Art Room and Foods Lab Alterations to

East Carteret High School

Carteret County Schools
NCDSP Unit 160 - School 313

3263 Hwy. 70 / Beaufort / North Carolina

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, N.C. 27834 / tel 252-757-0333

STRUCTURAL CONSULTANT:
QUEEN ENGINEERING & DESIGN, P.A.
5530 Munford Road Raleigh, North Carolina 27612 tel (919) 420-0480

MEPT ENGINEERING CONSULTANT:
ENGINEERING SOURCE, P.A
102 Regency Boulevard Greenville, North Carolina 27834 tel (252) 439-0338

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ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	INV	INVERT
L	ANGLE	JT	JOINT
AB	ANCHOR BOLT	LAV	LAVATORY
@	AT	MAS	MASONRY
B/B	BACK TO BACK (CURB)	MAX	MAXIMUM
BRG	BEARING	MB	MARKER BOARD
BD	BOARD	MET	METAL
BC	BRICK COURSE	MC	MECHANICAL CONTRACTOR
BLDG	BUILDING	MT	METAL THRESHOLD
CI	CAST IRON	MIN	MINIMUM
CPT	CARPET	MISC	MISCELLANEOUS
CB	CATCH BASIN	NOM	NOMINAL
CLG	CEILING	N	NORTH
CT	CEILING TILE	NIC	NOT IN CONTRACT
CB	CHALKBOARD	NTS	NOT TO SCALE
CJ	CONSTRUCTION JOINT	OC	ON CENTER
CONC	CONCRETE	OPG	OPENING
CMU	CONCRETE MASONRY UNIT	OPP	OPPOSITE
CG	CORNER GUARD	PC	PLUMBING CONTRACTOR
CMP	CORRUGATED METAL PIPE	PLAS	PLASTER
CONT.	CONTINUOUS	PL	PLATE
C & R	CURTAIN & ROD	PT	PRESSURE TREATED
C & T	CURTAIN & TRACK	R	RADIUS
DIA	DIAMETER	REF	REFERENCE
DIM	DIMENSION	RENIF	REINFORCED
DS	DOWNSPOUT	RCP	REINFORCE CONCRETE PIPE
DWR	DRAWER	REQ'D	REQUIRED
EA	EACH	RFS	RUBBER FASTENING STRIP
EC	ELECTRICAL CONTRACTOR	RI	RIGID INSULATION
EIFS	EXTERIOR INSULATION & FIN SYSTEM	R/W	RIGHT OF WAY
ELECT	ELECTRICAL	RD	ROOF DRAIN
EWC	ELECTRIC WATER COOLER	RDL	ROOF DRAIN LEADER
ELEV	ELEVATION	RGH	ROUGH
EQ	EQAUL	SCHED	SCHEDULED
ETR	EXISTING TO REMAIN	SH	SHELF
EXIST	EXISTING	SHTG	SHEATHING
EXP	EXPOSED, EXPANSION	SIM	SIMILAR
EJ	EXPANSION JOINT	SPEC	SPECIFIED
F/F	FACE TO FACE (CURB)	SPECS	SPECIFICATIONS
FIN	FINISH	STD	STANDARD
FE	FIRE EXTINGUISHER	SUSP	SUSPENDED
FEC	FIRE EXTINGUISHER CABINET	TB	TACKBOARD
FHC	FIRE HOSE CABINET	TYP	TYPICAL
FTG	FOOTING	TJC	TYPICAL CONTROL JOINT
FD	FLOOR DRAIN	UON	UNLESS OTHERWISE NOTED
FL	FLOOR	UR	URINAL
FSR	FLEXIBLE SHEET ROOFING	VB	VAPOR BARRIER
GB	GYPSUM WALLBOARD	VERT	VERTICAL
GC	GENERAL CONTRACTOR	VCT	VINYL COMPOSITION TILE
HM	HOLLOW METAL	WC	WATER CLOSET
HOR	HORIZONTAL	WWF	WELDED WIRE FABRIC
INSUL	INSULATION	W/	WITH

DRAWING SYMBOLS

DRAWING IDENTIFICATION MARKERS

201.1

DRAWING NUMBER

SHEET NUMBER

101.1

SECTION MARKER

A
202

ELEVATION (DRAWINGS)

123

DOOR MARKER/NUMBER

HIDDEN LINE OR ABSTRACT LINE

LINE ABOVE

CENTERLINE

MATERIAL SYMBOLS

EARTH

SAND

MORTAR OR GROUT

CONCRETE

BRICK

CONCRETE MASONRY UNIT

STEEL

ROUGH WOOD (CONTINUOUS)

ROUGH WOOD (INTERMITTENT)

FINISH WOOD

PLYWOOD

BATT OR BLOWN INSULATION

RIGID INSULATION

METAL STUD / GYPBOARD WALL

DRAWING INDEX

	COVER
T-1	INDEX / LEGEND / ABBREVIATIONS
BCS-700	BUILDING CODE SUMMARY - ART CLASSROOM
BCS-710	BUILDING CODE SUMMARY - FOODS LAB
FRA-001	FIRE RATED ASSEMBLIES
FRA-002	FIRE RATED ASSEMBLIES
LS-001	LIFE SAFETY PLAN
A-001	OVERALL FLOOR PLAN
A-700	ART ROOM DEMOLITION PLAN / NOTES
A-701	ART ROOM FLOOR PLAN, FINISH SCHEDULE
A-702	ART ROOM REFLECTED CEILING PLAN, DOOR SCHEDULE, DOOR ELEVATIONS, AND MILLWORK
A-703	ART ROOM INTERIOR ELEVATIONS
A-710	FOODS LAB PLAN, DOOR, FINISH, AND EQUIPMENT SCHEDULES
A-711	FOODS LAB SECTION AND DETAILS
A-712	FOODS LAB REFLECTED CEILING PLAN
S-101	STRUCTURAL PLAN - FOODS LAB EXHAUST HOOD SUPPORT
PME-700	ART ROOM PME DEMOLITION PLAN
PME-710	FOODS LAB PME DEMOLITION PLAN
P-001	PLUMBING NOTES / DETAILS / RISER DIAGRAM
P-701	ART ROOM PLUMBING PLAN
P-711	FOODS LAB SANITARY SEWER PLAN
P-712	FOODS LAB POTABLE WATER PLAN
M-001	MECHANICAL NOTES / DETAILS / SCHEDULE
M-701	ART ROOM MECHANICAL PLAN
M-702	ART ROOM MECHANICAL DETAILS / SCHEDULES
M-711	FOODS LAB MECHANICAL PLAN
M-712	FOODS LAB GAS PIPING PLAN
M-713	FOODS LAB HOOD DETAILS / SCHEDULES
M-714	FOODS LAB HOOD FIRE SUPPRESSION DETAILS
M-715	FOODS LAB HOOD DETAILS
M-716	FOODS LAB HOOD DETAILS
M-717	FOODS LAB HOOD DETAILS
M-718	FOODS LAB HOOD DETAILS
E-001	ELECTRICAL NOTES / DETAILS / SCHEDULES
E-002	ELECTRICAL PANELBOARD SCHEDULES / DEMAND CALCS / RISER DIAGRAM
E-003	OVERALL ELECTRICAL PLAN
E-701	ART ROOM POWER PLAN
E-702	ART ROOM LIGHTING PLAN
E-711	FOODS LAB POWER PLAN
E-712	FOODS LAP LIGHTING PLAN
FA-001	FIRE ALARM NOTES / DETAILS / RISER DIAGRAM
FA-701	ART ROOM FIRE ALARM PLAN
FA-711	FOODS LAB FIRE ALARM PLAN

No.	Date:	Revision:

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION GREENVILLE, N.C. REGISTERED CERTIFICATE NUMBER 418

JAMES GRAY HITE REGISTERED ARCHITECT 3754 STATE OF NORTH CAROLINA GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

Drawing no. T 1

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Building Code Summary
Interior Alterations - Art Room Alteration

Name of Project: East Carteret High School Art Room and Foods Lab Renovations
Address: 3263 Highway 70, Beaufort, NC
Proposed Use: Education
Owner or Authorized Agent: James G. Hite Phone No. (252) 757-0333 e-mail jgh@hiteassoc.com
Owned by: [X] City/County [ ] Private [ ] State
Code Enforcement Jurisdiction: [ ] City [X] County [ ] State

LEAD DESIGN PROFESSIONAL: James G. Hite, AIA

Designer	Firm	Name	License *	Telephone *	e-mail
Architectural	Hite Associates	James G. Hite, AIA	NC 3754	(252) 757-0333	jgh@hiteassoc.com
Civil	N/A				
Electrical	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Fire Alarm	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Plumbing	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Mechanical	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Sprinkler-Standpipe	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Structural	Queen Engineering	Bruce Queen, P.E.	NC 018991	(919) 420-0480	bruce@qedpa.net
Retaining Walls>5' High	NA				
Other	NA				

