is adding heated or unheated space. This could be an addition to the footprint or a vertical expansion)

http://ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/Building/PDFs/Chapter%2020-%20Definitions.pdf

Upfit: (First Time Interior Completion)

(Upfit – the first time interior completion of a virgin (never occupied) shell space in a newly constructed building. The applicant must provide a copy of the approved shell)

Alteration/Renovation: (Previously Occupied Space) This includes Change of Use.

http://ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/Building/PDFs/Chapter%2020-%20Definitions.pdf

e. Code Data - NCBC -- (see section f. for NC Rehab Code or NC Existing Building Code)

- Building Code: 2012 North Carolina State Building Code (NCSBC)
- Check all that apply: New building Shell building
- First time interior completion (upfit)
- Addition

Existing Building Data: (for upfits or additions)

Year of construction _____ Previous use _____

f. 2012 REHAB Code (valid until March 2018) or 2015 NC Existing Building Code

<http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/PlanReview/Pages/NCRehabCode.aspx>

2012 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

Justifications for using the REHAB code:

2015 NC EXISTING BUILDING CODE (NCEBC)

Method of Compliance Prescriptive (Chap 4) Work Area (Chaps 5-13) Performance (Chap 14)

Check all that apply: Repair Alteration Level 1 Alteration Level 2 Alteration Level 3

Change of Occupancy Addition

Alterations / Change of Occupancy projects: Please see Section 410.7, 806, 1012.9 or 1401.2.5 of the NCEBC for Accessibility for Existing Buildings based on the method of compliance. A letter from the designer will be required to be reproduced on the plans to verify how compliance will be achieved. This can be on a plan sheet after the Appendix B.

<http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/PlanReview/Documents/2015%20NCEBC%20Accessibility%20Compliance%20Statement%202016.pdf>

Existing Building Data: (for NC Rehab or NC Existing Building Code)

Last known legal occupancy use _____ Historic Property: Yes No

Original Building Construction Date: _____ Date of Preliminary Meeting _____

Reviewers Notes for Field Inspector: _____

g. Basic Building Data -- (Required information for all projects)

Construction Type: (Table 601) I-A II-A III-A IV-HT V-A
(check all that apply) I-B II-B III-B V-B

Sprinklers: (Section 903) No Partial Yes NFPA 13 NFPA 13R NFPA 13D

Standpipes: (Section 905) No Yes Class I II III Wet Dry NFPA 14

Fire District: <http://charmeck.org/city/charlotte/Fire/Pages/default.aspx> No Yes (Primary) (Appendix D)

Flood Hazard Area: (Appendix G) No Yes

Building Height: (feet) _____ (Table 503) Stories: _____

Gross Building Area:

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

h. Allowable Area / Occupancy Classification -- (Required information for all projects)

Occupancy(s): (Chapter 3)

Assembly (303) A-1 A-2 A-3 A-4 A-5

Business (304) B

Educational (305) E

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) M

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) U

Accessory Occupancies (≤ 10%): (508) If Applicable

- Assembly A-1 A-2 A-3 A-4 A-5
- Business B
- Educational E
- 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 M
- 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 U

Incidental Uses: If applicable- areas with additional requirements (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 Rooms containing Life-Safety generator Rooms containing primary transformers
- 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: If Applicable 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: If Applicable 509.2 509.3 509.4 509.5 509.6 509.7 509.8 509.9

Mixed Occupancy/Use: (506.5) If Applicable 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. If applicable to this project please provide a key plan with all occupancies identified with square footage.

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

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

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

- ¹ 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 $I_f = [F/P - 0.25] \times W/30 = \text{_____} (\%)$
- ² The sprinkler increase per Section 506.3 is as follows:
- Multi-story building $I_s = 200$ percent
 - Single story building $I_s = 300$ percent
- ³ Unlimited area applicable under conditions of Section 507.
- ⁴ Maximum Building Area = total number of stories in the building x E (506.4). Maximum of 3.
- ⁵ 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.

i. Allowable Height (Chapter 5) -- (Required for Additions, New Construction)

	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 = _____		

j. Fire Protection Requirements (Chapter 7) -- (Required Information for all projects)

Please check our Plan Submittal Guidelines if a Life Safety Plan is required for your project.

