2012 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: LINDSEY PETRIS CAFETERIA & DINING SERVICES ADDITION VOL. I
Address: 1042 WEST HAMLET AVE., HAMLET N.C. Zip Code 28345
Proposed Use: BUSINESS
Owner/Authorized Agent: RICHMOND COMMUNITY COLLEGE Phone # (910) 410 – 1700
Owned By: ■ City/County ☐ Private ☐ State
Code Enforcement Jurisdiction: ☐ City ■ County ■ State

LEAD DESIGN PROFESSIONAL: JAMES G. POWELL, ARCHITECT

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	ADW ARCHITECTS PA	JAMES POWELL	[illegible]	(704) 379-1919	[illegible]@ADWARCHITECTS.COM
Civil	BENESCH ENGINEERING	WESLEY WHEELL	15875	(704) [illegible]	[illegible]@BENESCH.COM
Electrical	OPTIMA ENGINEERING	KEITH PERL	15457	(704) 338-1292	KPERL@OPTIMA.COM
Fire Alarm	OPTIMA ENGINEERING	KEITH PERL	15457	(704) 338-1292	KPERL@OPTIMA.COM
Plumbing	OPTIMA ENGINEERING	GEORGE TOWLER	[illegible]	(704) 338-1292	GTOWLER@OPTIMA.COM
Mechanical	OPTIMA ENGINEERING	RON ALMOND	[illegible]	(704) 338-1292	RALMOND@OPTIMA.COM
Sprinkler-Standpipe				( )	
Structural	STEWART ENGINEERING	LANCE WILLIAMS	[illegible]	([illegible]) [illegible]	[illegible]@STEWARTINC.COM
Retaining Walls >5' High				( )	
Other				( )	

2012 EDITION OF NC CODE FOR: ☐ New Construction ■ Addition ☐ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☐ Renovation
CONSTRUCTED: (date) 1968 **ORIGINAL USE(S)** (Ch. 3): BUSINESS
RENOVATED: (date) 2005 **CURRENT USE(S)** (Ch. 3): BUSINESS
PROPOSED USE(S) (Ch. 3): BUSINESS

BASIC BUILDING DATA
Construction Type: (check all that apply) ☐ I-A ☐ I-B ■ II-A ☐ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☐ 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 (Primary) **Flood Hazard Area:** ■ No ☐ Yes
Building Height: (feet) 21'-0"
Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
6th Floor			
5th Floor			
4th Floor			
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	38202	4944	43146
Basement			
TOTAL	38202	4944	43146

ALLOWABLE AREA

Occupancy:
- 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 ☐ I-2 ☐ I-3 ☐ I-4
- I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- 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 Occupancies:
- 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 ☐ I-2 ☐ I-3 ☐ I-4
- I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- 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 ☐

Incidental Uses (Table 508.2.5):
- ☐ Furnace room where any piece of equipment is over 400,000 Btu per hour input
- ☐ Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower
- ☐ Refrigerant machine room
- ☐ Hydrogen cutoff rooms, not classified as Group H
- ☐ Incinerator rooms
- ☐ Paint shops, not classified as Group H, located in occupancies other than Group F
- ☐ Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy
- ☐ Laundry rooms over 100 square feet
- ☐ Group I-3 cells equipped with padded surfaces
- ☐ Group I-2 waste and linen collection rooms
- ☐ Waste and linen collection rooms over 100 square feet
- ☐ Stationary storage battery systems having a liquid electrolyte capacity of more [illegible] gallons or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or u[illegible] supplies
- ☐ Rooms containing fire pumps
- ☐ Group I-2 storage rooms over 100 square feet
- ☐ Group I-2 commercial kitchens
- ☐ Group I-2 laundries equal to or less [illegible] 100 square feet
- ☐ Group I-2 rooms or spaces that cont[illegible] fuel-fired heating equipment

Special Uses: ☐ 402 ☐ 403 ☐ 404 ☐ [illegible] ☐ 406 ☐ [illegible] ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ [illegible] ☐ 418 ☐ [illegible] ☐ 420 ☐ 421 ☐ 422 ☐ 423 ☐ 424 ☐ 425 ☐ 426 ☐ 427
Special Provisions: ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9
Mixed Occupancy: ■ No ☐ Yes Separation: ____ Hr. Exception: ________
☐ Incidental Use Separation (508.2.5)

This separation is not exempt as a Non-Separated Use (see exceptions).
■ 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.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

____ + ____ + ____ = ____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503[1] AREA	(C) AREA FOR FRONTAGE INCREASE[1]	(D) AREA FOR SPRINKLER INCREASE[2]	(E) ALLOWABLE AREA OR UNLIMITED[3]	(F) MAXIMUM BUILDING AREA[4]
1	BUSINESS	43146	37500	15000	-	-	52,500