2018 EDITION OF NC CODE FOR:
[ ] New Construction [ ] Addition [X] Upfit

EXISTING: [ ] Prescriptive [ ] Alteration Level I [ ] Historic Property
[ ] Repair [X] Alteration Level II [ ] Change of Use
[ ] Chapter 14 [ ] Alteration Level III

CONSTRUCTED 1964 ORIGINAL USE EDUCATION
RENOVATED 2024 CURRENT USE EDUCATION PROPOSED USE EDUCATION

BUILDING DATA
Construction Type: [ ] I-A [ ] II-A [ ] III-A [ ] IV [ ] V-A
[ ] I-B [X] II-B [ ] III-B [ ] V-B
Mixed Construction: [X] No [ ] Yes Types _____
Sprinklers:
Ground Floor [X] No [ ] Yes [ ] Partial [ ] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
Equipment Platform [X] No [ ] Yes [ ] Partial [ ] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
Standpipes: [X] No [ ] Yes Class [ ] I [ ] II [ ] III [ ] Wet [ ] Dry
Fire District: [X] No [ ] Yes Flood Hazard Area: [ ] No [X] Yes
Building Height: Feet: 29' Number of Stories: 1
Mezzanine: [X] No [ ] Yes

Gross Building Area:

Floor	Existing (SQ FT)	New (SQ FT)	Sub-Total
Equipment Platform			
Third Floor			
Second Floor			
First Floor	25,957		
Total	25,957		

ALLOWABLE AREA
Primary Occupancy:
Assembly [ ] A-1 [ ] A-2 [ ] A-3 [ ] A-4 [ ] A-5
[ ] Business
[X] 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
[ ] Utility and Miscellaneous

Accessory Occupancy Classification(s): S-1, S-2, A-3
Incidental Uses (Table 509): NA
This Separation is not exempt as a Non-Separated Use (see exceptions)
Special Uses (Chapter 4 - List code Sections): NA
Special Provisions (Chapter 5 - List code Sections): NA

Mixed Occupancy: [ ] No [X] Yes Separation: Hr: Exception:

[X] Non-Separated Use (508.3)
The required type of construction of 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.

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

$$\frac{0}{0} + \frac{0}{0} + 0 \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA 4	(C) AREA FOR OPEN SPACE INCREASE 1,5	(D) ALLOWABLE AREA OR UNLIMITED 2,3
1	Education	25,957	34,000		34,000

1 Frontage increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 0 (F)
b. Total Building Perimeter = 0 (P)
c. Ratio (F/P) = 0 (F/P)
d. W= Minimum width of public way = 0 (W)
2 Unlimited area applicable under conditions of Section 507.
3 Maximum Building Area = total number of stories in the building x D (506.2)
4 The maximum area of parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
5 Frontage increase is based on the unsprinkled area value in Table 506.2.

ALLOWABLE HEIGHT

		ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	Feet	75	29	
Building Height in Stories (Table 504.4)	Stories	3	1	

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION)*	DETAIL NO. AND SHEET NO.	DESIGN NO. FOR RATED ASSEMBLY	DESIGN NO. FOR RATED PENETRATION	DESIGN NO. FOR RATED JOIST
Structural frame, including columns, girders, trusses		NA	NA	NA	NA	NA	NA
Bearing walls							
Exterior							
North	NA	NA	NA	NA	NA	NA	NA
East	NA	NA	NA	NA	NA	NA	NA
West	NA	NA	NA	NA	NA	NA	NA
South	NA	NA	NA	NA	NA	NA	NA
Interior	NA	NA	NA	NA	NA	NA	NA
Nonbearing walls and partitions Exterior							
North	NA	NA	NA	NA	NA	NA	NA
East	NA	NA	NA	NA	NA	NA	NA
West	NA	NA	NA	NA	NA	NA	NA
South	NA	NA	NA	NA	NA	NA	NA
Interior	NA	NA	NA	NA	NA	NA	NA
Floor construction including support beams and joist		NA	NA	NA	NA	NA	NA
Above Corridor		NA	NA	NA	NA	NA	NA
Columns Supporting Floors							
Roof construction including support beams and joist		NA	NA	NA	NA	NA	NA
Roof Ceiling Assembly		NA	NA	NA	NA	NA	NA
Columns Supporting Roof		NA	NA	NA	NA	NA	NA
Shafts - Exit		NA	NA	NA	NA	NA	NA
Shafts - Other		NA	NA	NA	NA	NA	NA
Corridor Separation		1	1	NA	U419	NA	NA
Occupancy Separation		NA	NA	NA	NA	NA	NA
Party/Fire Wall Separation		NA	NA	NA	NA	NA	NA
Smoke Barrier Separation		NA	NA	NA	NA	NA	NA
Smoke Partition		NA	NA	NA	NA	NA	NA
Tenant Separation		NA	NA	NA	NA	NA	NA
Incidental Use Separation		NA	NA	NA	NA	NA	NA

* Indicate section number permitting reduction

PERCENTAGE OF WALL AREA CALCULATIONS

FIRE SEPARATION DISTANCE FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA	ACTUAL SHOWN ON PLANS
NA			

LIFE SAFETY SYSTEM REQUIREMENTS
Emergency Lighting: [ ] No [X] Yes
Exit Signs: [ ] No [X] Yes
Fire Alarm: [ ] No [X] Yes
Smoke Detection Systems: [ ] No [X] Yes
Carbon Monoxide Detection: [ ] No [X] Yes

Life Safety Plan Sheet #: LS-001
[X] 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)
[X] Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)
[X] Occupant loads for each area
[X] Exit access travel distances (1017)
[ ] Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
[ ] Dead end lengths (1020.4)
[X] Clear exit widths for each exit door
[X] Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
[X] 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
[X] Location of doors with panic hardware (1010.1.10)
[ ] Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
[ ] Location of doors with electromagnetic egress locks (1010.1.9.9)
[X] Location of doors equipped with hold-open devices
[ ] Location of emergency escape windows (1030)
[X] The square footage of each fire area (202)
[ ] The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
[ ] Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

LOT OR PARKING AREA	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 PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL NO. OF PARKING SPACES REQUIRED	TOTAL NO. OF PARKING SPACES PROVIDED	NO. OF ACCESSIBLE SPACES REQUIRED / PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL NO. ACCESSIBLE PROVIDED
TOTAL						

PLUMBING FIXTURE REQUIREMENTS

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
	NEW								
	EXISTING								
	REQ'D								
	NEW								
	EXISTING								
	REQ'D								
	NEW								
	EXISTING								
	REQ'D								

SPECIAL APPROVALS
Special approval: (Local Jurisdiction, Department of Insurance, SBCCI, ICC, etc., describe below)
None

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:
[X] 3 [ ] 4 [ ] 5
Method of Compliance:
[ ] Prescriptive (Energy Code)
[X] Performance (Energy Code)
[ ] Prescriptive (ASHRAE 90.1)
[ ] Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly N/A
U-Value of total assembly N/A
R-Value of insulation N/A
Skylights in each assembly NONE
U-Value of skylight N/A
total square footage of skylights in each assembly N/A
Exterior Walls (each assembly)
Description of assembly N/A
U-Value of total assembly N/A
R-Value of insulation N/A
Openings (windows or doors with glazing) Openings (windows)
U-Value of total assembly N/A
solar heat gain coefficient
projection factor
Door R-Values N/A
Exterior Walls (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Openings (windows or doors with glazing)
U-Value of total assembly
shading Coefficient
projection factor
Door R-Values
Walls below grade -
Description of assembly - Block, foam filled cells, 7.5R C.I.
U-Value of total assembly
R-Value of insulation
Floor over unconditioned space (each assembly) - NOT USED
Description of assembly - 8" Block, foam filled cells, 2" c.i.
U-Value of total assembly - 0.11
R-Value of insulation - 7.5R
Floor slab on grade
Description of assembly - 4" thick concrete slab
U-Value of total assembly - 0.21
R-Value of insulation - N/A
Horizontal/vertical requirement
slab heated - NO

No.	Date:	Revision

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JAMES GRAY HITE REGISTERED ARCHITECT 3754 GREENVILLE, N.C.

