

**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: PHALANX CROOSFIT  
 Address: 2659 HWY 87 S., CAMERON, NC Zip Code: 28326  
 Owner/Authorized Agent: EQUAGEN PLLC Phone #: (919) 267-3004 E-Mail: info@equagen.com  
 Owned By:  City/County  Private  State  
 Code Enforcement Jurisdiction:  City CAMERON  County HARNETT  State NC

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Civil	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Electrical	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Fire Alarm	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Plumbing	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Mechanical	Equagen PLLC	Moti KC	042307	(919)267-3004	moti.kc@equagen.com
Sprinkler-Standpipe	N/A				
Structural	Equagen PLLC	RABIN P.OJHA	042307	(919)267-3004	rabin.ojha@equagen.com
Retaining Walls >5' High	N/A				
Other					

**2018 NC BUILDING CODE:**  New Building  Addition  Renovation  
 1st Time Interior Completion  
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements  
 Phased Construction - Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements

**2018 NC EXISTING BUILDING CODE: EXISTING:**  Prescriptive  Repair  Chapter 14  
 Alteration:  Level I  Level II  Level III  
 Historic Property  Change of Use

CONSTRUCTED: (date) N/A CURRENT OCCUPANCY(S) (Ch. 3): N/A  
 RENOVATED: (date) N/A PROPOSED OCCUPANCY(S) (Ch. 3): A-3 (MAX. OCCUPANT LOAD=120)  
 RISK CATEGORY (Table 1604.5): Current:  I  II  III  IV  
 Proposed:  I  II  III  IV

**BASIC BUILDING DATA**  
 Construction Type:  I-A  II-A  III-A  IV  V-A  
 I-B  II-B  III-B  V-B

Sprinklers:  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D  
 Standpipes:  No  Yes Class  I  II  III  Wet  Dry  
 Fire District:  No  Yes **Flood Hazard Area:**  No  Yes

Special Inspections Required:  No  Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

**Gross Building Area Table**

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor	-	-	-
2nd Floor	-	-	-
Mezzanine	-	589.57	589.57
1st Floor	-	12096.00	12096.00
Basement	-	-	-
TOTAL	-	12096.00	12096.00

**ALLOWABLE AREA**

**Primary Occupancy Classification(s):**  
 Assembly  A-1  A-2  A-3  A-4  A-5  
 Business   
 Educational   
 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 Condition  1  2  
 I-2 Condition  1  2  
 I-3 Condition  1  2  3  4  5  
 I-4  
 Mercantile   
 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

**Accessory Occupancy Classification(s):** N/A  
 Incidental Uses (Table 509): N/A  
**Special Uses (Chapter 4 - List Code Sections):** 411  
**Special Provisions: (Chapter 5 - List Code Sections):** N/A  
**Mixed Occupancy:**  No  Yes Separation: 2 Hr. Exception: \_\_\_\_\_

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.

Actual Area of Occupancy A + Actual Area of Occupancy B ≤ 1  
 Allowable Area of Occupancy A Allowable Area of Occupancy B  
 0.35 + 0.45 + ..... = 0.8 ≤ 1.00

**SPECIAL APPROVALS**

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,2</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>3,4</sup>
1	SHOP 1	6048	11500	50%	17250
2	SHOP 2	6048	9000	50%	13500

1 Frontage area increases from Section 506.3 are computed thus:  
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = 460 (F)  
 b. Total Building Perimeter = 460 (P)  
 c. Ratio (F/P) = 1.0 (F/P)  
 d. W = Minimum width of public way = 20 FT (W)  
 e. Percent of frontage increase If = 100[F/P - 0.25] x W/30 = 50 (%)  
 2 Unlimited area applicable under conditions of Section 507.  
 3 Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).  
 4 The maximum area of open parking garages must comply with Table 406.5.4.  
 5 Frontage increase is based on the unsprinklered area value in Table 506.2.

**ALLOWABLE HEIGHT**

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE 1
Building Height in Feet	40	25	TABLE 504.3
Building Height in Stories	1	1	TABLE 504.4

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 412.3.1.  
 3 The maximum height of open parking garages must comply with Table 406.5.4.

