

# 2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (except 1 and 2 family dwellings and townhouses)

**PROJECT NAME**

NAME OF PROJECT: CRABTREE NORTH APARTMENTS - BUILDING #3  
 ADDRESS: 2251 CHARLES DRIVE, RALEIGH, NC ZIP CODE: 27612  
 OWNER / AUTHORIZED AGENT: CHARLES WATTS PHONE # 704 560 4001 E-MAIL cwatts@wattsleaf.com  
 OWNED BY:  CITY/COUNTY  PRIVATE  STATE  
 CODE ENFORCEMENT JURISDICTION:  CITY\_RALEIGH  COUNTY\_WAKE  STATE

**CONTACT:**

DESIGNER	NAME/FIRM	LICENSE #	TELEPHONE #	E-MAIL
ARCHITECTURAL	CHARLES WATTS AIA WATTS LEAF ARCHITECTS	4586	704 376 1200	cwatts@wattsleaf.com
CIVIL				
ELECTRICAL	GREG ANDREWS CHARLOTTE MECHANICAL	26004	704 688 9320	greg.andrews@cmeplc.com
FIRE ALARM				
PLUMBING	GREG ANDREWS CHARLOTTE MECHANICAL	26004	704 688 9320	greg.andrews@cmeplc.com
MECHANICAL	GREG ANDREWS CHARLOTTE MECHANICAL	26004	704 688 9320	greg.andrews@cmeplc.com
SPRINK. STANDPIPE				
STRUCTURAL	FATH OKTEN STRUCTURAL CONSULTING GROUP	44884	678 513 4242	fokten@scg-att.com
RETAINING WALLS >5'H				
POST TENSIONED SLAB				
PRE-FAB WOOD TRUSS				
OTHER				

(OTHER SHOULD INCLUDE FIRMS AND INDIVIDUALS SUCH AS TRUSS, PRECAST, PRE-ENGINEERED, INTERIOR DESIGNERS, ETC.)

**2018 NC BUILDING CODE:**  NEW BUILDING  ADDITION  1ST TIME INTERIOR COMPLETIONS  
 SHELLCORE  PHASED CONSTRUCTION  
 \*CONTACT THE LOCAL INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES AND REQUIREMENTS.

**2018 NC EXISTING BUILDING CODE:**  PRESCRIPTIVE  ALTERATION LEVEL I  HISTORIC PROPERTY  
 REPAIR  ALTERATION LEVEL II  CHANGE OF USE  
 CHAPTER 14  ALTERATION LEVEL III

CONSTRUCTED: (DATE) \_\_\_\_\_ CURRENT OCCUPANCY(S): (CH. 3) \_\_\_\_\_  
 RENOVATED: (DATE) \_\_\_\_\_ PROPOSED OCCUPANCY(S): (CH. 3) \_\_\_\_\_  
 OCCUPANCY CATEGORY: (TABLE 1004.5) CURRENT: \_\_\_\_\_ PROPOSED: \_\_\_\_\_

**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  NFPA 13  NFPA 13R  NFPA 13D

STANDPIPES:  NO CLASS  II  III  WET  DRY

PRIMARY FIRE DISTRICT:  NO  YES FLOOD HAZARD AREA:  NO  YES

SPECIAL INSPECTIONS REQUIRED:  NO  YES  
 IF SPECIAL INSPECTIONS ARE REQUIRED, CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES AND REQUIREMENTS.

**GROSS BUILDING AREA TABLE:**

FLOOR	EXISTING (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTAL
5TH FLOOR	-	-	-
4TH FLOOR	-	18,823	18,823
3RD FLOOR	-	18,823	18,823
2ND FLOOR	-	18,823	18,823
MEZZANINE	-	-	-
1ST FLOOR	-	19,033	19,033
BASEMENT	-	-	-
TOTAL	-	75,502	75,502

**ALLOWABLE AREA**

PRIMARY OCCUPANCY:  
 ASSEMBLY  A-1  A-2  A-3  A-4  A-5  
 BUSINESS   
 EDUCATIONAL   
 FACTORY  F-1 MODERATE  F-2 LOW  
 HIGH-HAZARD  H-1 DETONATE  H-2 DEFLAGRATE  H-3 COMBUST  H-4 HEALTH  H-5 HARM  
 INSTITUTIONAL  I-1  I-2  I-1 & I-2 CONDITION  I-3  I-4  I-3 USE CONDITION  I-5  I-6  I-7  
 MERCANTILE   
 RESIDENTIAL  R-1  R-2  R-3  
 STORAGE  S-1 MODERATE  S-2 LOW  S-3 HIGH-PILED  
 PARKING GARAGE  OPEN  ENCLOSED  REPAIR GARAGE  
 UTILITY AND MISC.   
 ACCESSORY OCCUPANCY CLASSIFICATION:  
 INCIDENTAL USES (TABLE 509):  
 SPECIAL USES (CHAPTER 4 - LIST CODE SECTIONS):  
 SPECIAL PROVISIONS (CHAPTER 5 - LIST CODE SECTIONS):  
 MIXED OCCUPANCY:  NO  YES SEPARATION: \_\_\_\_\_ HR. EXCEPTION: \_\_\_\_\_  
 NON-SEPARATED USE (508.3)  
 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 \_\_\_\_\_ < 1

