NORTH CAROLINA BUILDING CODE SUMMARY – NC 2012 BUILDING CODE

NAME OF PROJECT: A NEW OFFICE FOR: MOHLER HOMES, INC.
PROJECT ADDRESS: LOT 5 COMM PARK LANE, ANGIER, NORTH CAROLINA
PROPOSED USE: OFFICE & STORAGE
OWNER / CONTACT: LORRAINE MOHLER
TELEPHONE: 910.910.221.9901
OWNED BY: ■ PRIVATE ☐ CITY/COUNTY ☐ STATE
CODE ENFORCEMENT: ☐ CITY ■ COUNTY ☐ CITY/COUNTY
NAME OF JURISDICTION: HARNETT

PROJECT SUMMARY

BUILDING DESCRIPTION: TYPE 5-B
SCOPE OF WORK: A NEW BUILDING FOR A DEVELOPER / CONTRACTOR
CODE COMPLIANCE SUMMARY: COMPLIANT w/ 2012 NCSBC
ALTERNATIVE MEANS OF COMPLIANCE REQUEST: N/A

PROJECT SUMMARY

PROJECT COORDINATOR: ROBERT C. EVANS, ARCHITECT

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	EMAIL
ARCHITECTURAL	ROBERT C. EVANS, ARCHITECT	ROBERT C. EVANS	6530	910.624.9259	rcearch@gmail.com
CIVIL	4D SITE SOLUTIONS			910.977.5852	grase2050@gmail.com
ELECTRICAL	COASTAL PLAINS ENGINEERING	CHRISTOPHER LOCKLEAR	20193	910.521.7213	coastalplainseng@gmail.com
PLUMBING	COASTAL PLAINS ENGINEERING	CHRISTOPHER LOCKLEAR	20193	910.521.7213	coastalplainseng@gmail.com
MECHANICAL	COASTAL PLAINS ENGINEERING	CHRISTOPHER LOCKLEAR	20193	910.521.7213	coastalplainseng@gmail.com
SPRINKLER	NO WORK	–	–	–	–
STRUCTURAL 1	ROBERT C. EVANS, ARCHITECT	ROBERT C. EVANS	6530	910.624.9259	rcearch@gmail.com
STRUCTURAL 2	NO WORK	–	–	–	–
TRUSS	NO WORK	–	–	–	–
OTHER	NO WORK	–	–	–	–

BUILDING CODE DATA

BUILDING CODE: ☐ 2012 REHAB CODE ■ 2012 NORTH CAROLINA STATE BUILDING CODE (NCSBC)
NEW BUILDING: ■ NEW BUILDING ☐ ADDITION ☐ ALTERATION TO SHELL ☐ FIRST TIME INTERIOR COMPLETION ☐ SHELL BUILDING
EXISTING BUILDING: ☐ RENOVATION ☐ INTERIOR COMPLETION ☐ TENANT ALTERATION ☐ CHANGE OF OCCUPANCY ☐ RECONSTRUCTION ☐ REPAIR ☐ ALTERATION TO SHELL ☐ CHANGE OF USE TENANT SPACE
ORIGINAL OCCUPANCY: N/A
PROPOSED OCCUPANCY: BUSINESS / STORAGE, S-2

BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B ☐ N ☐ 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: 20'-0"± FEET 1 NUMBER OF STORIES ☐ UNLIMITED PER
MEZZANINE: ■ NO ☐ YES
HIGH RISE: ■ NO ☐ YES CENTRAL REFERENCE SHEET # (IF PROVIDED)

GROSS BUILDING AREA:

FLOOR	OFFICE	STORAGE	BUILDING TOTAL
1st FLOOR	1,576	937	2,640
		TOTAL	2,640

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 ☐ CLOSED ☐ REPAIR

SECONDARY OCCUPANCY: STORAGE, S-2
SPECIAL OCCUPANCY:
☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408
☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415
☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421

MIXED OCCUPANCY: ☐ NO ■ YES SEPARATION: 0 HR.

■ NON-SEPARATED MIXED OCCUPANCY (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 MIXED OCCUPANCY (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.