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415
Date: 10 July 2024
Drawing no. BCS 700

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Building Code Summary
Interior Alterations - Foods Lab Alteration

Name of Project: East Carteret High School Art Room and Foods Lab Renovations
Address: 3263 Highway 70, Beaufort, NC
Proposed Use: Education
Owner or Authorized Agent: James G. Hite Phone No. (252) 757-0333 e-mail jgh@hiteassoc.com
Owned by: [X] City/County [ ] Private [ ] State
Code Enforcement Jurisdiction: [ ] City [X] County [ ] State

LEAD DESIGN PROFESSIONAL: James G. Hite, AIA

Designer	Firm	Name	License *	Telephone *	e-mail
Architectural	Hite Associates	James G. Hite, AIA	NC 3754	(252) 757-0333	jgh@hiteassoc.com
Civil	N/A				
Electrical	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Fire Alarm	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Plumbing	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
Mechanical	Engineering Source	Wilson Pou, P.E.	NC 021993	(252) 439-0338	Wilson@engrsource.com
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Retaining Walls>5' High	NA				
Other	NA				

2018 EDITION OF NC CODE FOR:
[ ] New Construction [ ] Addition [X] Upfit

EXISTING: [ ] Prescriptive [ ] Alteration Level I [ ] Historic Property
[ ] Repair [X] Alteration Level II [ ] Change of Use
[ ] Chapter 14 [ ] Alteration Level III

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RENOVATED 2024 CURRENT USE EDUCATION PROPOSED USE EDUCATION

BUILDING DATA
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[ ] I-B [X] II-B [ ] III-B [ ] V-B
Mixed Construction: [X] No [ ] Yes Types _____

Sprinklers:
Ground Floor [X] No [ ] Yes [ ] Partial [ ] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
Equipment Platform [X] No [ ] Yes [ ] Partial [ ] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
Standpipes: [X] No [ ] Yes Class [ ] I [ ] II [ ] III [ ] Wet [ ] Dry
Fire District: [X] No [ ] Yes Flood Hazard Area: [ ] No [X] Yes
Building Height: Feet: 29' Number of Stories: 1
Mezzanine: [X] No [ ] Yes

Gross Building Area:

Floor	Existing (SQ FT)	New (SQ FT)	Sub-Total
Equipment Platform			
Third Floor			
Second Floor			
First Floor	14,397		
Total	14,397		

ALLOWABLE AREA
Primary Occupancy:
Assembly [ ] A-1 [ ] A-2 [ ] A-3 [ ] A-4 [ ] A-5
[ ] Business
[X] 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
[ ] Utility and Miscellaneous

Accessory Occupancy Classification(s): S-1, S-2, A-3
Incidental Uses (Table 509): NA
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Special Uses (Chapter 4 - List code Sections): NA
Special Provisions (Chapter 5 - List code Sections): NA

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[X] Non-Separated Use (508.3)
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$$\frac{0}{0} + \frac{0}{0} + 0 \leq 1.00$$

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b. Total Building Perimeter * 0 (P)
c. Ratio (F/P) * 0 (F/P)
d. W* Minimum width of public way * 0 (W)
2 Unlimited area applicable under conditions of Section 507.
3 Maximum Building Area * total number of stories in the building x D (506.2)
4 The maximum area of parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
5 Frontage increase is based on the unsprinkled area value in Table 506.2.

ALLOWABLE HEIGHT

		ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	Feet	75	29	
Building Height in Stories (Table 504.4)	Stories	3	1	

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ * REDUCTION)	DETAIL NO. AND SHEET NO.	DESIGN NO. FOR RATED ASSEMBLY	DESIGN NO. FOR RATED PENETRATION	DESIGN NO. FOR RATED JOIST
Structural frame, including columns, girders, trusses		NA	NA	NA	NA	NA	NA
Bearing walls							
Exterior							
North	NA	NA	NA	NA	NA	NA	NA
East	NA	NA	NA	NA	NA	NA	NA
West	NA	NA	NA	NA	NA	NA	NA
South	NA	NA	NA	NA	NA	NA	NA
Interior	NA	NA	NA	NA	NA	NA	NA
Nonbearing walls and partitions Exterior							
North	NA	NA	NA	NA	NA	NA	NA
East	NA	NA	NA	NA	NA	NA	NA
West	NA	NA	NA	NA	NA	NA	NA
South	NA	NA	NA	NA	NA	NA	NA
Interior	NA	NA	NA	NA	NA	NA	NA
Floor construction including support beams and joist		NA	NA	NA	NA	NA	NA
Above Corridor		NA	NA	NA	NA	NA	NA
Columns Supporting Floors							
Roof construction including support beams and joist		NA	NA	NA	NA	NA	NA
Roof Ceiling Assembly		NA	NA	NA	NA	NA	NA
Columns Supporting Roof		NA	NA	NA	NA	NA	NA
Shafts - Exit		NA	NA	NA	NA	NA	NA
Shafts - Other		NA	NA	NA	NA	NA	NA
Corridor Separation		1	1	NA	U419	NA	NA
Occupancy Separation		NA	NA	NA	NA	NA	NA
Party/Fire Wall Separation		NA	NA	NA	NA	NA	NA
Smoke Barrier Separation		NA	NA	NA	NA	NA	NA
Smoke Partition		NA	NA	NA	NA	NA	NA
Tenant Separation		NA	NA	NA	NA	NA	NA
Incidental Use Separation		NA	NA	NA	NA	NA	NA

* Indicate section number permitting reduction

PERCENTAGE OF WALL AREA CALCULATIONS

FIRE SEPARATION DISTANCE FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA	ACTUAL SHOWN ON PLANS
NA			

LIFE SAFETY SYSTEM REQUIREMENTS
Emergency Lighting: [ ] No [X] Yes
Exit Signs: [ ] No [X] Yes
Fire Alarm: [ ] No [X] Yes
Smoke Detection Systems: [ ] No [X] Yes
Carbon Monoxide Detection: [ ] No [X] Yes

Life Safety Plan Sheet #: LS-001
[X] 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)
[X] Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)
[X] Occupant loads for each area
[X] Exit access travel distances (1017)
[ ] Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
[ ] Dead end lengths (1020.4)
[X] Clear exit widths for each exit door
[X] Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
[X] 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
[X] Location of doors with panic hardware (1010.1.10)
[ ] Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
[ ] Location of doors with electromagnetic egress locks (1010.1.9.9)
[X] Location of doors equipped with hold-open devices
[ ] Location of emergency escape windows (1030)
[X] The square footage of each fire area (202)
[ ] The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
[ ] Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

LOT OR PARKING AREA	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 PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL NO. OF PARKING SPACES REQUIRED	TOTAL NO. OF PARKING SPACES PROVIDED	NO. OF ACCESSIBLE SPACES REQUIRED / PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL NO. ACCESSIBLE PROVIDED
TOTAL						

PLUMBING FIXTURE REQUIREMENTS

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
	NEW								
	EXISTING								
	REQ'D								
	NEW								
	EXISTING								
	REQ'D								
	NEW								
	EXISTING								
	REQ'D								

SPECIAL APPROVALS
Special approval: (Local Jurisdiction, Department of Insurance, SBCCI, ICC, etc., describe below)

None

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:
[X] 3 [ ] 4 [ ] 5

Method of Compliance:
[X] Prescriptive (Energy Code)
[ ] Performance (Energy Code)
[ ] Prescriptive (ASHRAE 90.1)
[ ] Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly: 3" EIFS / SHEATHING / METAL STUDS / 3" SPRAY POLYURETHANE / GYPBOARD
U-Value of total assembly: 0.0308
R-Value of insulation: 20.4 + 10.8 ci
Skylights in each assembly: NONE
U-Value of skylight: N/A
total square footage of skylights in each assembly: N/A

Exterior Walls (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A
Openings (windows or doors with glazing): Openings (windows)
U-Value of total assembly: N/A
solar heat gain coefficient
projection factor
Door R-Values: N/A

Exterior Walls (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Openings (windows or doors with glazing)
U-Value of total assembly
shading Coefficient
projection factor
Door R-Values

Walls below grade -
Description of assembly - Block, foam filled cells, 7.5R C.I.
U-Value of total assembly
R-Value of insulation

Floor over unconditioned space (each assembly) - NOT USED
Description of assembly - 8" Block, foam filled cells, 2" c.i.
U-Value of total assembly - 0.11
R-Value of insulation - 7.5R

Floor slab on grade
Description of assembly + 4" thick concrete slab
U-Value of total assembly + 0.21
R-Value of insulation - N/A
Horizontal/vertical requirement
slab heated - NO

No.	Date:	Revision

Hite associates
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HITE ASSOCIATES, P.C. ARCHITECTURE PLANNING CORPORATION REGISTERED CERTIFICATE NUMBER 418 GREENVILLE, NORTH CAROLINA

JAMES GRAY HITE REGISTERED ARCHITECT 3754 GREENVILLE, NORTH CAROLINA

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415
Date: 10 July 2024
Drawing no. BCS 710

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U.L. Design No. U419

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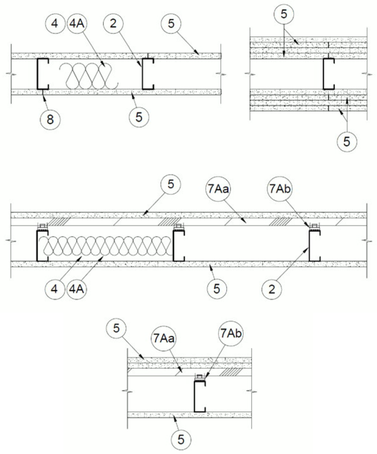
Design No. **U419**

June 14, 2024

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J)
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
CEMCO, LLC — Viper25™ Track

CRACO MFG INC — SmartTrack25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1B. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1D. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1F. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS — The Edge

1G. **Framing Members* — Floor and Ceiling Runner —** For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

1K. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1M. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Wall Track

1N. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Track

1O. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper X Track

1P. **Framing Members* — Floor and Ceiling Runner —** (Not Shown — Alternate to Item 1) — For use with Item 2R, channel shaped runners pre-equipped with proprietary attachment clips. Min. 3-5/8 in. wide. Legs of top runners minimum 3-1/4 in. wide. Legs of bottom runners minimum 1-1/2 in. wide. Runners attached to floor and ceiling with fasteners 24 in. OC max.

