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UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE
BROCKER HEALTH CENTER
SHELL SPACE UPFIT

CODE: 40226
ITEM: 302

ARCHITECT
HARRELL, SALTRICK & HOPPER
8016 TOWER POINT DRIVE
CHARLOTTE, NC 28227
P: 704.814.1320 F:704.321.0833

PLUMBING, MECHANICAL & ELECTRICAL ENGINNER
HARRELL, SALTRICK & HOPPER
8016 TOWER POINT DRIVE
CHARLOTTE, NC 28227
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NORTH CAROLINA STATE BUILDING CODE APPENDIX B

Name of Project: UNCC – BROCKER HEALTH CENTER SHELL SPACE UPFIT
Address: UNC CHARLOTTE, CHARLOTTE, NORTH CAROLINA Zip Code: 28223
Proposed Use: STUDENT HEALTH CENTER
Owner/Authorized Agent: SHERRY CEALLAGH Phone #: (704) 687-2773 Email: SCEALLAG@UNCC.EDU
Owned By: ☐ City/County ☐ Private ☒ State
Code Enforcement Jurisdiction: ☐ City/County ☐ Private ☒ State

Lead Design Professional: TINEN NGUYEN, AIA EMAIL: TNGUYEN@HSHPC.COM

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	EMAIL
Architectural:	HSH	TINEN NGUYEN	9060	704-814-1320	TNGUYEN@HSHPC.COM
Civil:	N/A	N/A	N/A	N/A	N/A
Electrical:	HSH	LEE E. HARRELL	25444	704-814-1320	LEH@HSHPC.COM
Fire Alarm:	HSH	LEE E. HARRELL	25444	704-814-1320	LEH@HSHPC.COM
Plumbing:	HSH	DAVID HOOD	30849	704-814-1320	DHOOD@HSHPC.COM
Mechanical:	HSH	HENRY L. HOPPER	7586	704-814-1320	HLH@HSHPC.COM
Sprinkler/Fire Protection:	HSH	DAVID HOOD	30849	704-814-1320	DHOOD@HSHPC.COM
Structural:	N/A	N/A	N/A	N/A	N/A
Retaining Walls (5' H):	N/A	N/A	N/A	N/A	N/A

= HARRELL, SALTRICK, & HOPPER, PC

2006 EDITION OF NC CODE FOR: ☐ New Construction ☐ Addition ☒ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair
COMPLIED WITH: ORIGINAL USE: RENOVATED: CURRENT USE:

BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A ☐ I-B ☒ II-B ☐ III-B ☐ V-B
Mixed Construction: ☒ No ☐ Yes Type: N/A
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
Building Height: Feet N/A Number of Stories N/A
Mezzanine: ☒ No ☐ Yes
High Rise: ☒ No ☐ Yes Central Reference Sheet # (if provided) N/A
Gross Building Area:

FLOOR	EXISTING (SQ FT)	UPFIT (SQ FT)	SUB-TOTAL
1st Floor	N/A	1,350 SF	N/A
2nd Floor	N/A	3,030 SF	N/A
Mezzanine	N/A	N/A	N/A
Gross Total Area:	N/A	4,380 SF	N/A

OCCUPANT LOAD
Primary Occupancy:
Assembly: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☒ Business ☐ Educational Factory I-F-1 Moderate ☐ F-2 Low
Nonresidential: ☐ I-1 Ambulatory ☐ I-2 Bedbound ☐ I-3 Constrained ☐ I-4 Foster ☐ I-5 Hospital
Institutional: ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
-2 Use Condition: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Hazardous Occupancy: ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4
Storage: ☐ S-1 Moderate ☐ S-2 Low ☐ High-Piled
☐ Utility & Miscellaneous ☐ Parking Garage ☐ Repair ☐ Crossed ☐ Repair Garage
Secondary Occupancy: N/A
Special Occupancy: ☐ 508.2 ☐ 508.3 ☐ 508.4 ☐ 508.5 ☐ 508.6 ☐ 508.7 ☐ 508.8
Mixed Occupancy: ☒ No ☐ Yes Separation: Hr. Separation: N/A
☐ Non-Separated Mixed Occupancy (508.3 Exception)
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, as determined, shall apply to the entire building.
☐ Separated Mixed Occupancy (508.3.1/508.3.2) – See table for area calculations
For each story, the ratio 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
Allowable Area of Occupancy A Allowable Area of Occupancy B ≤ 1.00
N/A + N/A = N/A ≤ 1.00