<http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Publications/Documents/psguide.pdf>

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 (see section 601 - 602 if rated)							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions- (see section 601 - 602 if rated)							
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 than Exit							
Corridor Separation							
Occupancy Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Tenant Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

k. Percentage of Wall Opening Calculations -- (New Construction, Addition and Change of Use)

(Table 705.8)

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

I. Wall Legends – (Required 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 No rated walls are present

http://ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/Building/PDFs/Chapter%207%20-%20Fire%20and%20Smoke%20Protection%20Features.pdf

m. Life Safety Systems (Existing or new systems) -- (Required for all Projects)

- | | | | |
|---|-----------------------------|------------------------------|--|
| Emergency Lighting: (1006) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | |
| Exit Signs: (1011) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | |
| Fire Alarm: (907, NFPA 72-07) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | |
| Smoke Detection Systems: (907) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | <input type="checkbox"/> Partial _____ |
| Panic Hardware: (1008.1.10) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | |
| Life safety systems generator: (2702.2) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | |

n. Life Safety Plan check list for compliance -- (Required for all projects) Check items that are applicable to your project

- 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

o. Exit Requirements—(Required for all Projects)

NUMBER AND ARRANGEMENT OF EXITS

(TABLE 1021.1)

FLOOR, ROOM OR SPACE DESIGNATION,	MINIMUM ² NUMBER OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS ^{1,3} (SECTION 1015.2)	
	REQUIRED T1021.1 (SINGLE EXIT 1021.2)	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

¹ Corridor dead ends (Section 1018.4)

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

³ Common Path of Travel (Section 1014.3)

OCCUPANT LOAD AND EXIT WIDTH

(TABLE 1004.1.1)

USE GROUP OR SPACE DESCRIPTION ⁷	(a)	(b)	(1004.1.1)	(c)		EXIT WIDTH (in) ^{2,3,4,5,6}			
	AREA ¹ sq. ft.	AREA ¹ PER OCCUPANT	CALCULATED OCCUPANT LOAD (a÷b)	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				

¹ See Table 1004.1.1 to determine whether net or gross area is applicable.

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

² Minimum stairway width (Section 1009.1); min. corridor width (Section 1018.2); min. door width (Section 1008.1.1)

³ Minimum width of exit passageway (Section 1023.2)

⁴ See Section 1004.5 for converging exits.

⁵ 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)

⁶ Assembly occupancies (Section 1028)

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

p. Accessible Dwelling Units and sleeping units -- (Only for R-1, R-2 occupancy)

ACCESSIBLE DWELLING UNITS

(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

q. Accessible Parking—(Projects that are New Construction, Additions, Change of Use)

(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	
TOTAL						

r. Structural Design – (Primarily for New Construction, Additions and Change of Use)
If adding dead loads or live loads to the building structural system information in any project shall be required. This information may be located on the structural sheets. The structural sheet must be in the same format as noted in this section. If it is on the structural sheets, please indicate here. (Located on Structural Sheet Number _____: Yes _____ No _____)

DESIGN LOADS:

Importance Factors: (ASCE/SEI 7-05- 11.5) Wind _____
Snow _____
Seismic _____

Live Loads: Roof: (1603.1.2, 1607.11, 1611) _____ psf
Floor: (1603.1.1, 1607.10, T 1607.10) _____ psf
Live load Reductions: (1603.1.1, 1607.9,) _____ psf

Ground Snow Load: (1608.2) _____ psf

Wind Load: Basic Wind Speed: (1609.3) _____ mph (ASCE-7)
Exposure Category (1609.4) _____
Wind Base Shears (for MWFRS)(Engineer Cal's) $V_x = \underline{\hspace{2cm}}$ $V_y = \underline{\hspace{2cm}}$

SEISMIC DESIGN CATEGORY: (1613.1, 1613.5.6) A B C D

Provide the following Seismic Design Parameters:
Occupancy Category: (Table 1604.5) I II III IV
Spectral Response Acceleration: (Engineer cal's) $S_s \underline{\hspace{2cm}} \%g$ $S_1 \underline{\hspace{2cm}} \%g$