HYPERFRAME INC - Hyperstrack

1Q. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2S , proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

JJC INTERNATIONAL DISTRIBUTORS — Non-structural Tracks 3-5/8" and 6".

1R. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2T, proprietary channel shaped runners ,min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max

IRONLINE METALS LLC — Bantam Track.

2. **Steel Studs —** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Steel Studs —** (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J or Type ULIX) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. **Framing Members* - Steel Studs —** (As an alternate to Item 2, For use with Items 5C, 5I or Type ULIX) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.
CEMCO, LLC — Viper25™

CRACO MFG INC — SmartStud25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

2C. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CEMCO, LLC — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2D. **Framing Members* — Steel Studs —** In lieu of Item 2 — Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2E. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or Type ULIX only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.
SUPER STUD BUILDING PRODUCTS — The Edge

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2I. **Framing Members* — Steel Studs —**

2J. **Framing Members* — Metal Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2L. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2M. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N. **Framing Members*— Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2O. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud

2P. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Stud

2Q. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CEMCO, LLC — Viper X

2R. **Framing Members* — Steel Studs —** (Not Shown — Alternate to Item 2, For use with Item 1P) — Channel shaped steel studs with attachment clips at top and bottom, min 3-5/8 in. depth, spaced a max of 24 in. OC. Studs clipped into floor and ceiling runners (Item 1P). Max 2-3/8 in. extension reveal from top of stud to inside of ceiling runner.

HYPERFRAME INC— Hyperstud

2S. **Framing Members* — Steel Studs —** No! Shown — In lieu of Item 2 — For use with Item 1Q, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

JJC INTERNATIONAL DISTRIBUTORS — Non-structural Studs 3-5/8" and 6".

2T. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1R, proprietary channel shaped steelstuds, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

IRONLINE METALS LLC — Bantam Stud.

3. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets* —** (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4A. **Batts and Blankets* —** (Optional – as an alternate to item 4) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** (Optional – as an alternate for items 4 or 4A, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

4C. **Foamed Plastic* —** (As an alternate for items 4, 4A or 4B, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

4D. **Foamed Plastic* —** (As an alternate for items 4, 4A or 4B, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for up to 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

BASF CORP - Enertite® NM, Enertite® Q, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Spraytite® Comfort XL, Walltite® XL, Walltite® MAX, Walltite® LWP, Walltite® Plus and Enertite® Max

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing.

Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Type C and 5/8 in. thick Type SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members***, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S A DE C V — Type SHX.

5B. **Gypsum Board* —** (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. **Gypsum Board* —** (For Use With Item 2B) — Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.
CGC INC — Type SCX, ULIX.

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — Type SCX, SGX, ULIX.

USG BORAL DRYWALL SFZ LLC — Type SCX

USG MEXICO S A DE C V — Type SCX

5D. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
CGC INC — Type USGX

UNITED STATES GYPSUM CO — Type USGX

USG BORAL DRYWALL SFZ LLC — Type USGX

USG MEXICO S A DE C V — Type USGX

5E. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX, ULIX

USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR;, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX or 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Types C and 5/8 in. thick SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C , FRX-G, IP-AR, IP-X2, IPC-AR, ULIX; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

No.	Date:	Revision

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

HITE ASSOCIATES, P.C. ARCHITECTURE / PLANNING CORPORATION GREENVILLE, NORTH CAROLINA
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REGISTERED ARCHITECT JAMES GRAY HITE
COMMONWEALTH OF VIRGINIA 4418
REGISTERED ARCHITECT JAMES GRAY HITE
STATE OF NORTH CAROLINA 4418
REGISTERED ARCHITECT JAMES GRAY HITE
STATE OF OREGON GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

Drawing no.
FRA 001

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5I. **Gypsum Board* —** (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
CGC INC — Type ULIX, ULX

UNITED STATES GYPSUM CO — Type ULIX, ULX

USG MEXICO S A DE C V — Type ULX

5J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

5K. **Gypsum Board* —** (As an alternate to Item 5 when Foam Plastic insulation (Items 4C or 4D) is used) **—** Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

6. **Fasteners —** (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC in the field and perimeter, when panels are applied horizontally or vertically.**Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer.**Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:**

First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. **Framing Members* —** (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax

7C. **Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

7D. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type AZ37 or AZ37R

7E. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Eb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

7F. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. Not for use with Item 5A and 5E.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

7G. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ga) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

8. **Joint Tape and Compound —** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. **Siding, Brick or Stucco —** (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. **Caulking and Sealants* —** (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.
UNITED STATES GYPSUM CO — Type AS

11. **Lead Batten Strips —** (Not Shown, For Use With Item 5B) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.

11A. **Lead Batten Strips —** (Not Shown, For Use With Item 5H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

12. **Lead Discs or Tabs —** (Not Shown, For Use With Item 5B) — Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

12A. **Lead Discs —** (Not Shown, for use with Item 5H) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

13. **Lead Batten Strips —** (Not Shown, For Use With Item 5E) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.

14. **Lead Tabs —** (Not Shown, For Use With Item 5E) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

15. **Barrier Mesh —** (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2024-06-14

No.	Date:	Revision

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HITE ASSOCIATES, P.C. ARCHITECTURE CORPORATION REGISTERED CERTIFICATE NUMBER 418 STATE OF NORTH CAROLINA GREENVILLE

JAMES GRAY HITE REGISTERED ARCHITECT 3763 GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70 Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415
Date: 10 July 2024
Drawing no. FRA 002

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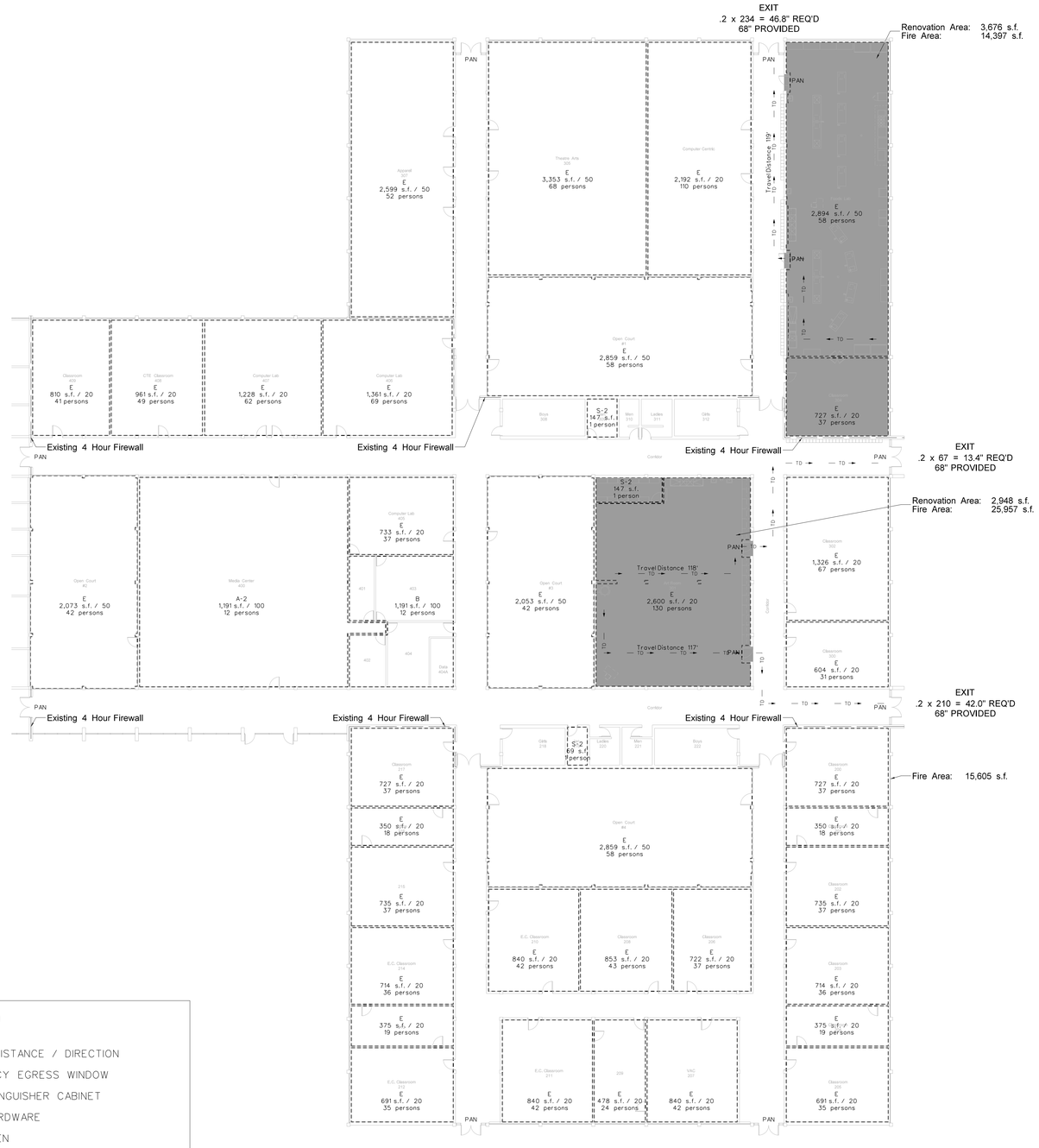