SYMBOL	DESCRIPTION FIRE RTG	(X) FIRE RTG FOR 1 STORY (ACTUAL)	(Y) FIRE RTG FOR 2 STORIES	(Z) FIRE RTG FOR 3 STORIES	(Y) FIRE RTG FOR SPRINKLER 2 STORIES	(Z) FIRE RTG FOR SPRINKLER 3 STORIES	(Y) ALLOWABLE AREA FOR 2 STORIES	(Z) ALLOWABLE AREA FOR 3 STORIES
NO CHANGES TO EXISTING FLOOR PLAN OR OCCUPANCY								

[1] Open space area increases from Section 506.2 are computed thru:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = N/A (F)
b. Total Building Perimeter = N/A (P)
c. Ratio (F/P) = N/A (F/P)
d. Minimum width of public way = N/A (W)
e. Percent of frontage increase = 100 (F/P-1)(W/30) = N/A (I_f)
[2] The sprinkler increase per Section 506.3 is as follows:
a. Multi-story building I_s = 200 %
b. Single story building = 300 %
[3] Unlimited area applicable under conditions of Sections for Group B, F, M, S, A-4 (307.1, 307.2, 307.3, 307.4); Group A motion pictures (907.2); Malls (402.8); and H-7 aircraft paint hangers (307.8).
[4] Maximum Building Area = total number of stories in the building x A, but not greater than 3 x A
[5] Total enclosed area of parking garages must comply with 406.3.5. The maximum area of parking garages must comply with 406.3.5. The maximum area of all traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE FIRE RTG	ACTUAL FIRE RTG PROVIDED	ABOVE AS TYPED	ABOVE AS TYPED
Type of Construction:	Type: EXISTING TO REMAIN (EXIST)		Type: EXIST	–
Allowed Height in Feet:	Feet: EXIST	EXIST	Feet: EXIST	–
Building Height in Stories:	Stories: EXIST	EXIST	Stories: EXIST	–

FIRE PROTECTION REQUIREMENTS (Life Safety Plan Sheet # if applicable) N/A

	(A) STRUCTURAL FRAME PER TABLE 601	(B) FIRE SEPARATION DISTANCE	(C) TYPE OF CONSTRUCTION	(D) EXTERIOR WALL RATING	(E) EXTERIOR OPENINGS	(F) RATING OF STRUCTURE	(G) RATING OF PARTIALLY EXTERIOR WALLS
Structural Frame (including columns, girders and trusses)	N/A	0	0	–	–	–	–
Bearing Walls							
Exterior							
North	N/A	0	0	–	–	–	–
East	N/A	0	0	–	–	–	–
West	N/A	0	0	–	–	–	–
South	N/A	0	0	–	–	–	–
Interior	N/A	0	0	–	–	–	–
Nonbearing Walls and Partitions							
Exterior							
North	N/A	N/A	N/A	–	–	–	–
East	N/A	N/A	N/A	–	–	–	–
West	N/A	N/A	N/A	–	–	–	–
South	N/A	N/A	N/A	–	–	–	–
Interior	N/A	0	0	–	–	–	–
Floor Construction (including supporting beams and joists)	N/A	0	0	–	–	–	–
Roof Construction (including supporting beams and joists)	N/A	0	0	–	–	–	–
Corridor Separation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Occupancy Separation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Party/Fire Wall Separation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Smoke Barrier Separation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tenant Separation	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

ROOM OR AREA DESCRIPTION	REQUIRED NUMBER OF EXITS		ACTUAL NUMBER OF EXITS		ACTUAL TRAVEL DISTANCE (FEET)	ACTUAL COMMON PATH OF TRAVEL (FEET)	ACTUAL DEAD END CORRIDOR (FEET)	ACTUAL EXIT ACCESS WIDTH (INCHES)	ACTUAL EXIT DISCHARGE WIDTH (INCHES)
	ROOM	ZONE	ROOM	ZONE					
NO CHANGES TO EXISTING FLOOR PLAN OR OCCUPANCY									