**ALLOWABLE AREA CONTINUED**

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 PER STORY OR UNLIMITED <sup>3,4</sup>
LEVEL 312.05	R2	17,916	12,000	6,384	18,384
LEVEL 325.25	R2	17,916	12,000	6,384	18,384
LEVEL 336.94	R2	17,916	12,000	6,384	18,384
LEVEL 344.63	R2	17,916	12,000	6,384	18,384
TOTAL		71,664			73,536

<sup>1</sup>FRONTAGE AREA INCREASES FROM SECTION 506.2 ARE COMPUTER THUS:  
 a. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = 473 (F)  
 b. TOTAL BUILDING PERIMETER = 605 (F)  
 c. RATIO (F/P) = .782 (F/P)  
 d. W = MINIMUM WIDTH OF PUBLIC WAY = 30 (W)  
 e. PERCENT OF FRONTAGE INCREASE IF = 100(F/P - 0.25) X W/30 = .532 (%)  
<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. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.3.1.  
<sup>5</sup>FRONTAGE INCREASE IS BASED ON THE UNSPRINKLED AREA VALUE IN TABLE 506.2.

**ALLOWABLE HEIGHT**

BLDG. HT. IN FEET (TABLE 504.3)	ALLOWABLE HEIGHT	SHOWN ON PLANS	CODE REFERENCE
BLDG. HT. IN STORIES (TABLE 504.4)			

<sup>1</sup>PROVIDE CODE REFERENCE IF THE "SHOWN ON PLANS" QUANTITY IS NOT BASED ON TABLE 504.3 OR 504.4.

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ. D	PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME INCLUDING COLUMNS, GIRDERS, TRUSSES	0						
BEARING WALLS	0						
EXTERIOR	0						
WEST	0						
EAST	0						
SOUTH	0						
INTERIOR	0						
NON-BEARING WALLS AND PARTITIONS	0						
EXTERIOR WALLS	0						
WEST	0						
EAST	0						
SOUTH	0						
INTERIOR WALLS AND PARTITIONS	0						
FLR. CONSTRUCTION INCLD. SUPPORTING BEAMS & JOISTS	0						
FLOOR CEILING ASSEMBLY	0						
COLUMNS SUPPORTING FLOORS	0						
ROOF CONSTRUCTION INCLD. SUPPORTING BEAMS AND JOISTS	0						
ROOF CEILING ASSEMBLY	0						
COLUMNS SUPPORTING ROOF	0						
SHAFT ENCLOSURES - ELEV.	N/A						
SHAFT ENCLOSURES - HORIZ.	N/A						
TERRACE PARAPET	N/A						
WALLS	N/A						
CEILING	N/A						
PARAPET	N/A						
SMOKE BARRIER	N/A						
SMOKE PARTITION	N/A						
MECHANICAL ROOMS	N/A						
MECHANICAL ROOMS	N/A						
INDICATE SECTION NUMBER PERMITTING REDUCTION							

**PERCENTAGE OF WALL OPENING CALCULATIONS**

(TABLE 705.2)	FIRE SEPARATION DISTANCE (FT)	DEGREE OF OPENINGS PROTECTIONS (TYPED)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (B)
NORTH				
WEST				
SOUTH				
EAST				

**LIFE SAFETY SYSTEM REQUIREMENTS**

EMERGENCY LIGHTING	<input type="checkbox"/> NO <input type="checkbox"/> YES
EXIT SIGNS	<input type="checkbox"/> NO <input type="checkbox"/> YES
FIRE ALARM	<input type="checkbox"/> NO <input type="checkbox"/> YES
SMOKE DETECTION SYSTEMS	<input type="checkbox"/> NO <input type="checkbox"/> YES
CARBON MONOXIDE DETECTION	<input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PARTIAL

**LIFE SAFETY PLAN REQUIREMENTS (N/A)**

LIFE SAFETY PLAN SHEET #:

FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7): N/A  
 ASSUMED AND REAL PROPERTY LINE LOCATIONS IF NOT ON SITE PLANS: N/A  
 EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8): N/A  
 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 (1006.2.1 & 1006.3.2(1))  
 REAR END LENGTHS (1009.4): N/A  
 CLEAR EXIT WIDTHS FOR EACH EXIT DOOR  
 MAX. 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: N/A  
 LOCATION OF DOORS WITH PANIC HARDWARE (1010.1.10): N/A  
 LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1010.1.9.7): N/A  
 LOCATION OF DOORS WITH ELECTRONIC EGRESS LOCKS (1010.1.9.9): N/A  
 LOCATION OF DOORS WITH HOLD-OPEN DEVICES: N/A  
 LOCATION OF EMERGENCY ESCAPE WINDOWS (1030): N/A  
 THE SQUARE FOOTAGE OF EACH FIRE AREA (202): N/A  
 THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT FOR OCCUPANCY CLASSIFICATION I-2 (407.5): N/A  
 NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