LEGEND

TD	TRAVEL DISTANCE / DIRECTION
EEW	EMERGENCY EGRESS WINDOW
FEC	FIRE EXTINGUISHER CABINET
PAN	PANIC HARDWARE
HO	HOLD OPEN
----	LIMIT OF AREA CALCULATIONS

SEE SHEET T-1 FOR ADDITIONAL ABBREVIATIONS

001.1 LIFE SAFETY PLAN

SCALE: 1/16" = 1'-0"

No.	Date:	Revision

Hite associates
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2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

HITE ASSOCIATES, P.C. ARCHITECTURE CORPORATION GREENVILLE, NORTH CAROLINA CERTIFICATE NUMBER 4.18 EXPIRES 12/31/5/19

JAMES GRAY HITE REGISTERED ARCHITECT GREENVILLE, N.C.

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy 70 Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

Drawing no. LS 001

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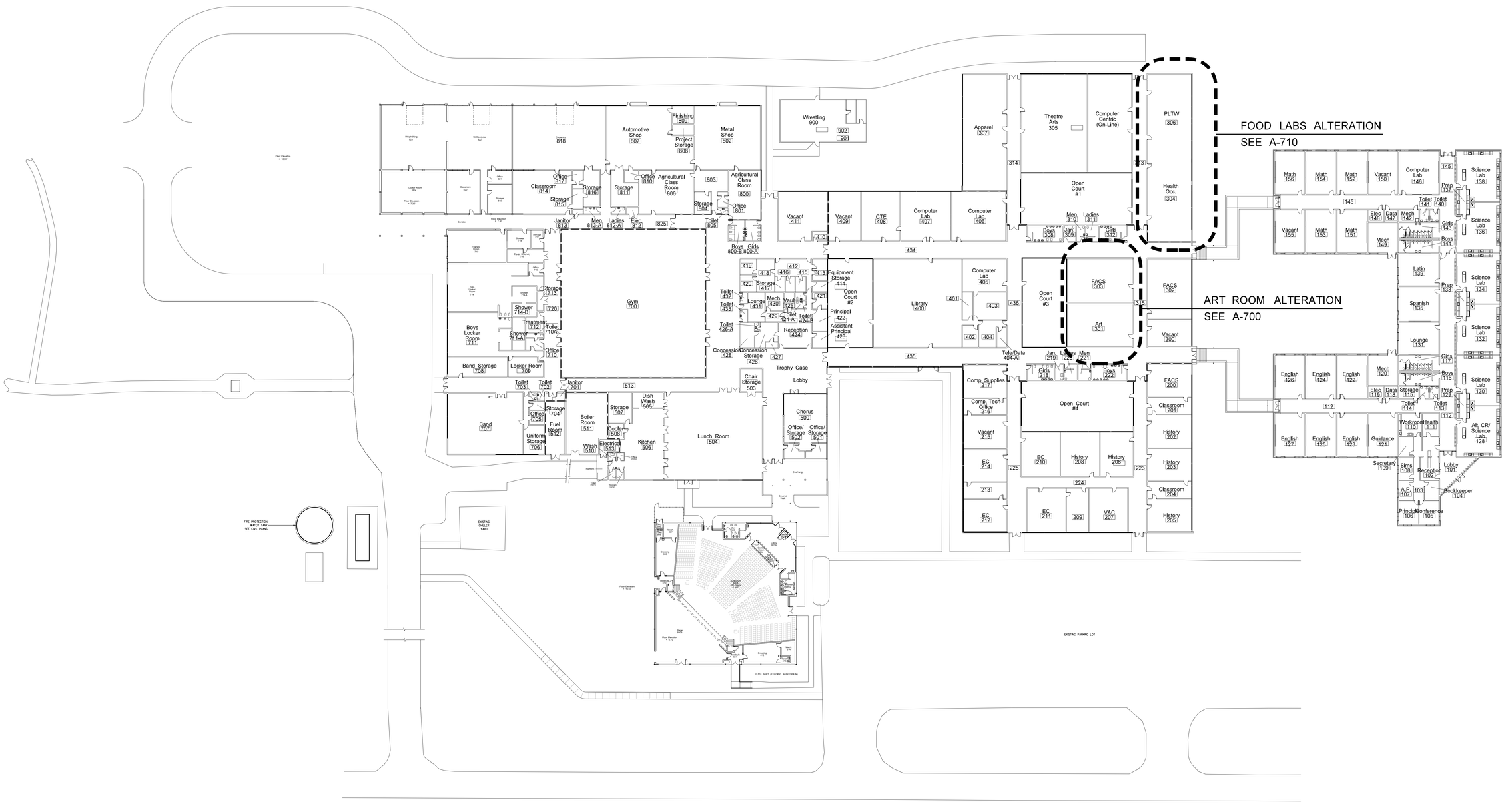

NORTH

001.1 OVERALL FLOOR PLAN

SCALE: 1" = 30'

30 0 30 60 90 FEET

GRAPHIC SCALE

No.	Date:	Revision

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HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION CERTIFICATE NUMBER 4418 ESTABLISHED 1919 GREENVILLE

JAMES GRAY HITE REGISTERED ARCHITECT GREENVILLE

Art Room and Foods Lab Alterations to

East Carteret High School

3263 Hwy 70 Beaufort, NC 28516

Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

Drawing no. A 001

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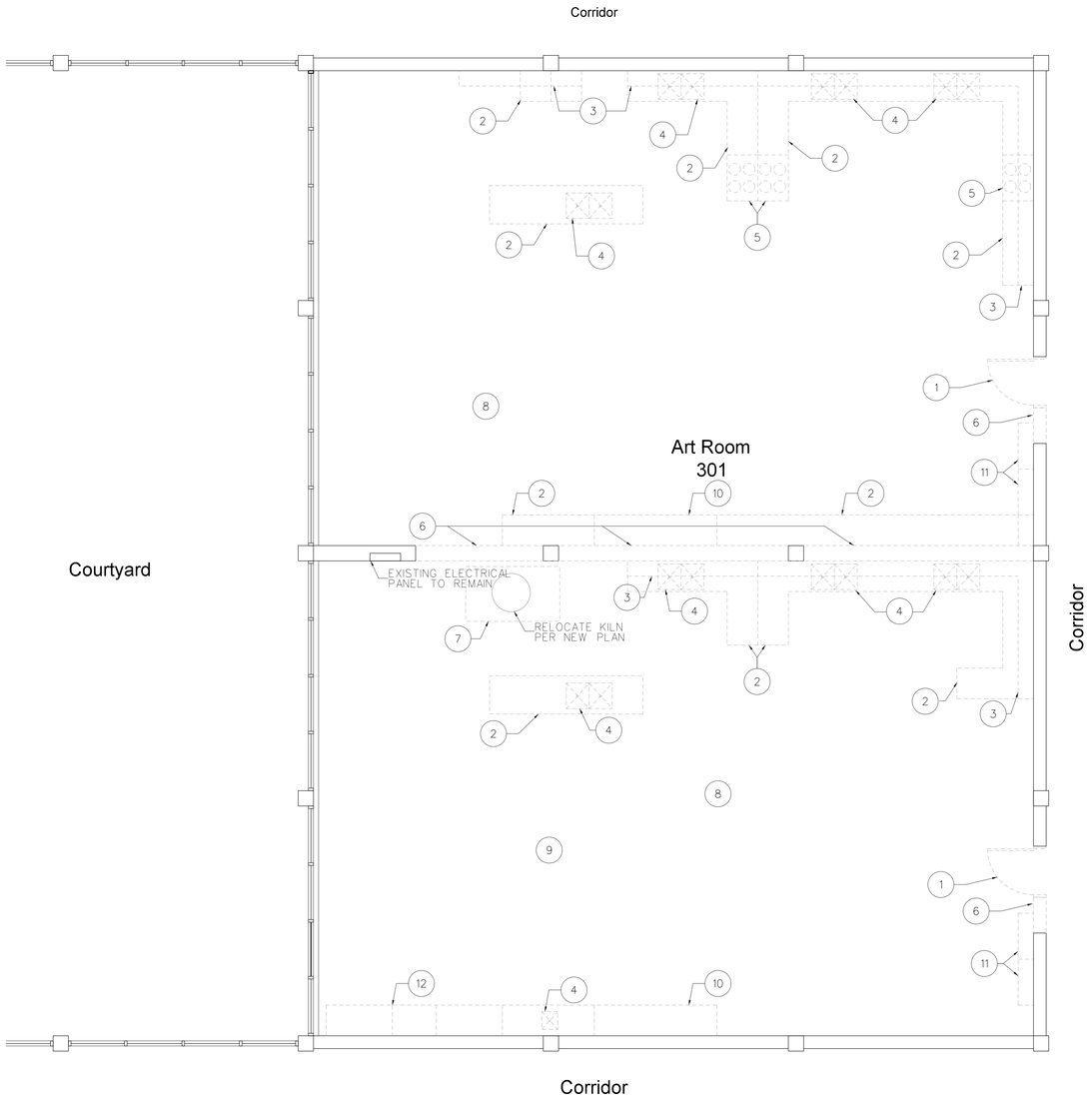
KEY NOTES FOR DEMOLITION PLAN

