

**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: NATIONAL GUARD AASF2 - ENERGY SECURITY GENERATOR - HANGER #2
Address: ROWAN COUNTY AIRPORT SALISBURY, NC Zip Code 28147
Owner/Authorized Agent: NCSG / Matt Dobson Phone # (984) 664-6452 E-Mail Matt@ncsg.com
Owned By: State
Code Enforcement Jurisdiction: State

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural					
Civil					
Electrical	PDC, LTD.	Matt Dobson	046804	(919) 720-9989	Matt@pdcengineers.com
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler-Shop					
Structural					
Retaining Walls					
Other					

2018 NC BUILDING CODE: Renovation
2018 NC EXISTING BUILDING CODE: N/A N/A N/A
CONSTRUCTED: (date) _____ CURRENT OCCUPANCY(S) (Ch. 3): _____
RENOVATED: (date) _____ PROPOSED OCCUPANCY(S) (Ch. 3): _____
RISK CATEGORY (Table 1604.5): Current: Select one Proposed: Select one

BASIC BUILDING DATA
Construction Type: II-B
Sprinklers: No
Standpipes: No
Primary Fire District: STATE Flood Hazard Area: No
Special Inspections Required: No

FLOOR	Gross Building Area Table		SUB-TOTAL
	EXISTING (SQ FT)	NEW (SQ FT)	
1 st Floor			
2 nd Floor			
Mezzanine			
1 st Floor	11840		11840
Basement			
TOTAL	11840		11840

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BUILDING ELEMENT	FIRE PROTECTION REQUIREMENTS		REMARKS
	EXISTING	NEW	
Structural Frame, including columns, girders, trusses	0	0	
Roofing	0	0	
Exterior Walls	0	0	
Interior Walls and Partitions	0	0	
Nonbearing Walls and Exterior walls	0	0	
Roofing	0	0	
Interior walls and partitions	0	0	
Floor Construction, including supporting beams and joists	0	0	
Floor Ceiling Assembly	0	0	
Ceiling Supporting Floors	0	0	
Roof Construction, including supporting beams and joists	0	0	
Roof Ceiling Assembly	0	0	
Ceiling Supporting Roof	0	0	
Shelf Enclosure - Exit	0	0	
Shelf Enclosure - Other	0	0	
Corridor Separation	0	0	
Exitways/Door Hardware Separation	0	0	EXISTING, EXISTING
Partitions Wall Separation	0	0	
Smoke Barrier Separation	0	0	
Smoke Partition	0	0	
Tenancy Dwelling Units	0	0	
Staircase Separation	0	0	
Incidental Use Separation	0	0	

* Indicate section number permitting reduction

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ACCESSIBLE DWELLING UNITS (SECTION 1107)	
TOTAL	0
EXISTING	0
NEW	0

ACCESSIBLE PARKING (SECTION 1106)	
TOTAL	0
EXISTING	0
NEW	0

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)	
TOTAL	0
EXISTING	0
NEW	0

SPECIAL APPROVALS	
Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHS, etc., describe below)	

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STRUCTURAL DESIGN**
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:
Importance Factors: Snow (Is) Select one
Seismic (Is) 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 Select one
Site Classification (ASCE 7) Select one
Basic structural system Select one
Analysis Procedure: Select one
Architectural/Mechanical Components Select one

LATERAL DESIGN CATEGORY: Select one
SOIL BEARING CAPACITY: Select one

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ALLOWABLE AREA

Primary Occupancy Classification(s): Storage - S-1
Accessory Occupancy Classification(s): BUSINESS
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 - List Code Sections): EXISTING 412.4 AIRCRAFT HANGER
Special Provisions: (Chapter 5 - List Code Sections): N/A
Mixed Occupancy: Yes Separation: 2 Hr. Exception: _____
Select one:
 $\frac{Actual\ Area\ of\ Occupancy\ A}{Allowable\ Area\ of\ Occupancy\ A} + \frac{Actual\ Area\ of\ Occupancy\ B}{Allowable\ Area\ of\ Occupancy\ B} \leq 1$
 $\frac{6,700\ (STOR)}{17,500} + \frac{5,100\ (BUS)}{23,000} = 0.6046 \leq 1.00$