ALLOWABLE AREA & HEIGHT

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503[5] AREA	(C) AREA FOR OPEN SPACE INCREASE[1]	(D) AREA FOR SPRINKLER INCREASE[2]	(E) ALLOWABLE AREA OR UNLIMITED[3]	(F) MAXIMUM BUILDING AREA[4]
ONE (1)	BUSINESS	1,576	9,000	–	–	–	9,000
ONE (1)	STORAGE, S-2	937	13,500	–	–	–	13,500

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE 5-B		TYPE 5-B	N/A
BUILDING HEIGHT IN FEET	40 FEET	N/A	20'-0"±	N/A
BUILDING HEIGHT IN STORIES	STORIES – 2	N/A	STORIES – 1	N/A

FIRE RESISTANCE RATINGS

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							
NORTH	85.7'	0	0				
EAST	41.7'	0	0				
WEST	10.0'	0	0				
SOUTH	94.5'	0	0				
INTERIOR	N / A	0	0				
NONBEARING WALLS AND PARTITIONS							
NORTH	0	0	0				
EAST	0	0	0				
WEST	0	0	0				
SOUTH	0	0	0				
INTERIOR	N / A	0	0				
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS		0	0				
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS		0	0				
SHAFTS – EXIT		0	0				
SHAFTS – OTHER		0	0				
CORRIDOR SEPARATION		0	0				
OCCUPANCY SEPARATION		0	0				
PARTY/FIRE WALL SEPARATION		0	0				
TENANT SEPARATION		0	0				

LIFE SAFETY SYSTEMS

EMERGENCY LIGHTING: ☐ NO ■ YES SMOKE DETECTION SYSTEM: ■ NO ☐ YES
EXIT SIGNS: ☐ NO ■ YES PANIC HARDWARE: ■ NO ☐ YES
FIRE ALARM: ■ NO ☐ YES (SPRINKLER MONITORING)

EXIT REQUIREMENTS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM[2] NUMBER OF EXITS REQUIRED	MINIMUM[2] NUMBER OF EXITS SHOWN ON PLANS	TRAVEL DISTANCE ALLOWABLE TRAVEL DISTANCE (TABLE 1004.2.4)	TRAVEL DISTANCE ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	ARRANGEMENT MEANS OF EGRESS[1,2] (SECTION 1004.1) REQUIRED DISTANCE BETWEEN EXIT DOORS	ARRANGEMENT MEANS OF EGRESS[1,2] (SECTION 1004.1) ACTUAL DISTANCE SHOWN ON PLANS
OFFICE	1	1	200'	48'-2"	N/A	N/A
STORAGE	1	1	200'	49'-9"	N/A	N/A

[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	OCCUPANT CONTENT	(c) EGRESS WIDTH PER OCCUPANT (TABLE 1003.2.3) STAIR	(c) EGRESS WIDTH PER OCCUPANT (TABLE 1003.2.3) LEVEL	EXIT WIDTH (IN)[2,3,4,5,6] REQUIRED WIDTH (SECTION 1003.2.3) (a ÷ b) x c STAIR	EXIT WIDTH (IN)[2,3,4,5,6] REQUIRED WIDTH (SECTION 1003.2.3) (a ÷ b) x c LEVEL	EXIT WIDTH (IN)[2,3,4,5,6] ACTUAL WIDTH SHOWN ON PLANS STAIR	EXIT WIDTH (IN)[2,3,4,5,6] ACTUAL WIDTH SHOWN ON PLANS LEVEL
OFFICE	1,576	1/100sf	16	N/A	0.2	N/A	3.8	N/A	72
STORAGE	937	1/300sf	3	N/A		N/A		N/A	
TOTAL OCCUPANT CONTENT			19						

ASSEMBLY OCCUPANCY INFORMATION N/A

SPACE DESCRIPTION	AREA	OCCUPANT LOAD FACTOR	OCCUPANT LOAD	EGRESS WIDTH PER OCCUPANT	REQUIRED EGRESS WIDTH	ACTUAL WIDTH ON PLANS (MAIN EXIT)	# OF EXITS

PLUMBING FIXTURE REQUIREMENTS

OCCUPANCY	WATERCLOSETS MALE	WATERCLOSETS FEMALE	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	SHOWERS/ TUBS	DRINKING FOUNTAINS	NOTES & EXCEPTIONS
BUSINESS/STORAGE	9	10						
TOTAL REQUIRED	1		0	1		0	0	
TOTAL PROVIDED	1		0	1		0	0	

PERCENTAGE OF WALL OPENINGS CALCULATIONS

WALL	ACTUAL SEPARATION DISTANCE SHOWN ON PLANS	PERCENTAGE OF OPENINGS ALLOWED PER TABLE 705.8	ACTUAL PERCENTAGE OF OPENING ON PLANS
NORTH	N/A	NL	N/A
SOUTH	N/A	NL	N/A
EAST	N/A	NL	N/A
WEST	N/A	NL	N/A