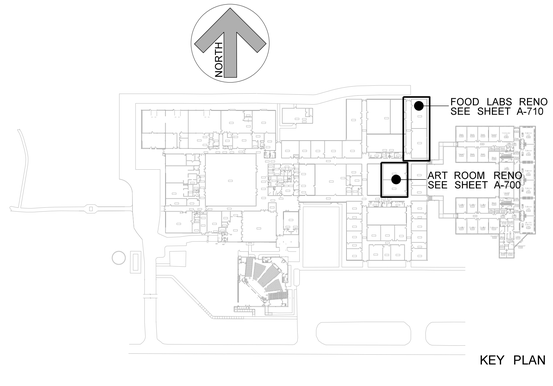
1. REMOVE EXISTING DOOR AND FRAME.
2. REMOVE LOWER CABINETS AND COUNTERTOPS.
3. REMOVE UPPER CABINETS.
4. REMOVE SINKS AND LEAD PIPES TO BELOW FLOOR, CAP AND PATCH.
5. REMOVE STOVES AND POWER SERVICES.
6. REMOVE PORTION OF EXISTING WALL AS INDICATED TO STRUCTURAL BEAM OR CONCRETE DECK ABOVE.
7. REMOVE KILN HOOD AND EXHAUST DUCT AND FAN.
8. REMOVE ALL EXISTING FLOOR TILE, INCLUDING ACM TILE AND ACM ADHESIVE FROM CONCRETE FLOOR.
9. REMOVE ALL EXISTING CEILING TILE AND GRID.
10. REMOVE MARKERBOARDS AND CABINETS. REMOVE ACM MASTIC FROM BEHIND EXISTING BOARDS
11. REMOVE BOOKCASES
12. REMOVE STORAGE CABINETS

GENERAL DEMOLITION NOTES:

1. GC TO CONSTRUCT TEMPORARY INSULATED SOLID DUSTPROOF PARTITIONS WHERE REQUIRED TO SEPARATE DEMO AREAS FOR NOISE CONTROL AND DIRT/DUST CONTAINMENT. PARTITIONS SHALL BE PROVIDED WITH DUSTPROOF DOORS AND SECURITY LOCKS IF REQUIRED TO MAINTAIN SAFETY, EGRESS AND SECURITY.
2. SEE ENLARGED DEMOLITION PLANS, ROOF DEMOLITION AND EXTERIOR ELEVATIONS, PME DRAWINGS, ETC FOR ADDITIONAL DEMOLITION SCOPE OF WORK REQUIREMENTS.
3. SEE SPECIFICATIONS SECTION 02070 FOR MORE INFORMATION ON SELECTIVE DEMOLITION AND CONSTRUCTION ACTIVITIES.
4. GENERAL CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND OR REGULATORY AGENCIES, CODES, AND REGULATIONS FOR NEW CONSTRUCTION AND DEMOLITION.
5. PRIOR TO REMOVAL OR CUTTING OF OPENINGS THROUGH STRUCTURAL WALLS OR SLABS, CONTRACTOR SHALL PROVIDE ADEQUATE SHORING FOR THE ROOF AND ANY OTHER STRUCTURAL LOADS. SUPPORTS WILL NOT BE REMOVED UNTIL NEW STRUCTURAL SYSTEMS ARE IN PLACE.
6. CARE SHALL BE TAKEN DURING CONSTRUCTION NOT TO DAMAGE ANY EXISTING STRUCTURAL MEMBERS OR THEIR SUPPORTS, THE ARCHITECT AND OWNER REPRESENTATIVE WILL BE NOTIFIED IMMEDIATELY IF ANY DAMAGE SHOULD OCCUR.
7. GC IS RESPONSIBLE FOR NOTIFYING OWNER REPRESENTATIVE OF ANY BUILDING UTILITY DISTURBANCES, AND PROVIDE ADEQUATE INTERIM UTILITIES.
8. REMOVE ALL EXISTING MARKERBOARDS, BULLETIN BOARDS, DISPLAY BOARDS AND MAP RAILS AND ACM MASTIC BEHIND THEM. REFINISH WALLS TO MATCH EXISTING ADJACENT SURFACES. PROVIDE NEW MARKER AND BULLETIN BOARDS AS SCHEDULED OR SHOWN ON DRAWINGS.
9. CONTRACTOR SHALL TURN OVER ALL SALVABLE ITEMS TO OWNER AS DIRECTED.
10. CONTRACTOR SHALL COMPLETE ANY AND ALL DEMOLITION AND PATCHING AND REPAIRS REQUIRED FOR A COMPLETE JOB, WHETHER INDICATED SPECIFICALLY BY KEY NOTES OR NOT. DEMOLITION AND REMOVAL REQUIRED INCLUDES ANY CONSTRUCTION SHOWN TO REPLACE EXISTING AND SHOWN ON OTHER DRAWINGS.
11. DEMOLISH ANY EXISTING UNUSED PLUMBING VENTS. PATCH AND REPAIR ROOF AS REQUIRED. COORDINATE WITH PLUMBING CONTRACTOR.
12. IDENTIFICATION AND REMOVAL OF ASBESTOS CONTAINING MATERIAL TO BE COMPLETED BY CONTRACTOR PRIOR TO ANY DEMOLITION OR CONSTRUCTION. CONTRACTOR TO REVIEW OWNER AHERA DOCUMENTS TO VERIFY SCOPE PRIOR TO COMMERCIAL WORK.
13. EXISTING EXHAUST FANS TO BE ABANDONED ARE TO BE REMOVED. RESULTING ROOF PENETRATIONS ARE TO BE PATCHED AND REPAIRED TO MATCH EXISTING AS REQUIRED. SEE MECHANICAL DRAWINGS. FIELD VERIFY EXISTING ROOF CONSTRUCTION PRIOR TO BID.



700.1 DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



KEY PLAN

DRAWING LEGEND

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO BE REMOVED

NOTE: ALL EXISTING DOORS, CASEWORK, AND OTHER SALVAGEABLE ITEMS TO BE REMOVED SHALL BE REMOVED WITH CARE AND TURNED OVER TO THE OWNER.

No.	Date:	Revision

Hite associates
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JAMES GRAY HITE REGISTERED ARCHITECT 3754 STATE OF NORTH CAROLINA
HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION ESTABLISHED 1978 CERTIFICATE NUMBER 418 GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415
Date: 10 July 2024
Drawing no. A 700

