

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: Strickland Brothers  
Address: 50 Neuse River Parkway  
Zip Code: 27527 Owner/Authorized Agent: N3 Phone # ( 609 ) 651 - 9327  
E-Mail: cbehen@n3realstate.com Owned By: Private  
Code Enforcement Jurisdiction: County

CONTACT:  
DESIGNER FIRM NAME LICENSE # TELEPHONE # E-MAIL  
Architectural John Franz Architect, 14317 (817) 757-9922 jfranz@johnfranzarchitect.com  
Civil John R. McKelvey/Conway Inc., N Ray Winton, Jr. 015154 (919) 361-5000 jrmckelvey@conwayinc.com  
Electrical Case Engineering, Darrel R Case 023847 (636) 349-1730 jcase@caseengineering.com  
Fire Alarm Case Engineering, Darrel R Case 023847 (636) 349-1730 jcase@caseengineering.com  
Plumbing Case Engineering, Darrel R Case 023847 (636) 349-1730 jcase@caseengineering.com  
Mechanical Case Engineering, Darrel R Case 023847 (636) 349-1730 jcase@caseengineering.com  
Sprinkler-Standpipe Ronald A Roberts, P.E. Ronald A Roberts 13885 (214) 937-6299 rbailey@rara.net  
Retaining Walls >5' High ( )  
Other ( )  
\*Other should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: New Building

2018 NC EXISTING BUILDING CODE: N/A N/A N/A  
CONSTRUCTED: (date) N/A CURRENT OCCUPANCY(S) (Ch. 3): N/A  
RENOVATED: (date) N/A PROPOSED OCCUPANCY(S) (Ch. 3): S-1  
RISK CATEGORY (Table 1004.5): Current: I Proposed: N/A

BASIC BUILDING DATA

Construction Type: V-B

Sprinklers: No N/A

Standpipes: No

Primary Fire District: No Flood Hazard Area: No

Special Inspections Required: No

Gross Building Area Table			
FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 <sup>rd</sup> Floor	N/A	N/A	0 SF
2 <sup>nd</sup> Floor	0 SF	N/A	0 SF
Mezzanine	0 SF	N/A	0 SF
1 <sup>st</sup> Floor	0 SF	1725 SF	1725 SF
Basement	0 SF	N/A	0 SF
TOTAL	0 SF	1725 SF	1725 SF

2018 NC Administrative Code and Policies

Revised 6/15/2020

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: No

Exempt Building: No Provide code or statutory reference:

Climate Zone: 4A

Method of Compliance: ASHRAE 90.1 - Performance  
(If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)

Roof/Ceiling Assembly (each assembly)

Description of assembly: Metal roof plywood sheathing over wood trusses, attic space has R-38  
U-Value of total assembly: U-27  
R-Value of insulation: R-38  
Skylights in each assembly: N/A  
U-Value of skylight: N/A  
Total square footage of skylights in each assembly: N/A

Exterior Walls (each assembly)

Description of assembly: CMU/Stucco cladding on sheathing on 2x6 wood stud framing at 16" oc  
U-Value of total assembly: U-62  
R-Value of insulation: R-21  
Openings (windows or doors with glazing)  
U-Value of assembly: U-27  
Solar heat gain coefficient: 0.50  
projection factor: 0.50  
Door R-Values: R-2.5

Walls below grade (each assembly)

Description of assembly: N/A  
U-Value of total assembly: N/A  
R-Value of insulation: N/A

Floors over unconditioned space (each assembly)

Description of assembly: N/A  
U-Value of total assembly: N/A  
R-Value of insulation: N/A

Floors slab on grade

Description of assembly: Unheated  
U-Value of total assembly: N/A  
R-Value of insulation: N/A  
Horizontal/vertical requirement: N/A  
slab heated: N/A

2018 NC Administrative Code and Policies

Revised 6/15/2020

ALLOWABLE AREA

Primary Occupancy Classification(s): Storage - S-1

Accessory Occupancy Classification(s): NA

Incidental Uses (Table 509): none

Special Uses (Chapter 4 - List Code Sections): none

Special Provisions: (Chapter 5 - List Code Sections): none

Mixed Occupancy: No Separation: Select one Exception:

No	Actual Area of Occupancy A	+	Actual Area of Occupancy B	Allowable Area of Occupancy A	≤ 1
	3363	+	277	3640	≤ 1.00
STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 <sup>1</sup> AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,2</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2,3</sup>
1	Repair Garage	1725 SF	9000 SF	NA	1 story allowed only

<sup>1</sup> 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 = 62' (F)

b. Total Building Perimeter = 182' (P)

c. Ratio (F/P) = .341 (F/P)

d. W = Minimum width of public way = 180' (W)

e. Percent of frontage increase  $f = 100(F/P - 0.25) \times W/30 = 54.6\%$  (%)

<sup>2</sup> Unlimited area applicable under conditions of Section 507.

<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).

<sup>4</sup> The maximum area of open parking garages must comply with Table 406.5.4.