**ACCESSIBLE DWELLING UNITS (SECTION 1107) N/A**

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

**ACCESSIBLE DWELLING UNITS - ENTIRE SITE (SECTION 1107) N/A**

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

(OVERALL SITE COUNT - SEE PLAN FOR TYPE A LOCATIONS)

**ACCESSIBLE PARKING (SECTION 1106) EXISTING**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	REGULAR WITH ACCESS AISLE	VAN SPACES WITH 11' ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
						2

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**  
 EXISTING - UPDATE EXISTING WC & LAVS

SPACE	EXISTING	WATERCLOSETS			URINALS			LAVATORIES			SHOWERS/TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX	MALE	FEMALE	REGULAR		ACCESSIBLE	

**SPECIAL APPROVALS**  
 (LOCAL JURISDICTION, NC DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, 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 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:  (IF CHECKED THE REMAINDER OF THIS SECTION IS NOT APPLICABLE)

EXEMPT BUILDING:  (PROVIDE CODE OR STATUTORY REFERENCE)

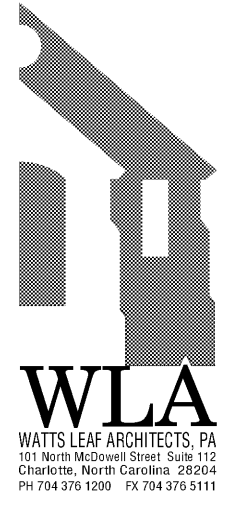
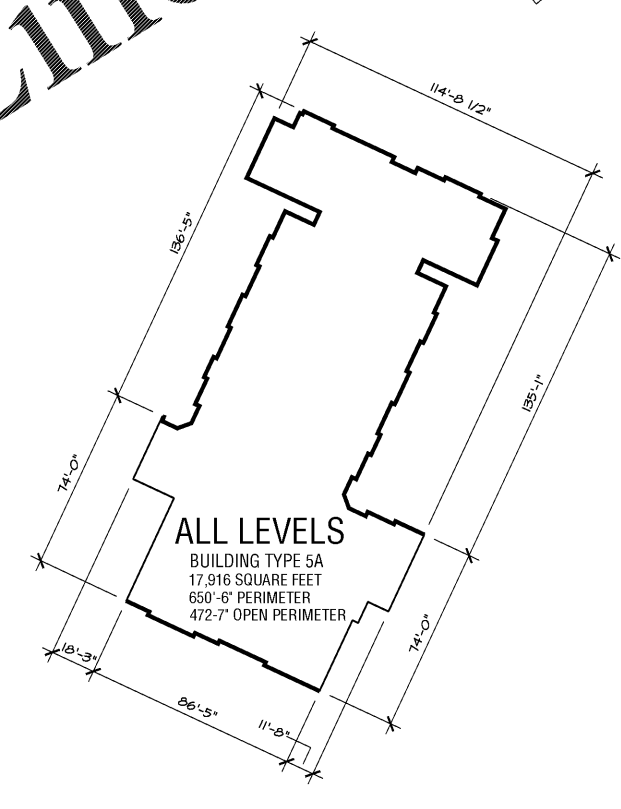
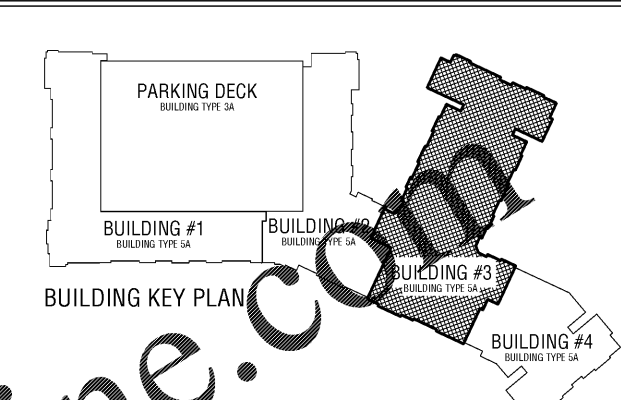
CLIMATE ZONE:  3A  4A  5A

METHOD OF COMPLIANCE:  
 ENERGY CODE  PERFORMANCE  PRESCRIPTIVE  
 ASHRAE 90.1  PERFORMANCE  PRESCRIPTIVE  
 OTHER  PERFORMANCE (SPECIFY SOURCE)

**STRUCTURAL DESIGN NOT APPLICABLE**

**MECHANICAL DESIGN SEE NOTES ON M1.1**

**ELECTRICAL DESIGN SEE NOTES ON E1.1**



**CRABTREE NORTH APTS.**  
 2251 Charles Drive  
 Raleigh, North Carolina  
 EYC COMPANIES

PROJECT	1915
DATE	04DEC19
DRAWN BY	WJP
CHECKED BY	CMW
CODE SUMMARY - BUILDING #3	
<b>A0.03</b>	