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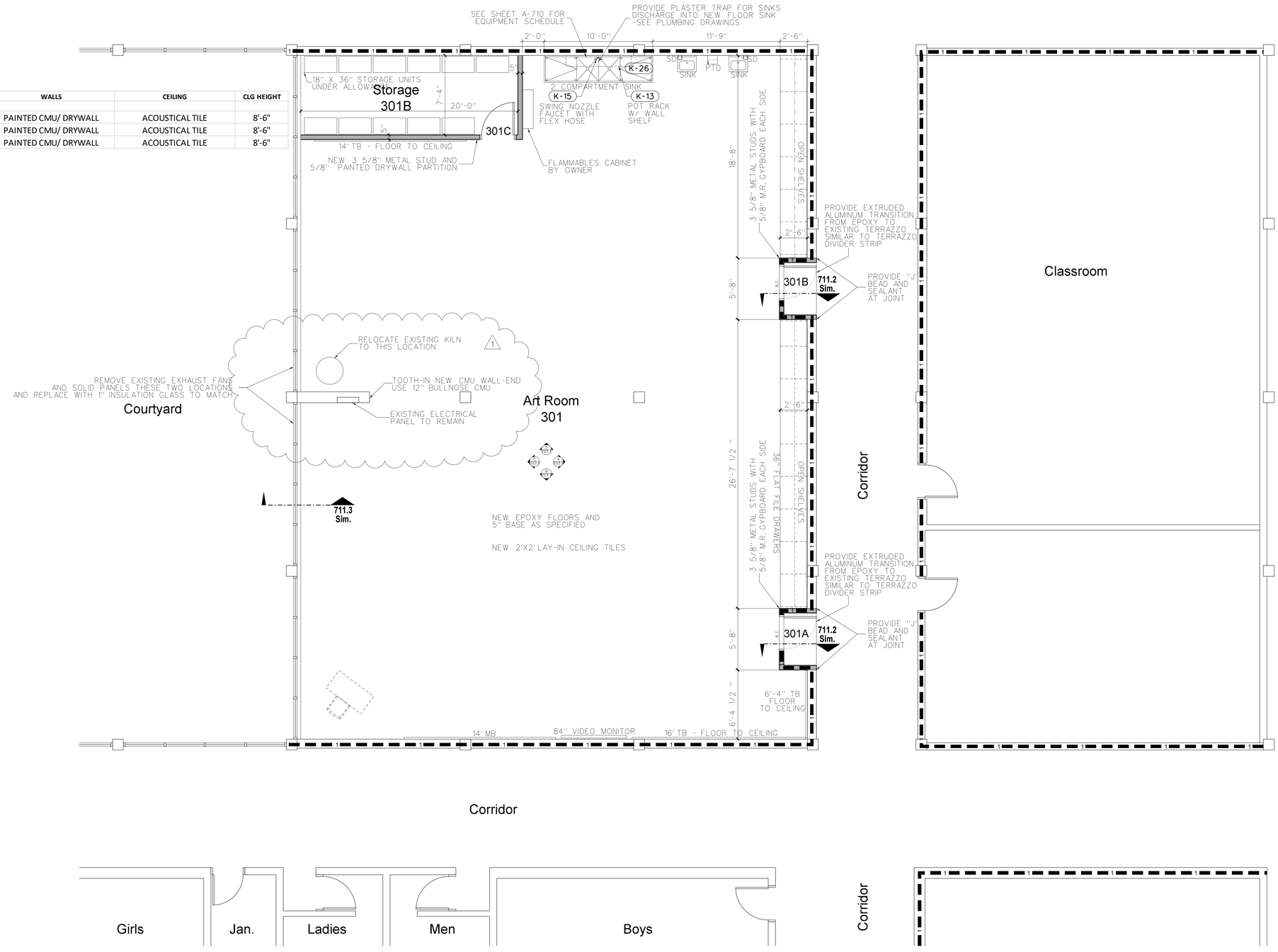
FINISH SCHEDULE

MARK		AREA	FLOOR	BASE	WALLS	CEILING	CLG HEIGHT
301		ART ROOM	EPOXY	5" EPOXY	PAINTED CMU/ DRYWALL	ACOUSTICAL TILE	8'-6"
301	B	STORAGE	EPOXY	5" EPOXY	PAINTED CMU/ DRYWALL	ACOUSTICAL TILE	8'-6"
303		FOOD LABS	EPOXY	5" EPOXY	PAINTED CMU/ DRYWALL	ACOUSTICAL TILE	8'-6"



701.1 ENLARGED ART ROOM PLAN
SCALE: 1/4" = 1'-0"

DRAWING LEGEND

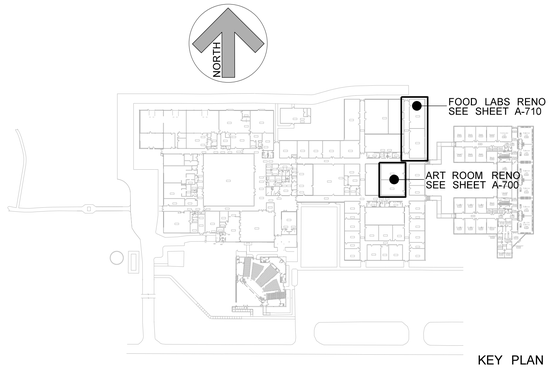
- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW GYPBOARD / METAL STUD CONSTRUCTION
- NEW CMU CONSTRUCTION
- NEW MASONRY CONSTRUCTION

NOTE: ALL EXISTING DOORS, CASEWORK, AND OTHER SALVAGEABLE ITEMS TO BE REMOVED SHALL BE REMOVED WITH CARE AND TURNED OVER TO THE OWNER.

ABBREVIATIONS

CB	CHALKBOARD
MB	MARKERBOARD
VDB	VISUAL DISPLAY MONITOR
MVDM	MOBILE VISUAL DISPLAY MONITOR
TB	TACK BOARD
BK	BOOKCASE
CU	CUBBIES
IAWB	INTERACTIVE WHITE BOARD
VM	FLAT SCREEN T.V.
MT	METAL THRESHOLD W/ 1/2" MAX. LIP
RT	RUBBER TRANSITION W/ 1/2" MAX. LIP
FEC	FIRE EXTINGUISHER CABINET
C.J.	CONTROL JOINT
E.J.	EXPANSION JOINT
TD	TRAVEL DISTANCE

SEE SHEET T-1 FOR ADDITIONAL ABBREVIATIONS



KEY PLAN

No.	Date:	Revision
1	9/16/24	Revised per Addendum 1

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HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION CERTIFICATE NUMBER 418 STATE OF NORTH CAROLINA GREENVILLE

JAMES GRAY HITE REGISTERED ARCHITECT 3754 STATE OF NORTH CAROLINA GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

Drawing no. A 701

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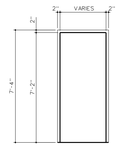
DOOR SCHEDULE

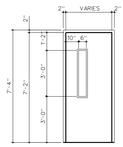
MARK		SIZE THK	SIZE WID	SIZE HT	LOCATION	TYPE	DESCRIPTION	FRM WID	FIRE RATING	ELECTRONIC ACCESS CONTROL LOCKSET	ELECTRONIC ACCESS CONTROL EXIT DEVICE	ELECTRIC STRIKE WITH PB	EXIT DEVICE	CLOSER	CLOSER WITH BACKSTOP	AUTO DOORMS HINGES (4PT)	KICK PLATES (SET OF TWO)	WALL STOP	FLOOR STOP	OVERHEAD STOP	HOOK STOP	PUSH PULL LATCH (IF FITTED)	DEADBOLT WITH THUMBTURN	FLUSH BOLTS	ASTRAGAL AND COORDINATOR	PASSAGE SET	PRIVACY LOCKSET WITH INDICATOR	ENTRY OR OFFICE LOCKSET	CLASSROOM LOCKSET	STOREROOM LOCKSET	SMOKE SEAL	SOUND SEAL	MAGNETIC HOLD OPEN	KEYED MULLION	SURF MTD VRD LESS BOTTOM ROD	PROVIDE RAINGUARD SWEEP ON DOOR BOTTOM
301A		1.75	36	86	ART TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.				1	1			1																		
301B		1.75	36	86	ART TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.				1	1			1																		
301C		1.75	36	86	ART TO STORAGE	WD-1	WOOD	5.75									1									1									
303A		1.75	36	86	FOOD LABS TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.				1	1			1																		
303B		1.75	36	86	FOOD LABS TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.				1	1			1																		
303C	PAIR	1.75	36	86	FOOD LABS TO CLASSROOM		AS SPECIFIED																												

NOTES AND GENERAL AND SPECIAL HARDWARE REQUIRED	
1	ALL DOORS TO RECEIVE HINGES AS SPECIFIED
2	ALL DOORS TO RECEIVE WALL OR OVERHEAD STOPS TO SUIT CONDITION OF USE. DOORS WITH MAGNETIC HOLD OPENS TO RECEIVE FLOOR STOPS.
3	PROVIDE CLOSERS WITH BACKSTOPS EXTERIOR DOORS AND TO SUIT CONDITION OF USE
4	ALL STEEL FRAMES TO BE PROVIDED WITH SILENCERS
5	EXTERIOR DOORS TO BE PROVIDED WITH WEATHERSTRIPPING AND THRESHOLDS
6	EXIT DEVICES TO BE PROVIDED WITH CYLINDERS
7	AT PAIRS OF DOORS, PULL SIDE, PROVIDE PULL OR LEVER RIGHT SIDE ONLY
8	ALUMINUM DOORS - SEE SPECIFICATIONS FOR HARDWARE NOT INDICATED ABOVE
9	PROVIDE CYLINDERS FOR KEYED MULLIONS SUPPLIED BY ALUMINUM DOOR SUPPLIER
10	PROVIDE SOLID WOOD BLOCKING FOR DOOR STOPS AND HOLD OPEN DEVICES
11	EXIT DEVICES AT EXTERIOR DOORS TO BE NL WITH PULL
12	EXIT DEVICES AT INTERIOR DOORS TO BE CLASSROOM FUNCTION WITH LEVER
13	PROVIDE 4" WIDE STEEL JAMBS FOR DOORS ABUTTING STEEL COLUMNS AND SPECIAL CONDITIONS AS NOTED



WD-1

SOLID CORE FLUSH WOOD IN STEEL FRAME



WD-2

SOLID CORE FLUSH WOOD WITH IMPACT SAFETY GLASS IN STEEL FRAME WITH

NOTE: ALL STEEL DOORS AND DOOR FRAMES TO BE GALVANIZED.

702.4 DOOR ELEVATIONS
SCALE: 1/4" = 1'-0"

CEILING FINISH SCHEDULE

1

TYPE 1

24"x24"x 5/8" ARMSTRONG FINE FISSURED HUMIGUARD PLUS, no. 1728 SQUARE EDGE/PRELUDE XL GRID

TYPE 2

NOT USED.

