2011 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: OFFICE UPFIT FOR ENTERPRISE PRODUCTS
Address: 2019 PRODUCTION DRIVE, SUITE 101
Proposed Use: BUSINESS
Owner or Authorized Agent: SCOTT WOODCOCK Phone # 919-422-9753
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☒ City APEX ☐ County_____

LEAD DESIGN PROFESSIONAL: Architect

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #
Architectural	RUSTY LONG ARCHITECT	RUSTY LONG	11939	(919) 602-4180
Civil				(____)_____
Electrical	APOGEE CONSULTING GROUP	JOHN MATHEWS	34468	(919) 858-7420
Fire Alarm				(____)_____
Plumbing				(____)_____
Mechanical	APOGEE CONSULTING GROUP	JOHN MATHEWS	34468	(919) 858-7420
Sprinkler-Standpipe				(____)_____
Structural				(____)_____
Retaining Walls >5' High				(____)_____
Other				(____)_____

YEAR EDITION OF CODE: 2009 NORTH CAROLINA BUILDING CODE (2006 IBC W/ AMEND.)
☐ New Construction ☐ Renovation (Existing Bldg) ☒ Upfit ☐ Alteration

BUILDING DATA
Construction Type: ☐ I-A ☐ I-B ☐ II-A ☒ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☐ V-B
Mixed construction: ☒ No ☐ Yes Types _____
Sprinklers: ☒ No ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☐ No ☒ Yes
Building Height: 16 Feet 1 Number of Stories ☐ Unlimited per _____
Mezzanine: ☒ No ☐ Yes
High Rise: ☒ No ☐ Yes Central Reference Sheet # (if provided) _____
Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
6th Floor			
5th Floor			
4th Floor			
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	12,025	0	12,025
Basement			
TOTAL	12,025	0	12,025

ALLOWABLE AREA
Primary Occupancy: ☐ Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5 ☐ Business ☐ Educational ☐ Factory-Industrial ☐ F-1 ☐ F-2 ☐ High-Hazard ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5 ☐ Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Use Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Mercantile ☐ Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
☐ Storage ☒ S-1 ☐ S-2 ☐ High-piled
☐ Utility and Miscellaneous Parking Garage ☐ Open ☐ Enclosed ☐ Repair
Secondary Occupancy: BUSINESS
Special Occupancy: ☐ 508.2 ☐ 508.3 ☐ 508.4 ☐ 508.5 ☐ 508.6 ☐ 508.7 ☐ 508.8
Mixed Occupancy: ☐ No ☒ Yes Separation: 0 Hr. Exception: 508.3.3

☒ Non-Separated Mixed Occupancy (302.3.2)
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 Mixed Occupancy (302.3.3) - 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.

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

_____ + _____ + ... = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503[1] AREA	(C) AREA FOR OPEN SPACE INCREASE[2]	(D) AREA FOR SPRINKLER INCREASE[3]	(E) ALLOWABLE AREA OR UNLIMITED[3]	(F) MAXIMUM BUILDING AREA[4]
1	S-1	12,025	17,500	13,125	N/A		30,625

[1] Open space 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 ways = _____ (W)
e. Percent of frontage increase $I_f = 100 [F/P - 0.25] \times W/30$ = _____ (%)
[2] 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
[3] Unlimited area applicable under conditions of Sections Group B, F, M, S, A-4 (507.1, 507.2, 507.3, 507.5); Group A motion picture (507.8); Malls (402.6); and H-2 aircraft paint hangers (507.6).
[4] Maximum Building Area = total number of stories in the building x E but not greater than 3 x E
[5] The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
Type of Construction	Type II-B		Type II-B	TABLE 503
Building Height in Feet	Feet 15'8"	Feet = H + 20' = N/A		TABLE 503
Building Height in Stories	Stories 1	Stories + 1 = N/A	Stories 1	TABLE 503

FIRE PROTECTION REQUIREMENTS
Life Safety Plan Sheet #, if Provided _____

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/_____* REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural frame, including columns, girders, trusses							
Bearing walls							
Exterior	30+	0					
North	30+	0					
East	30+	0					
West	30+	0					
South	30+	0					
Interior							
Nonbearing walls and partitions Exterior							
North	30+	0					
East	30+	0					
West	30+	0					
South	30+	0					
Interior							
Floor construction Including supporting beams and joists		0					
Roof construction Including supporting beams and joists		0					
Shafts - Exit		0					
Shafts - Other		0					
Corridor Separation		N/A					
Occupancy Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Tenant Separation		N/A					

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	☐ No	☒ Yes
Exit Signs:	☐ No	☒ Yes
Fire Alarm:	☒ No	☐ Yes
Smoke Detection Systems:	☒ No	☐ Yes
Panic Hardware:	☒ No	☐ Yes

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM[1] NUMBER OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS[2] (SECTION 1004.1)	
	REQUIRED	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1004.2.4)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS
S-1	2	2	200'	95'	29'	33'