STORY NO.	DESCRIPTION AND USE	(A) GROSS AREA PER STORY (ACTUAL)	(B) GROSS AREA PER STORY (ALLOWABLE)	(C) AREA FOR FRONTAGE (REQUIRE)	(D) ALLOWABLE AREA PER STORY (MAXIMUM)
1	STOR-BUS	11840	17,500		17,500

1 Frontage increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = (P)
b. Total Building Perimeter = (P)
c. Ratio (F/P) = _____
d. W = Minimum width of public way (ft)
e. Percent of frontage increase $I_f = 100(F/P) \times (W/20) =$ _____ (%)
2 Unlimited area applicable under conditions of Section 507.
3 Maximum Building Area = total number of stories in the building x D (maximum 7 stories) (506.2).
4 The maximum area of open parking garages must comply with Table 406.5.4.
5 Frontage increases based on the suspended area value in Table 506.2.

ALLOWABLE HEIGHT

ALLOWABLE	SHOWN ON PLANS	DEFERRED
Building Height in Feet (Table 504.3) ¹	75	78
Building Height in Stories (Table 504.4) ¹	2	1

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 411.1.
3 The maximum height of open parking garages must comply with Table 406.5.4.

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PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION UNIT (FIRE RESISTANT WALL, PARTITION, GLASS CURTAIN WALL)	PERCENTAGE OF WALL OPENING	ALLOWABLE PERCENTAGE	ACTUAL PERCENTAGE

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: Yes
Exit Signs: Yes
Fire Alarm: Yes
Smoke Detection System: Yes
Carbon Monoxide Detection: Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____
 Fire and smoke load wall diagrams (Table 707.7)
 Egress and travel paths (if not on the site plan)
 Egress and travel paths with respect to assumed property lines (705.8)
 Occupancy load calculations based on a return to occupant load calculation (Table 1004.1.2)
 Exit access travel distances (101)
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(a))
 Egress and travel lengths (1020.4)
 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

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ENERGY SUMMARY - EXISTING

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: Yes (The remainder of this section is not applicable)

Exempt Building: Select one Provide code or statutory reference:
Climate Zone: 3A
Method of Compliance: Energy Code - Prescriptive
(If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)

Roof/Ceiling Assembly (each assembly)
Description of assembly: METAL ROOF SHEATHING, INSULATION, METAL FRAME
U-Value of total assembly: 0.053
R-Value of insulation: R30 (MIN.)
Skylights in each assembly: N/A
U-Value of skylights: N/A
total square footage of skylights in each assembly: N/A

Exterior Walls (OFFICES)
Description of assembly: BRICK, BATT INSULATION, METAL STUDS & GWR
U-Value of total assembly: 0.053
R-Value of insulation: R19
Openings (windows or doors with glazing) 1" INSULATING GLAZING W/ METAL FRAME
U-Value of assembly: 0.59
Solar heat gain coefficient: 0.59
projection factor: 0.13
Door R-Values: 5.26

Exterior Walls (TRUCK BAYS)
Description of assembly: MASONRY CAVITY, INSULATION & METAL FRAME
U-Value of total assembly: 0.10
R-Value of insulation: R10
Openings (windows or doors with glazing) N/A
U-Value of assembly: N/A
Solar heat gain coefficient: N/A
projection factor: N/A
Door R-Values: 5.26

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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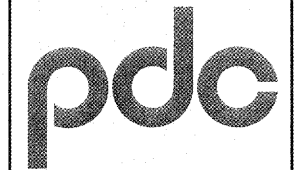
**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN**
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY
ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: 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

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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08/27/2019
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DRAWN BY: MRR CHECKED BY: MRR

PDC 19039 08/27/2019

REVISIONS		
NUMBER	DATE	DESCRIPTION

BID SET

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 C406.7 Reduced Energy Use in Service Water Heating

BUILDING CODE SUMMARY
HANGER #2

BCS2

DEPARTMENT OF PUBLIC SAFETY
NATIONAL GUARD - SALISBURY AASF2
ENERGY SECURITY GENERATOR INSTALLATION
SCO# 18-19692-01A
NORTH CAROLINA NATIONAL GUARD
1235 NATIONAL GUARD RD, SALISBURY, NC 28147