WALL LEGENDS N/A

THE FOLLOWING WALL TYPES ARE PRESENT IN THIS PROJECT (SEE WALL LEGEND ON FLOOR PLANS FOR FURTHER REFERENCE)

☐ FIRE PARTITIONS 709 ☐ FIRE WALLS 706 ☐ FIRE BARRIERS 707
☐ SMOKE PARTITIONS 711 ☐ SMOKE BARRIERS 710 ☐ SHAFT ENCLOSURE 708

DESIGN LOADS

Structure Conforms to "Conventional Light Frame Provisions" of 2308

1.	Yes, continue No, Go to line 9	–	
2.	Roof Live Load=	–	PSF
3.	Floor Live Load=	–	PSF
4.	Ground Snow Load (Pg)=	–	PSF
5.	Basic Wind Speed, 3 sec. Gust=	–	MPH
6.	Seismic Site Class=	–	
7.	Seismic Design Category=	–	Go to line 44
8.			
9.	LIVE LOADS		Area
10.	Floor Live Load (indicate area)=	50	PSF SHAFT AND EQUIPMENT ROOM
11.	Floor Live Load (indicate area)=	–	PSF
12.	Floor Live Load (indicate area)=	–	PSF
13.	Live Load Reduction used in Design	–	NO
14.	Roof Live Load=	–	PSF
15.	ROOF SNOW LOAD DATA		
16.	Flat-Roof Snow Load (Pf)=	10	PSF
17.	Snow Exposure Factor (Ce)=	–	
18.	Snow Importance Factor (Is)=	1.0	
19.	Thermal Factor (Ct)=	–	
20.	WIND DESIGN DATA		
21.	Basic Wind Speed, 3 Sec. Gust=	100	MPH
22.	Wind Importance Factor (Iw)=	1.0	(If multiple exposures are used to indicate directions)
23.	Wind Exposure	B	
24.	Internal Pressure Coefficient	1.0±	(If elements are not designed by the registered design professional)
25.	Components and Cladding Loads=	–	
26.	Wind Base Shear, Wx	.45	KIPS
27.	Wind Base Shear Wyx	.15	KIPS
28.	EARTHQUAKE DESIGN DATA		
29.	Seismic Important Factor (Ie)=	1.0	
30.	Seismic Use Group	N/A	
31.	Mapped Spectral Response Accel. Ss	0.19	
32.	Mapped Spectral Response Accel. S1	0.1	
33.	Site Class	D	(Provide soils report if Site Class is not "D")
34.	Spectral Response Coefficient, Sds=	0.2	
35.	Spectral Response Coefficient, Sdl=	0.11	
36.	Seismic Design Category =	C	
37.	Building (Structural) System	–	
38.	Basic Seismic Force Resisting System	SHEAR WALL	
39.	Seismic Response Coefficient (Cs)=	0.1	
40.	Response Modification Factor, R=	3	
41.	Analysis Procedure Used=	–	
42.	Seismic Base Shear, Sx	–	KIPS
43.	Seismic Base Shear, Sy	–	KIPS
44.	SOIL DATA		
45.	Presumptive Soil Bearing Pressure=	2000	PSF
46.	Bearing Pressure per Soils Report	–	PSF
47.	Deep Foundation Type	–	
48.	Deep Foundation Allowable Loads	–	TONS, downward
		–	KIPS, uplift
		–	KIPS, lateral

ACCESIBLE PARKING SEE SITE PLAN

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED REGULAR W/ 5' ACCESS AISLE	# OF ACCESSIBLE SPACES PROVIDED VAN SPACES W/ 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
NEW LOT	39	39	1	1	2
TOTAL	39	39	1	1	2

*NOTE: (COMPLETE FOR CLARIFICATION OF PROJECT SCOPE AND IMPACT TO EXISTING PARKING COUNTS AS APPLICABLE.)

SPECIAL APPROVALS N/A

(Describe special approvals from local jurisdictions, County of State Department of Health, NC Department of Insurance, International Code Council, etc.)

ELECTRICAL SUMMARY N/A - SEE ELECTRICAL SHEETS

ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: ☐ Prescriptive ☐ Performance ☐ Energy Cost Budget
Provide a standard riser diagram which indicates designated points for check metering.
Provide a standard panel schedule description which identifies different end use loads.
Lighting schedule
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
Total exterior wattage specified vs. allowed
Equipment schedules with motors (not used for mechanical systems)
Motor horsepower
Number of phases
Minimum efficiency
Motor type
# of poles

SPECIAL INSPECTIONS CHAPTER 17 N/A

SPECIAL INSPECTIONS SHALL BE CONDUCTED ON ALL PROJECTS THAT FALL WITHIN BUILDING CATEGORIES AND/OR CONTAIN ELEMENTS SUBJECT TO SPECIAL INSPECTIONS AS PRESCRIBED BY REVISED SECTION 1704.