[1] Corridor dead ends (Section 1004.3.3.3)
[2] Single Exits (Table 1004.2.2)
[3] Common Path of Travel (Section 1004.2.5)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(G) AREA PER FLOOR	(H) FIRE PROTECTION SYSTEM	(I) ACTUAL WIDTH PER EXTERIOR EXIT DOOR (TOTAL WIDTH)	EXIT WIDTH CALCULATIONS			
				HORIZONTAL PATH (STAIRS, CORRIDORS, RAMPS, ETC.)		VERTICAL PATH (STAIRS ONLY)	
				STAIR	LEVEL	STAIR	LEVEL
NO CHANGES TO EXISTING FLOOR PLAN OR OCCUPANCY							

[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] The sprinkler increase per Section 506.3 is as follows:
a. Multi-story building = 200 %
b. Single-story building = 300 %
[4] Minimum stairway width (Section 1003.3.3); min. corridor width (Section 1003.3.1); minimum width of exit passageway (Section 1003.3.2)
[5] 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 1028)

STRUCTURAL DESIGN NOTE: NO CHANGES TO EXISTING BUILDING STRUCTURE OR ENVELOPE

DESIGN LOADS:
Importance Factors: Wind (I_w) N/A
Snow (I_s) N/A
Seismic (I_E) N/A
Live Loads: Roof N/A psf
Mezzanine N/A psf
Floor N/A psf
Snow Loads: N/A psf
Wind Loads: Basic Wind Speed N/A mph (ASCE-7-98)
Exposure Category N/A
Wind Base Shears (for MWFRS) V_b = N/A V_s = N/A

SEISMIC DESIGN CATEGORY A
Compliance with Section 1616.6 only? ☐ Yes ☐ No N/A

SEISMIC DESIGN CATEGORY ☒ B ☐ C ☐ D EXISTING
Provide the following Seismic Design Parameters:
Seismic Use Group = I
Spectral Response Acceleration S_s = 0.500 S_1 = 0.104
Site Classification = C
Force 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_s = ... V_b = ...
Analysis Procedure ☐ Simplified ☐ Equivalent Lateral Force ☐ Modal
Architectural, Mechanical, components anchored

LATERAL DESIGN CONTROL: ☐ Wind ☐ Earthquake

SOIL BEARING CAPACITIES:
Field test (provide copy of test report) N/A psf
Presumptive Bearing Capacity N/A psf
File name, type, and capacity N/A

NOTE: "THE EXISTING BUILDING PLUMBING WAS CALCULATED WITH THESE UPFIT SPACES AND WAS REVISED PREVIOUSLY TOGETHER AS A PACKAGE. NO CHANGES TO EXISTING BUILDING AREA OR OCCUPANCY COUNT SINCE LAST SUBMITTAL."

PLUMBING FIXTURES REQUIREMENTS

OCCUPANCY	MALE		FEMALE		UNISEX		LAVATORIES		DRINKING FOUNTAINS	
	WC	UR	WC	UR	WC	UR	MALE	FEMALE	REGULAR	ACCESSIBLE
FIRST FLOOR (EXISTING)	–	–	–	–	–	–	–	–	–	–
SECOND FLOOR (EXISTING)	–	–	–	–	–	–	–	–	–	–

NOTE: NO CHANGES TO EXISTING BUILDING AREA, OCCUPANCY, OR PARKING

ACCESSIBLE PARKING

USE OF THE PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED	
	REQUIRED	PROVIDED	REGULAR WAY OF ACCESS WAY	VAN SPACES WAY OF ACCESS WAY
N/A	N/A	N/A	N/A	N/A

SPECIAL APPROVALS
Special approvals (Local Jurisdiction, Department of Insurance, SBCCI, ICC, etc., describe below):
NO SPECIAL APPROVALS REQUIRED

SCHEDULE OF SPECIAL INSPECTION SERVICES
☒ No special inspections required for this project. ☐ Special inspections required
The following checks comprise the required schedule of special inspections for this project. The contractor statement which require special inspections for this project are as follows:
☐ II-1 Verification of Soils
☐ II-2 Excavation and Fill
☐ II-3 Piling and Drilled Piers
☐ II-4 Modular Masonry Units
☐ II-5 Prestressed Concrete
☐ II-6 Post Tension Slab
☐ II-7 Pre-Cast Concrete Erection
☐ II-8 Pre-Stressed Concrete
☐ II-9 Inspections of Pre Cast Fabricators
☐ II-10 Inspections of Structural Steel Fabricators
☐ II-11 Structural Masonry
☐ II-12 Welding
☐ II-13 High Strength Bolts and Steel Framing Insp.
☐ II-14 Systems Fire-Resistance Materials
☐ II-15 Exterior Insulation and Finish Systems
☐ II-16 Seismic Installations
☐ II-17 Smoke Control
☐ II-18 Detention Basic
☐ II-19 Special Cases

