

**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 #1
Address: ROWAN COUNTY AIRPORT SALISBURY, NC Zip Code 28147
Owner/Authorized Agent: NCGI / Matt Dobson Phone # (252) 664-6432 E-Mail: mdo@ncgicons.com
Owned By: State
Code Enforcement Jurisdiction: State

CONTACT:

| DESIGNER | FIRM | NAME | LICENSE # | TELEPHONE # | E-MAIL |
|---------------|-----------|-------------------|-----------|----------------|-----------------------|
| Architectural | | | | | |
| Civil | | | | | |
| Electrical | PDC, LTD. | Maheshwar R. Raju | 046804 | (719) 790-9982 | Mraj@pdcengineers.com |
| Fire Alarm | | | | | |
| Plumbing | | | | | |
| Mechanical | | | | | |
| Structural | | | | | |
| Other | | | | | |

(*Other* should include firms and individuals such as: survey, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: Repealed
2018 NC EXISTING BUILDING CODE: N/A N/A N/A
CONSTRUCTED: (date) 1987 **CURRENT OCCUPANCY(S)** (Ch. 3): S-1
RENOVATED: (date) **PROPOSED OCCUPANCY(S)** (Ch. 3): S-1
RISK CATEGORY (Table 1604.5): Current: II Proposed: II

BASIC BUILDING DATA
Construction Type: II-B
Sprinklers: Select one Select one
Standpipes: No
Primary Fire District: 5068 **Flood Hazard Area:** No
Special Inspections Required: No

Gross Building Area Table

| FLOOR | EXISTING (SQ FT) | NEW (SQ FT) | SUB-TOTAL |
|--------------|------------------|-------------|--------------|
| 3rd Floor | | | |
| 2nd Floor | | | |
| Mezzanine | | | |
| 1st Floor | 10680 | | 10680 |
| Basement | | | |
| TOTAL | 10680 | | 10680 |

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ALLOWABLE AREA
Primary Occupancy Classification(s): Storage - S-1
Accessory Occupancy Classification(s): BUSINESS
Incidental Uses (Table 509):
Special Uses (Chapter 4 - List Code Sections): EXISTING 412.4 AIRCRAFT HANGER
Special Provisions (Chapter 5 - List Code Sections):
Mixed Occupancy: Yes Separation: 2 Hr. Exception:

Select one
Actual Area of Occupancy A: **Actual Area of Occupancy B:**
Allowable Area of Occupancy A: **Allowable Area of Occupancy B:** ≤ 1

$$\frac{9,524 (STOR)}{70,000} + \frac{1,156 (BUS)}{92,000} = 0.1487 \leq 1.00$$

| STORY NO. | DESCRIPTION AND USE | (A) FLOOR AREA PER STORY (ACTUAL) | (B) FLOOR AREA PER STORY (ALLOWABLE) | (C) AREA FOR FRONTAGE INCREASE ¹ | (D) ALLOWABLE AREA PER STORY (FRONTAGE INCREASE) ² |
|-----------|---------------------|-----------------------------------|--------------------------------------|---|---|
| 1 | STOR-BUS | 10,680 | 70,000/92,000 | | |

- Frontage increase 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 (ft)
e. Percent of frontage increase $I_f = 100(F/P) - 0.71 \leq 40\%$ (506.3)
- Unlimited area applicable under conditions of Section 507.
- Maximum Building Area = total number of stories in the building x D (maximum 4 stories) (506.2).
- The maximum area of open parking garages must comply with Table 406.5.4.
- Frontage increase is based on the unspinklered area value in Table 506.2.

ALLOWABLE HEIGHT

| ALLOWABLE | SHOW ON PLANS | OR AS NOTED |
|---|---------------|-------------|
| Building Height in Feet (Table 504.3) ¹ | 75 | 28 |
| Building Height in Stories (Table 504.4) ² | 3 | 1 |

- Provide code reference if the "Shown on Plans" quantity is based on Table 504.3 or 4.
- The maximum height of air traffic control towers must comply with Table 411.
- The maximum height of open parking garages must comply with Table 406.5.4.

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FIRE PROTECTION REQUIREMENTS