To schedule the required preconstruction meeting with the City of Raleigh please call 807-5111

List whom will inspect the required special inspections
Fabricator of load bearing components –
Soil tests –
Concrete, caissons, piles, piers, precast –
Post tension concrete –
Modular construction –
Steel and connections, welds, bolts, anchors –
Fire spray tests –
Smoke control –
Seismic, wind designs, Quality Assurance –
Retaining wall –
Masonry –
Wood –
Alternate Methods –
EFIS –
Other (describe) –
Other (describe) –
Owner or agent –

ENERGY SUMMARY

(This section for new, additions change of use and interior completion.)
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 WOOD TRUSSES
U-Value of total assembly 0.033
R-Value of insulation R-30
Skylights in each assembly
U-Value of skylight N/A
total square footage of skylights in each assembly N/A
Exterior Walls (each assembly)
Description of assembly 6" WOOD STUDS w/ R-19 BATT INSULATION
U-Value of total assembly 0.052
R-Value of insulation R-19
Openings (windows or doors with glazing)
U-Value of assembly .041
shading coefficient .55
projection factor N/A
low e required, if applicable YES
Door R-Values R-6
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 –

MECHANICAL SUMMARY N/A - SEE MECHANICAL SHEETS

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
Method of Compliance: ☐ Prescriptive ☐ Performance ☐ Energy Cost Budget
THERMAL ZONE
Exterior design conditions
Winter dry bulb
Summer dry bulb
Interior design conditions
Winter dry bulb
Summer dry bulb
Relative humidity
BUILDING HEATING LOAD
BUILDING COOLING LOAD
MECHANICAL SPACING CONDITIONING SYSTEM
Unitary
Description of unit
Heating efficiency
Cooling efficiency
Heat output of unit
Cooling output of unit
Boiler
Total boiler output. If oversized, state reason.
Chiller
Total chiller capacity. If oversized, state reason.
LIST EQUIPMENT EFFICIENCIES
EQUIPMENT SCHEDULES WITH MOTORS (mechanical systems)
Motor horsepower
Number of phases
Minimum efficiency
Motor type
# of poles

SHELL VARIABLE FORM N/A

Check each applicable line to match scope of work. Edit as necessary to provide clear detail of installation.
MECHANICAL:
■ No work ☐ Equipment set___ with___ without power ☐ Gas line
☐ Trunk line installed___ with___ without outlets ☐ Install complete operational system
☐ Other
PLUMBING:
■ No work ☐ Install water service and sewer ☐ Install complete plumbing system
☐ Install building drain___ and___ or water distribution main___ with___ without branches
☐ Other
SPRINKLER:
☐ Install complete plumbing system
BUILDING:
☐ Install slab___ partial___ complete ☐ Install demising walls
☐ Install interior partitioning___ partial___ complete ☐ Install ceilings
☐ White box (additional interior completion permits are required for Certificate of Occupancy and power)
☐ Other
ELECTRICAL:
☐ House panel (CONNECTING TO) ☐ Service laterals to meter centers/panels located on buildings
☐ Demise wall and ceilings only ☐ Conduit, duct, raceway, in slab
☐ Power and lighting circuits to "J" Box ☐ Install light fixtures
☐ Install___ Heat/AC___ Elevator___ Generator___ Parking lot lighting
☐ Install complete system
☐ Other

Please Provide full information on any Alternative Methods and Means incorporated into the design of this project. Provide specific details and incorporate into plan submittal any supporting documents or agreement letters.

ROBERT C. EVANS REGISTERED ARCHITECT 6530 FAYETTEVILLE, NORTH CAROLINA

11.27.18

ROBERT CHARLES EVANS ARCHITECT
ARCHITECTURE
545 Pearl Street Fayetteville North Carolina 28303

Mohler Homes, Inc.
Office Building

Drawing Name:
Appendix B

Project Name:
An Office Building for
Mohler Homes, Inc.

Project Location:
Lot 5 Comm Park Ln.
Angier
North Carolina

DRAWINGS AND THE DESIGN ARE THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THE DRAWINGS SHALL NOT BE USED BY THE PROJECT OWNER OR ANYONE ELSE FOR ANY OTHER PROJECT.

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PROJECT NO:	18-109
DRAWN BY:	RCE.
DATE:	11.27.18
REVISIONS:	

SHEET NO: COV2