[1] Frontage area increases from Section 506.2 are computed thus:
- a. Perimeter which fronts a public way or open space having 20 feet minimum width = 512 (F)
- b. Total Building Perimeter = 784 (P)
- c. Ratio (F/P) = 512/784=0.65 (F/P)
- d. W = Minimum width of public way = 30 (W)
- e. Percent of frontage increase I_f = 100 [F/P - 0.25] x W/30 = 40 (%)

[2] The sprinkler increase per Section 506.3 is as follows:
- a. Multi-story building I_s = 200 percent
- b. Single story building I_s = 300 percent

[3] Unlimited area applicable under conditions of Section 507.
[4] Maximum Building Area = total number of stories in the building x E (506.4).
[5] The maximum area of open parking garages must comply with Table 406.3.5. The maximum area of air traffic control towers must comply with Table 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
Type of Construction	Type IIA		Type IIA	TABLE 503
Building Height in Feet	65'	Feet = H + 20' = N/A	20'-8"	TABLE 503
Building Height in Stories	5	Stories + 1 = N/A	1	TABLE 503

FIRE PROTECTION REQUIREMENTS

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	N/A	1	1	7/A003 8/A003 9/A003	P717 X661 X771	N/A	N/A
Bearing Walls							
Exterior							
North	N/A	1	N/A	N/A	N/A	N/A	N/A
East	N/A	1	N/A	N/A	N/A	N/A	N/A
West	N/A	1	N/A	N/A	N/A	N/A	N/A
South	N/A	1	N/A	N/A	N/A	N/A	N/A
Interior	N/A	1	N/A	N/A	[illegible]	N/A	N/A
Non-bearing Walls and Partitions							
Exterior walls							
North	> 30'	0	0	N/A	N/A	N/A	N/A
East	21'-0"	1	[illegible]	N/A	[illegible]	N/A	N/A
West	> 30'	0	0	N/A	[illegible]	N/A	N/A
South	> 30'	0	[illegible]	N/A	N/A	N/A	N/A
Interior walls and partitions	> 30'	[illegible]	0	N/A	N/A	N/A	N/A
Floor Construction including supporting beams and joists		1	N/A	N/A	N/A	N/A	N/A
Roof Construction including supporting beams and joists		[illegible]	1	7/A003	P717	N/A	N/A
Shaft Enclosures - Exit		N/A	N/A	N/A	N/A	N/A	N/A
Shaft Enclosures - Other		N/A	N/A	N/A	N/A	N/A	N/A
Corridor Separation		1	N/A	N/A	N/A	N/A	N/A
Occupancy Separation		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
Smoke Barrier Separation		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
Incidental Use Separation		N/A	N/A	N/A	N/A	N/A	N/A

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ■ Yes
Exit Signs: ☐ No ■ Yes
Fire Alarm: ☐ No ■ Yes
Smoke Detection Systems: ☐ No ■ Yes ■ Partial ______
Panic Hardware: ☐ No ■ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: A002
- ■ Fire and/or smoke rated wall locations (Chapter 7)
- ■ Assumed and real property line locations
- ■ Exterior wall opening area with respect to distance to assumed property lines (705.8)

- ■ Existing structures within 30' of the proposed building
- ■ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)
- ■ Occupant loads for each area
- ■ Exit access travel distances (1016)
- ■ Common path of travel distances (1014.3 & 1028.8)
- ☐ Dead end lengths (1018.4)
- ■ Clear exit widths for each exit door
- ■ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
- ■ 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 (1008.1.10)
- ☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
- ☐ Location of doors with electromagnetic egress locks (1008.1.9.8)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1029)
- ☐ The square footage of each fire area (902)
- ☐ The square footage of each smoke compartment (407.4)
- ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

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	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ACCESSIBLE PARKING EXISTING CAMPUS
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	N/A	N/A	N/A	N/A	N/A	N/A

STRUCTURAL DESIGN

DESIGN LOADS:

Importance Factors: Wind (I_W) 1.15; Snow (I_S) 1.1; Seismic (I_E) 1.25

Live Loads: Roof 20 psf; Mezzanine N/A psf; Floor 100 psf

Ground Snow Load: 10 psf

Wind Loads: Basic Wind Speed 95 mph (ASCE-7)
Exposure Category C
Wind Base Shears (for MWFRS) Vx = 26 k Vy = 38 k

SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☒ C ☐ D
Provide the following Seismic Design Parameters:
Occupancy Category (Table 1604.5) ☐ I ☐ II ☒ III ☐ IV
Spectral Response Acceleration S_s 28.8 %g S_1 ____ %g
Site Classification (Table 1613.5.2) ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F
Data Source: ☐ Field Test ☒ Presumptive ☐ Historical Data
Basic 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: Vx = 30k Vy = 30k
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) 2000 psf
Presumptive Bearing capacity ________ psf
Pile size, type, and capacity ________

SPECIAL INSPECTIONS REQUIRED: ☒ Yes ☐ No

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

196 OCCUPANTS WITH 98 MALES - 98 FEMALES

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	SHOWERS/TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXISTING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NEW	1	2	1	2	2	N/A	1	1
	REQUIRED	2	2	N/A	2	2	N/A	1	1

SPECIAL APPROVALS

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

RICHMOND COUNTY AND NORTH CAROLINA STATE CONSTRUCTION OFFICE

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.