| BUILDING ELEMENT | FIRE RESISTANCE RATED DISTANCE (FEET) | SPUR WALLS (FEET) | WALLING (RATED ASSEMBLY) | ROOFING (RATED ASSEMBLY) | GLAZING (RATED ASSEMBLY) | SMOKE PENETRATION DEVICES | DOORS |
|---|---------------------------------------|-------------------|--------------------------|--------------------------|--------------------------|---------------------------|-------|
| Structural Frame, including columns, girders, joists | 0 | 0 | | | | | |
| Bearing Walls | | | | | | | |
| Exterior | 0 | 0 | | | | | |
| North | 0 | 0 | | | | | |
| East | 0 | 0 | | | | | |
| West | 0 | 0 | | | | | |
| South | 0 | 0 | | | | | |
| Interior | 0 | 0 | | | | | |
| Nonbearing Walls and Partitions | | | | | | | |
| Exterior walls | 0 | 0 | | | | | |
| North | 0 | 0 | | | | | |
| East | 0 | 0 | | | | | |
| West | 0 | 0 | | | | | |
| South | 0 | 0 | | | | | |
| Interior walls and partitions | 0 | 0 | | | | | |
| Floor Construction | 0 | 0 | | | | | |
| Including supporting beams and joists | 0 | 0 | | | | | |
| Ceiling Supporting Floor | 0 | 0 | | | | | |
| Roof Construction, including supporting beams and joist | 0 | 0 | | | | | |
| Roof Ceiling Assembly | 0 | 0 | | | | | |
| Ceilings Supporting Roof | 0 | 0 | | | | | |
| Shall Enclosure - Exit | 0 | 0 | | | | | |
| Shall Enclosure - Other | 0 | 0 | | | | | |
| Corridor Separation | 0 | 0 | | | | | |
| Occupancy/Use Barrier Separation | 0 | 0 | | | | | |
| Partitions Wall Separation | 0 | 0 | | | | | |
| Smoke Barrier Separation | 0 | 0 | | | | | |
| Smoke Partition | 0 | 0 | | | | | |
| Tensile/Overhead Units | 0 | 0 | | | | | |
| Structural Use Separation | 0 | 0 | | | | | |
| Incidental Use Separation | 0 | 0 | | | | | |

* Indicate section number permitting reduction

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PERCENTAGE OF WALL OPENING CALCULATIONS

| TYPE OF WALL OPENING | PERCENTAGE OF WALL OPENING | PERCENTAGE OF WALL OPENING | PERCENTAGE OF WALL OPENING |
|----------------------|----------------------------|----------------------------|----------------------------|
| | | | |

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY REQUIREMENTS

Life Safety Exit Sheet #:

- Fire and smoke rated wall partitions (Chapter 7)
- Egress paths and egress door widths (if not on the site plan)
- Egress paths and egress door widths with respect to distance to assumed property lines (705.7)
- Occupant load for each egress door relates to occupant load calculation (Table 1064.1.2)
- Exit access travel distances (1017)
- Exit access travel distances (1017)
- Common path of travel distances (Tables 1006.2.1 & 1006.3.2)(4)
- Egress door 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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ACCESSIBLE DWELLING UNITS (SECTION 1107)

| TOTAL ACCESSIBLE UNITS | TYPE I | TYPE II | TYPE III | TYPE IV | TYPE V | TYPE VI | TYPE VII | TYPE VIII |
|------------------------|--------|---------|----------|---------|--------|---------|----------|-----------|
| EXISTING | 3 | | | | | | | |
| TOTAL | 3 | | | | | | | |

ACCESSIBLE PARKING (SECTION 1106)

| TYPE OF PARKING SPACE | TOTAL NUMBER OF PARKING SPACES | NUMBER OF ACCESSIBLE PARKING SPACES | PERCENTAGE OF ACCESSIBLE PARKING SPACES |
|-----------------------|--------------------------------|-------------------------------------|---|
| EXISTING | 3 | 1 | 33% |
| TOTAL | 3 | 1 | 33% |

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

| SPACE | EXISTING | NEW | REQUIREMENTS |
|----------|----------|-----|--------------|
| EXISTING | | | |
| NEW | | | |
| TOTAL | | | |

SPECIAL APPROVALS

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

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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: 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 SHEATING, INSULATION, METAL FRAME
U-Value of total assembly: 0.052
R-Value of insulation: R30 (MIN.)
Skylights in each assembly: N/A
U-Value of skylight: N/A
total square footage of skylights in each assembly: N/A

Exterior Walls (OFFICES)
Description of assembly: BRICK, BATT INSULATION, METAL STUDS & GWB
U-Value of total assembly: 0.023
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: 0.15
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
STRUCTURAL DESIGN**
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_s) Select one
Seismic (I_s) Select one

Live Loads: Roof psf
Mezzanine psf
Floor psf

Ground Snow Load: psf

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

SEISMIC DESIGN CATEGORY: Select one
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) Select one
Spectral Response Acceleration %
Site Classification (ASCE 7) Select one
Data Source:
Basic structural system Select one
Analysis Procedure: Select one
Architectural, Mechanical, Components and Equipment: Select one

LATERAL DESIGN CONTROLS
SOIL BEARING CAPACITY
Select
File No.

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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 exterior 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
 - C406.4 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

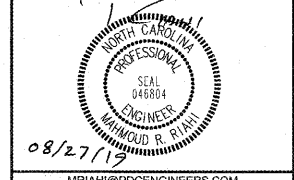
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PDC 19039 08/27/2019

REVISIONS

| NUMBER | DATE | DESCRIPTION |
|--------|------|-------------|
| | | |
| | | |
| | | |
| | | |

BID SET

**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**

**BUILDING CODE
SUMMARY
HANGER #1**

BCS1