[1] Corridor dead ends (Section 1004.3.2.3)
[2] Single exits (Table 1005.2.2)
[3] Common Path of Travel (Section 1004.2.5)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA[1] sq. ft.	(b) AREA[1] PER OCCUPANT (TABLE 1003.2.2.2)	(c) EGRESS WIDTH PER OCCUPANT (TABLE 1003.2.3)		EXIT WIDTH (in)[2,3,4,5,6] REQUIRED WIDTH (SECTION 1003.2.3) (a÷b) x c		ACTUAL WIDTH SHOWN ON PLANS	
			STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
BUSINESS	2,143	100	N/A	.15	N/A	3.3"		64"
STORAGE	230	300	N/A	.15	N/A	.15		32"

[1] See Table 1003.2.2.2 to determine whether net or gross area is applicable.
[2] See definition "Area, Gross" and "Area, Net" (Section 1002)
[3] Minimum stairway width (Section 1003.3.3); min. corridor width (Section 1004.3.2.2); min. door width (Section 1003.3.1)
[4] Minimum width of exit passageway (Section 1005.3.3)
[5] See Section 1003.2.2.7 for converging exits.
[6] The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1003.2.3)
[6] Assembly occupancies (Section 1008)

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (I_w) _____ Snow (I_s) _____ Seismic (I_e) _____
Live Loads: Roof _____ psf Mezzanine _____ psf Floor _____ psf
Snow Load: _____ psf
Wind Load: Basic Wind Speed _____ mph (ASCE-7-98) Exposure Category _____ Wind Base Shears (for MWFRS) Vx = _____ Vy = _____

SEISMIC DESIGN CATEGORY A
Compliance with Section 1616.4 only* ☐ Yes ☐ No

SEISMIC DESIGN CATEGORY B, C, & D
Provide the following Seismic Design Parameters.
Seismic Use Group
Spectral Response Acceleration S_{XS}_____ %g S_{X1}_____ %g
Site Classification
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_{Y1} = _____
Analysis Procedure _____ Simplified _____ Equivalent Lateral Force _____ Modal
Architectural, Mechanical, Components anchored? _____

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 _____

PLUMBING FIXTURE REQUIREMENTS

OCCUPANCY	WATERCLOSETS		URINALS	LAVATORIES		SHOWERS/ TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE		MALE	FEMALE		REGULAR	ACCESSIBLE

ACCESSIBLE PARKING

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 8' ACCESS AISLE		
TOTAL						

SPECIAL APPROVALS
Special approval: (Local Jurisdiction, Department of Insurance, SBCCI, ICC, etc., describe below)

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 energy cost budget method, state the annual energy cost budget vs allowable annual energy cost budget.

THERMAL ENVELOPE

Method of Compliance:
☐ Prescriptive ☐ Performance ☐ Energy Cost Budget

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
shading coefficient
projection factor
low e required, if applicable
Door R-Values

Walls adjacent to unconditioned space (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Openings (windows or doors with glazing)
U-Value of assembly
Low e required, if applicable
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

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:
☒ Prescriptive ☐ Performance ☐ Energy Cost Budget

Lighting schedule
lamp type required in fixture: Fluorescent
number of lamps in fixture: 3
ballast type used in the fixture: Electronic
number of ballasts in fixture: 1
total wattage per fixture: 95
total interior wattage specified vs allowed: 855W Specified vs 1057W allowed
total exterior wattage specified vs allowed: Not Applicable to this Project

Equipment schedules with motors (not used for mechanical systems)
Not Applicable to this project

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Method of Compliance
☒ Prescriptive ☐ Energy Cost Budget

Thermal Zone
winter dry bulb: 16°F
summer dry bulb: 90°F

Interior design conditions
winter dry bulb: 70°F
summer dry bulb: 75°F
relative humidity: 50°F

Building heating load

Building cooling load

Mechanical Spacing Conditioning System

Unitary
New Split System
95% AFUE Heating Efficiency
13.0 SEER
57 MBH Heating Output
21.8 MBH Cooling Capacity
Boiler
Not Applicable to this project
Chiller
Not Applicable to this project

List equipment efficiencies
Split System:
13.0 SEER
95% AFUE Heating Efficiency

Equipment schedules with motors (mechanical systems)
Not Applicable to this project

RUSTY LONG, ARCHITECT
SUSTAINABLE | MODERN | DESIGN

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RUSTY LONG SEAL 11939 NORTH CAROLINA REGISTERED NORTH CAROLINA 12/13/2011

ISSUED FOR CONSTRUCTION

OFFICE FITUP
2019 PRODUCTION DR.
SUITE 101
APEX, NC

RUSTY LONG ARCHITECT
1544 DIRKSON COURT
CARY, NC 27511
919-602-4180

REVISIONS

12/6/11	ISSUED FOR REVIEW
12/13/11	ISSUED FOR CONSTRUCTION

DATE: December 13, 2011
PROJECT #: 2011_JSB
DRAWN BY: RHL
CHECKED BY: RHL

CODE SUMMARY

A2

☒ FOR CONSTRUCTION
☐ NOT FOR CONSTRUCTION