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	PROVIDED (W/REDUCTION)	DETAIL # AND SHEET #	DESIGN FOR RATED ASSEMBLY	SHEET # FOR PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior		2HR	2HR				
Nonbearing Walls and Partitions		0HR	0HR				
Exterior walls							
North	30+	1HR	1HR				
East	30+	1HR	1HR				
West	30+	1HR	1HR				
South	30+	1HR	1HR				
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy/Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenant/Dwelling Unit/Sleeping Unit Separation							
Incidental Use Separation							

\* Indicate section number permitting reduction

**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)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132' ACCESS AISLE	8' ACCESS AISLE	
2420 SF	4	4	3	-	1	4
TOTAL						

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

SPACE	EXIST'G	WATERCLOSETS			URINALS			LAVATORIES			SHOWERS			DRINKING FOUNTAINS		
		MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE	REGULAR	ACCESSIBLE	REGULAR	ACCESSIBLE		
NEW	3	3	-	-	2	2	-	2	-	-	-	-	-	-	1	
REQ'D	-	-	1	-	-	-	1	-	-	-	-	-	-	-	1	

**PERCENTAGE OF WALL OPENING CALCULATIONS**

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
30' + ( N.W.E)	UNPROTECTED	UNLIMITED	
10' ( S)	PROTECTED	UNLIMITED	N/A

**LIFE SAFETY SYSTEM REQUIREMENTS**

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

**LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: A105, E101  
 Fire and/or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on the site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Exit access travel distances (1017)  
 Common path of 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

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

**MECHANICAL SUMMARY**

**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**Thermal Zone**

winter dry bulb: 47 F  
 summer dry bulb: 80 F

**Interior design conditions**

winter dry bulb: 55 F  
 summer dry bulb: 54 F  
 relative humidity: 58 %

**Building heating load: 308 MBH**

**Building cooling load:**

**Mechanical Spacing Conditioning System**

Unitary description of unit: \_\_\_\_\_  
 heating efficiency: \_\_\_\_\_  
 cooling efficiency: \_\_\_\_\_  
 size category of unit: ONE 4.3 AND 2 TON MINI-SPLIT 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**

**ELECTRICAL SYSTEM AND EQUIPMENT**

**Method of Compliance: Energy Code**  Performance  Prescriptive  
 ASHRAE 90.1  Performance  Prescriptive

Lighting schedule (each fixture type) ONE 4.3 AND 2 TON MINI-SPLIT UNIT  
 lamp type required in fixture: STRIP LED LIGHT  
 number of lamps in fixture: SINGLE LAMP IN ONE FIXTURE  
 total wattage per fixture: 40 W PER FIXTURE  
 total interior wattage specified vs. allowed (whole building or space by space): 2780W SPECIFIED VS 3175W ALLOWED (BUILDING AREA METHOD)  
 total exterior wattage specified vs. allowed: N/A

**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

**ENERGY REQUIREMENTS:**

The following data shall be considered minimum and any special attribute required to meet the 2018 North Carolina State Building Code - 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 versus the annual energy cost for the proposed design.

**Existing building envelope complies with code:**  No  Yes (The remainder of this section is not applicable)

**Exempt Building:**  No  Yes (Provide code or statutory reference): \_\_\_\_\_

**Climate Zone:**  3A  4A  5A

**Method of Compliance: Energy Code**  Performance  Prescriptive  
 ASHRAE 90.1  Performance  Prescriptive  
 (If "Other" specify source here)

**THERMAL ENVELOPE (Prescriptive method only)**

**Roof/ceiling Assembly (each assembly)**  
 Description of assembly: Standing Seam Metal Roof  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: R-24  
 Skylights in each assembly: \_\_\_\_\_  
 U-Value of skylight: \_\_\_\_\_  
 total square footage of skylights in each assembly: \_\_\_\_\_

**Exterior Walls (each assembly)**  
 Description of assembly: Steel Studs, Girts  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: R-11  
 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: Slab on grade  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: R-15 for 24"  
 Horizontal/vertical requirement: \_\_\_\_\_  
 slab heated: \_\_\_\_\_

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

**DESIGN LOADS:**

**Importance Factors:** Snow (IS) 1.00  
 Seismic (IE) 1.00  
**Live Loads:** Roof 20 psf  
 Mezzanine \_\_\_\_\_ psf  
 Floor 100 psf (MAIN FLOOR)  
**Ground Snow Load:** 10 psf  
**Wind Load:** Ultimate Wind Speed 120 mph (ASCE-7)  
 Exposure Category C

**SEISMIC DESIGN CATEGORY:**  A  B  C  D

Provide the following Seismic Design Parameters:  
 Risk Category (Table 1604.5)  I  II  III  IV  
**Spectral Response Acceleration** SS 20.5 %g S1 9.3 %g

Site Classification (ASCE 7)  A  B  C  D  E  F  
 Data Source:  Field Test  Presumptive  Historical Data

**Basic structural system**  
 Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/Intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum  
 Simplified  Equivalent Lateral Force  Dynamic

**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) \_\_\_\_\_ psf  
 Presumptive Bearing capacity 1500 psf  
 Pile size, type, and capacity \_\_\_\_\_

NO.	DATE	DESCRIPTIONS
2	06/19/2023	REVISION 2
1	05/17/2023	REVISION 1
0	05/02/2023	SUBMITTAL

**REVISIONS**

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