<sup>5</sup> Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT			
	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE <sup>1</sup>
Building Height in Feet (Table 504.3) <sup>2</sup>	40'-0"	29'-9"	
Building Height in Stories (Table 504.4) <sup>3</sup>	1	1	

<sup>1</sup> Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

<sup>2</sup> The maximum height of air traffic control towers must comply with Table 412.3.1.

<sup>3</sup> The maximum height of open parking garages must comply with Table 406.5.4.

2018 NC Administrative Code and Policies

Revised 6/15/2020

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

MECHANICAL DESIGN

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb: 18  
summer dry bulb: 95

Interior design conditions

winter dry bulb: 70  
summer dry bulb: 75  
relative humidity: 50%

Building heating load: 21.5 MBH

Building cooling load: 16.5 MBH

Mechanical Spacing Conditioning System

Unitary  
description of unit: Daikin Split System  
heating efficiency: 21.6 MBH  
cooling efficiency: 17.6 MBH  
size category of unit: 1.5 Tonn

Boiler  
Size category. If oversized, state reason: N/A

Chiller  
Size category. If oversized, state reason: N/A

List equipment efficiencies:

2018 NC Administrative Code and Policies

Revised 6/15/2020

FIRE PROTECTION REQUIREMENTS

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

\* Indicate section number permitting reduction

2018 NC Administrative Code and Policies

Revised 6/15/2020

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: ASHRAE 90.1 - 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 NCCEC, 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

2018 NC Administrative Code and Policies

Revised 6/15/2020

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 (%)
South - 75'-7"	UP, non sprinkled	No Limit	45%
East - 32'-5"	UP, non sprinkled	No Limit	0%
West - 87'-0"	UP, non sprinkled	No Limit	11%

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: A0.5

- ☐ Fire and/or smoke rated wall locations (Chapter 7) not required
- ☐ Assumed and real property line locations (if not on the site plan) refer civil plans
- ☐ 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) A0.5
- ☒ Occupant loads for each area A0.5
- ☒ Exit sign locations (1013) A0.5
- ☒ Exit access travel distances (1017) A0.5
- ☒ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1)) A0.5
- ☒ Dead end lengths (1020.4) no corridors in project
- ☒ Clear exit widths for each exit door A0.5
- ☒ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3) A0.5
- ☒ Actual occupant load for each exit door A0.5
- ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation not required
- ☐ Location of doors with panic hardware (1010.1.10) none required. None provided.
- ☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7) none provided.
- ☐ Location of doors with electromagnetic egress locks (1010.1.9.9) None in project
- ☐ Location of doors equipped with hold-open devices. None in project.
- ☐ Location of emergency escape windows (1030) None in project.
- ☐ The square footage of each fire area (202) No fire areas.
- ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) not in project.
- ☒ Note any code exceptions or table notes that may have been utilized regarding the items above

2018 NC Administrative Code and Policies

Revised 6/15/2020

ACCESSIBLE DWELLING UNITS  
(SECTION 1107)

UNIT CLASSIFICATION	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
None in project								

ACCESSIBLE PARKING  
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	# OF ACCESSIBLE SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED	TOTAL # ACCESSIBLE PROVIDED
Parking area	9	9	0	1
TOTAL	9	9	0	1

PLUMBING FIXTURE REQUIREMENTS  
(TABLE 2902.1)

USE	WATER CLOSETS	URINALS	LAVATORIES	SHOWERS	DRINKING FOUNTAINS
MALE	0	0	0	0	0
FEMALE	0	0	0	0	0
UNSEX	0	0	0	0	0
REG'D	1	0	1	0	0

SPECIAL APPROVALS

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

2018 NC Administrative Code and Policies

Revised 6/15/2020

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<sub>s</sub>) 1.0  
Seismic (I<sub>e</sub>) 1.0  
Live Loads: Roof 18 psf  
Mezzanine NA psf  
Floor 100 psf  
Ground Snow Load: 15 psf  
Wind Load: Ultimate Wind Speed 115 mph (ASEC7-10)  
Exposure Category B

SEISMIC DESIGN CATEGORY: B

Provide the following Seismic Design Parameters:

Risk Category (Table 1604.5) II

Spectral Response Acceleration S<sub>s</sub> 15.3%g S<sub>i</sub> 7.5%

Site Classification (ASCE 7) D

Data Source: Field Test

Basic structural system Bearing Wall

Analysis Procedure: Simplified

Architectural, Mechanical, Components anchored? N/A

LATERAL DESIGN CONTROL: Wind

SOIL BEARING CAPACITIES:

Field Test (provide copy of test report) 1,750 psf

Pile size, type, and capacity N/A

2018 NC Administrative Code and Policies

Revised 6/15/2020



STRICKLAND BROTHERS  
50 NEUSE RIVER PARKWAY  
CLAYTON, NC 27527

Revisions:

File Name: 220248 - A0.2  
Project No: 22048  
Date: 07/08/22  
Drawn By: JIM  
Checked By: TI

SHEET  
A0.1  
APPENDIX B