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: (Engineer Cal's) $V_x = \underline{\hspace{2cm}}$ $V_y = \underline{\hspace{2cm}}$
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 as a reference document) _____ psf
Presumptive Bearing capacity _____ psf
Pile size, type, and capacity _____

SPECIAL INSPECTIONS REQUIRED: Yes No

s. Special Inspections -- (If applicable to your project)

http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Forms/Documents/SI_Scope.pdf

SCHEDULE OF SPECIAL INSPECTIONS

- No special inspections required for this project Special inspections required

The following sheets comprise the required schedule of Special Inspections for this project. The construction divisions which require special inspections for this project are as follows:

- | | |
|--|---|
| <input type="checkbox"/> IT-1 Verification of Soils | <input type="checkbox"/> IT-10 Inspection of Structural Steel Fabricators |
| <input type="checkbox"/> IT-2 Excavation and Fill | <input type="checkbox"/> IT-11 Structural Masonry |
| <input type="checkbox"/> IT-3 Piling and Drilling Piers | <input type="checkbox"/> IT-12 Welding |
| <input type="checkbox"/> IT-4 Modular Retaining Walls | <input type="checkbox"/> IT-13 High Strength Bolts & Steel Framing Insp. |
| <input type="checkbox"/> IT-5 Reinforced Concrete | <input type="checkbox"/> IT-14 Sprayed Fire-Resistance Materials |
| <input type="checkbox"/> IT-6 Post Tension Slab | <input type="checkbox"/> IT-15 Exterior Insulation and Finish system |
| <input type="checkbox"/> IT-7 Pre-cast Concrete Erection | <input type="checkbox"/> IT-16 Seismic Resistance |
| <input type="checkbox"/> IT-8 Pre-stressed Concrete | <input type="checkbox"/> IT-17 Smoke Control |
| <input type="checkbox"/> IT-9 Inspection of Pre-Cast Fabricators | <input type="checkbox"/> IT-18 Wood |
| | <input type="checkbox"/> IT-19 Special Cases |

Check the above boxes for the special inspection required for this project and list below specific special inspections required under Chapter 17. For questions regarding Special Inspections please see www.Meck-SI.com.

t. Plumbing Fixtures Requirements (New Construction, Additions, Upfits, Alterations and Change of Use or if increasing occupant load)

http://ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/Building/PDFs/Chapter%2029%20-%20Plumbing%20Systems.pdf

If using fixtures one floor above or one floor below, show calculations to justify the count (TABLE 2902.1)

OCCUPANCY USE GROUP AND/OR SPACE DESIGNATION	WATERCLOSETS		URINALS	LAVATORIES		SHOWERS/TUBS	DRINKING FOUNTAINS
	MALE	FEMALE		MALE	FEMALE		
Total Required							
Total Provided							

u. Special Approvals (If applicable to your project)

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

v. Energy Summary (New Construction, Additions, Change of use and upfits)

BUILDING ENVELOPE:

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation 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: (North Carolina Energy Conservation Code NCECC 301.1) 3 4 5
http://ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/Energy/PDFs/Chapter%203%20-%20General%20Requirements.pdf

Method of Compliance:

- Prescriptive (NCECC)
- Performance (NCECC or COMcheck) Report must be reproduced on drawings.
- Prescriptive (ASHRAE 90.1-2010 with addenda 2013 supplement)
- Performance (ASHRAE 90.1-2010)

THERMAL ENVELOPE: (NCECC Chapter 4 and or 5)

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 percentage 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) _____ % of above grade walls
 U-Value of assembly: _____
 Solar heat gain coefficient: _____
 Projection factor: _____
 Door U-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: _____

MECHANICAL SUMMARY (NCECC 503) This information may be located on the mechanical sheets. The mechanical sheet must be in the same format as noted in this section. If it is on the mechanical sheets, please indicate here. (Located on Mechanical Sheet Number ____: Yes ____ No ____)

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone: 3A

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 SUMMARY (NCECC 505) This information may be located on the electrical sheets. The electrical sheet must be in the same format as noted in this section. If it is on the electrical sheets, please indicate here. (Located on Electrical Sheet Number ____: Yes ____ No ____)

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 Required 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
-
-