ENERGY SUMMARY

ENERGY REQUIREMENTS
The following data shall be considered minimum energy specific attributes 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, show the annual energy cost budget or allowable energy cost budget.
THERMAL ENVELOPE
Method of Compliance:
☒ Prescriptive ☐ Performance ☐ Energy Cost Budget

Roof/Ceiling Assembly – Pitched Roof Area:
Description of assembly: NO CHANGES TO EXISTING ASSEMBLY
U-Value of total assembly: N/A
R-Value of insulation: N/A
Skylight in each assembly: N/A
U-Value of skylight: N/A
Total square footage of skylight in each assembly: N/A

Exterior Walls
Description of assembly: NO CHANGES TO EXISTING ASSEMBLY
U-Value of total assembly: N/A
R-value of insulation: N/A
Openings (windows or doors with glazing)
U-Value of assembly: N/A
Shading coefficient: N/A
Projection Factor: N/A
Tint – is required, if applicable: N/A
Door R-value: N/A

Walls adjacent to unconditioned space (each assembly)
Description of assembly: NO CHANGES TO EXISTING ASSEMBLY
U-Value of total assembly: N/A
R-value of insulation: N/A

Walls below grade (each assembly)
Description of assembly: NO CHANGES TO EXISTING ASSEMBLY
U-Value of total assembly: N/A
R-value of insulation: N/A

Floors over unconditioned space (each assembly)
Description of assembly: NO CHANGES TO EXISTING ASSEMBLY
U-Value of total assembly: N/A
R-value of insulation: N/A

Floor above on grade
Description of assembly: NO CHANGES TO EXISTING ASSEMBLY
U-Value of total assembly: N/A
R-value of insulation: N/A
Perimeter/Area requirement: N/A
Slab heated: N/A

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance:
☒ Prescriptive ☐ Performance ☐ Energy Cost Budget

Lighting schedule
lamp type required for fixture: SEE LIGHT FIXTURE SCHEDULE
number of lamps in fixture: SEE LIGHT FIXTURE SCHEDULE
ballast type used in the fixture: SEE LIGHT FIXTURE SCHEDULE
number of ballasts in fixture: SEE LIGHT FIXTURE SCHEDULE
total wattage per fixture: SEE LIGHT FIXTURE SCHEDULE
total interior wattage specified vs. allowed: W/ FIXTURE VS. 1.W/SQ.FT.
total exterior wattage specified vs. allowed: SOURCE EFFICACY SHALL BE MINIMUM 45 LUMENS PER WATT

Equipment schedules with motors (not used for mechanical systems)
motor horsepower: ALL MOTORS ON THIS PROJECT ARE ASSOCIATED WITH MECH. SYSTEMS
number of phases
minimum efficiency
motor type
# of poles

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SEISMIC SYSTEMS AND EQUIPMENT

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

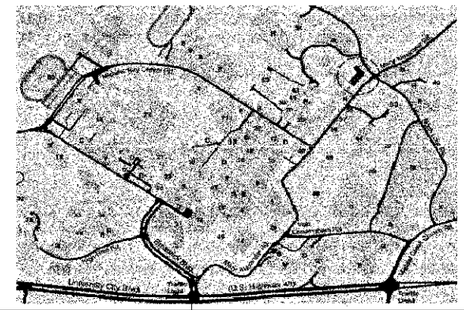
Thermal Zone: 7A
winter dry bulb: 16° F.
summer dry bulb: 91° F.

Interior design conditions
winter dry bulb: 70° F.
summer dry bulb: 75° F.
relative humidity: 50% (FULL CLASS. IN COOLING SEASON)

Building heating load: 1,137,000 BTUH
Building cooling load: 110 TONS

Mechanical Heating Conditioning Systems NOTE: "EXISTING BUILDING – SHELL SPACE UPFIT"
Unitary
description of unit: N/A
heating efficiency: N/A
total output of unit: N/A
cooling output of unit: N/A
Boiler
total boiler output: 1,260,000 BTUH
Chiller
total chiller capacity: if oversized, state reason: 110 TONS

List equipment efficiencies:

Equipment schedules with motors (mechanical systems)
motor horsepower: EXISTING
number of phases: EXISTING
minimum efficiency: EXISTING
motor type: EXISTING
# of poles: EXISTING

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