Climate Zone: ☒ 3 ☐ 4 ☐ 5

Method of Compliance:
- ☒ Prescriptive (Energy Code)
- ☐ Performance (Energy Code)
- ☐ Prescriptive (ASHRAE 90.1)
- ☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE

Roof/ceiling Assembly (each assembly)
Description of assembly: 1-ply PVC, ½" cover board, 5" rigid polyiso. ins., 1-1/2" metal deck
U-Value of total assembly: U-0.029
R-Value of insulation: R-34
Skylights in each assembly: 0
U-Value of skylight: 0
total square footage of skylights in each assembly: 0

Exterior Walls (each assembly)
Description of assembly: 5/8" gyp., 6" metal studs w/R-19 b[illegible] ins., [illegible]" gyp. sheathing, [illegible] rigid xps c.i., air space and brick veneer
U-Value of total assembly: U-0.034
R-Value of insulation: R-19+R-10c.i.[illegible]
Openings (windows or doors with glazing)
U-Value of assembly: 0.21
Solar heat gain coefficient: [illegible].27
projection factor: [illegible]
Door R-Values: 0[illegible]

Walls below grade (each assembly)
Description of assembly: None
U-Value of total assembly: [illegible]
R-Value of insulation: 0

Floors over unconditioned space (each assembly)
Description of assembly: None
U-Value of total assembly: 0
R-Value of insulation: 0

Floors slab on grade
Description of assembly: Compacted fill, crushed stone, vapor barrier, 4" concrete
U-Value of total assembly: 0
R-Value of insulation: 0
Horizontal/vertical requirement: 0
slab heated: 0

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: 22
summer dry bulb: 94

Interior design conditions
winter dry bulb: 72
summer dry bulb: 75
relative humidity: 50% - 60%

Building heating load: 220,600 btuh

Building cooling load: 216,500 btuh

Mechanical Spacing Conditioning System
Unitary
description of unit: single zone dx rooftop units with gas heat and split system heat pumps
heating efficiency: 81%
cooling efficiency: RTU-L25 = 13.9 SEER; RTU-L26 = 11.2 EER; RTU-L27 = 13.0 SEER
size category of unit: RTU-L25 = 3 ton; RTU-L26 = 7.5 ton; RTU-L27 = 4 ton

Boiler
Size category. If oversized, state reason.: n/a
Chiller
Size category. If oversized, state reason.: n/a

List equipment efficiencies: ________

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:
Energy Code: ☒ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance

Lighting schedule (each fixture type)

Fixture ID	Lamp	# of Lamps	Ballast	Wattage
DL1	LED	LED	LED	18 W
DL3	LED	LED	LED	30 W
VTL1	LED	LED	LED	35 W
VTL1A	LED	LED	LED	35 W
STL1	LED	LED	LED	40 W
RLL1	LED	LED	LED	46 W
PLL1	LED	LED	LED	25 W
PLL2	LED	LED	LED	32 W

interior wattage specified: 13652 W
interior wattage allowed: 17368.4 W
exterior wattage specified vs. allowed: N/A

Additional Prescriptive Compliance
- ☐ 506.2.1 More Efficient Mechanical Equipment
- ☒ 506.2.2 Reduced Lighting Power Density
- ☐ 506.2.3 Energy Recovery Ventilation Systems
- ☐ 506.2.4 Higher Efficiency Service Water Heating
- ☐ 506.2.5 On-Site Supply of Renewable Energy
- ☐ 506.2.6 Automatic Daylighting Control Systems

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P 704.379.1919
F 704.379.1920
www.adwarchitects.com

RICHMOND COMMUNITY COLLEGE

SCO #16-15889-02A

RICHMOND COMMUNITY COLLEGE

LINDSEY-PETRIS CAFETERIA/DINING ADDITION VOL.1

BID DOCUMENTS

CODE INFORMATION - APPENDIX B

DATE: 04.05.2019
PROJECT NO: 16063

REVISIONS
NO: DATE: DESCRIPTION:

THIS DRAWING IS THE PROPERTY OF ADW ARCHITECTS, PA. AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR PART. IT SHALL NOT BE USED ON ANY OTHER PROJECT OR GIVEN TO ANY OTHER COMPANY OR AGENCY WITHOUT THE CONSENT OF ADW ARCHITECTS, PA.

JAMES GILMORE POWELL 3434 NORTH CAROLINA CHARLOTTE, N.C.
ADW ARCHITECTS, P.A. CORPORATE SEAL 50223 NORTH CAROLINA
4-5-2019

SHEET NUMBER
A001

Order Plans @ WWW.LDILine.com