TYPE 3

24"x24"x 5/8" VINYL FACED GYPSUM PANEL, WHITE STIPPLE FINISH, AL PRELUDE PLUS GRID.

TYPE 4

5/8" MOISTURE RESISTANT GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM

TYPE 5

5/8" GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM.

TYPE 6

ACOUSTICAL SPRAY MATERIAL - SEE ROOM FINISH SCHEDULE FOR COLOR.

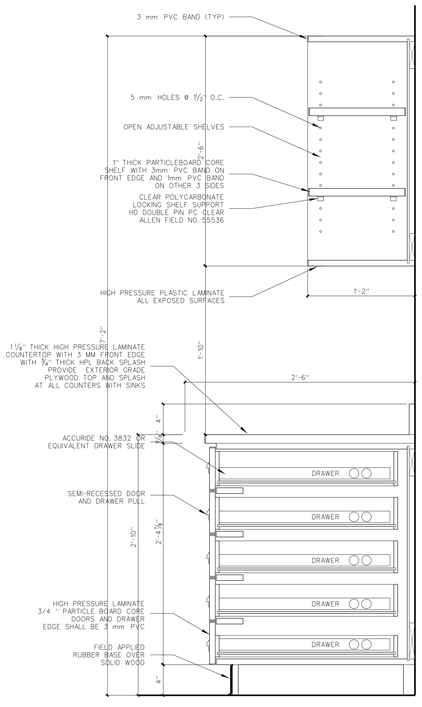
TYPE 7

EXTERIOR INSULATION AND FINISH SYSTEM OVER 5/8" DENS-GLASS SHEATHING.

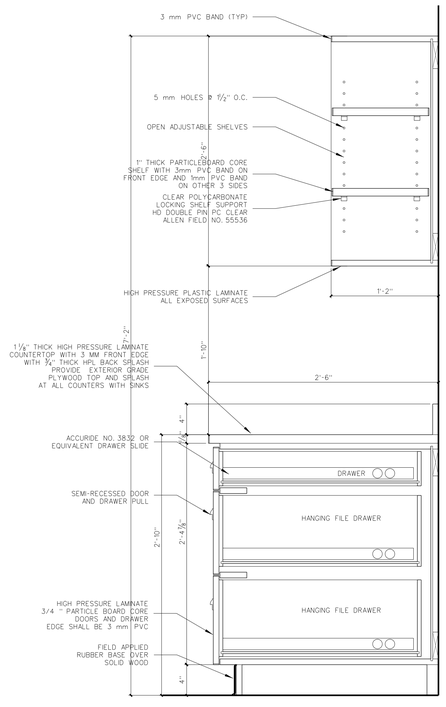
NOTE:
(1) PROVIDE TYPE 1 CEILING UNLESS OTHERWISE NOTED.
(2) PROVIDE 24" x 24" CEILING ACCESS DOOR IN EACH SPACE WITH DRYWALL CEILING.

LEGEND - REFLECTED CEILING PLAN

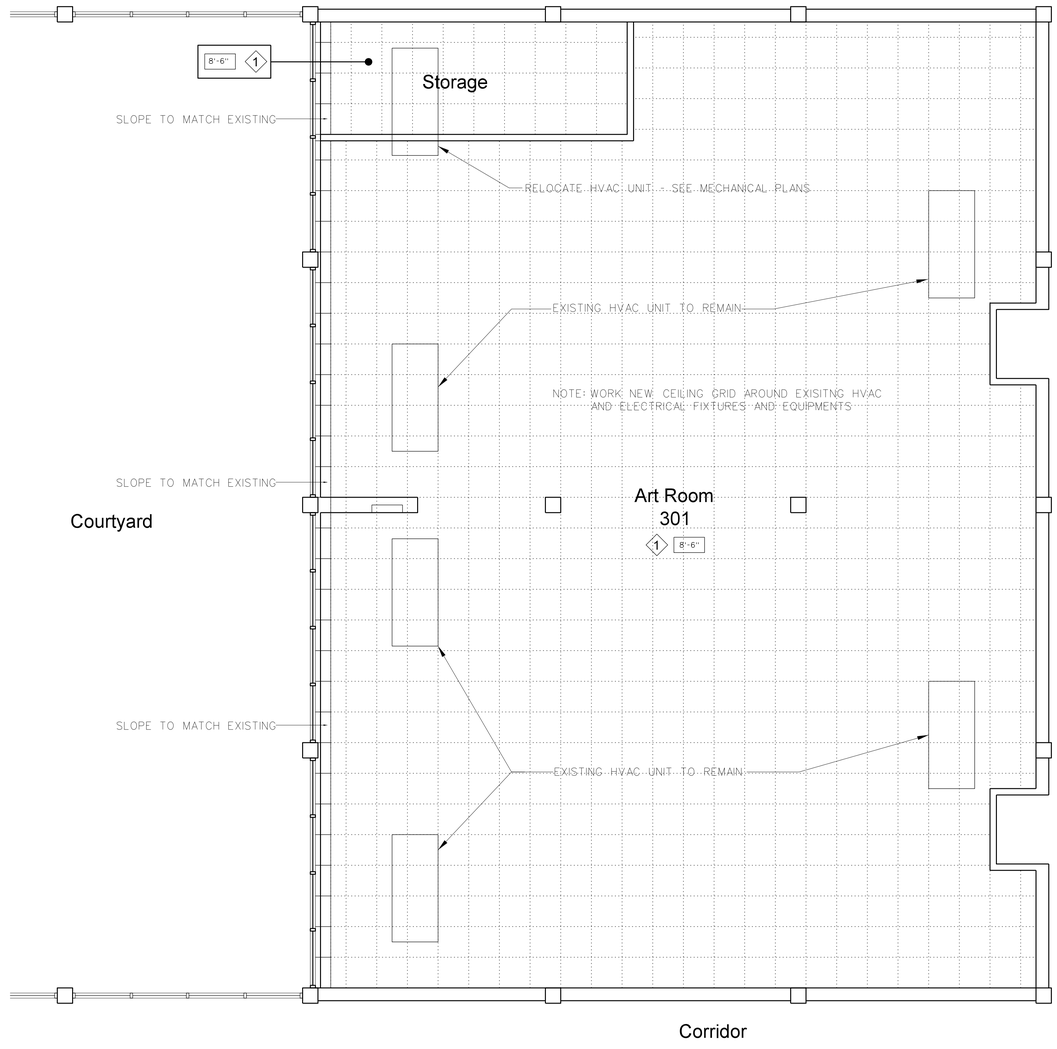
2	CEILING TYPE - SEE CEILING FINISH SCHEDULE
XX'-X"	CEILING HEIGHT ABOVE FINISH FLOOR
	SLOPED CEILING
LS XX'-X"	CEILING HEIGHT ABOVE FINISH FLOOR - LOW SIDE
HS XX'-X"	CEILING HEIGHT ABOVE FINISH FLOOR - HIGH SIDE
	2 x 2 ACOUSTICAL TILE AND GRID
	GYPBOARD CEILING
MR	MOISTURE RESISTANT GYPBOARD CEILING
EXPSTR	EXPOSED STRUCTURE
	METAL SOFFIT
EIFS	EIFS SOFFIT
ACS	DROP-IN TRAY FOR VIDEO MONITOR CEILING BRACKET
LCDP	DROP-IN TRAY FOR LCD PROJECTOR CEILING BRACKET
	FLUORESCENT LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	CEILING MOUNTED TRACK LIGHTING
SP	SPEAKER
	SUPPLY AIR GRILLE
	RETURN AIR GRILLE
	EXHAUST FAN
S	SMOKE SENSOR
	SECURITY CAMERA



702.3 34" BASE CABINET
NOTE: 30" DEEP
SCALE: 1 1/2" = 1'-0"



702.2 34" BASE CABINET
NOTE: 30" DEEP
SCALE: 1 1/2" = 1'-0"



702.1 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

No.	Date:	Revision
1	9/16/24	Revised per Addendum 1

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HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION CERTIFICATE NUMBER 418 GREENVILLE

JAMES GRAY HITE REGISTERED ARCHITECT 3754 GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

Drawing no. A 702

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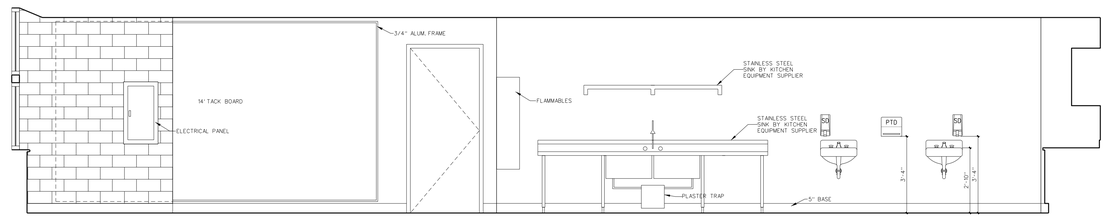
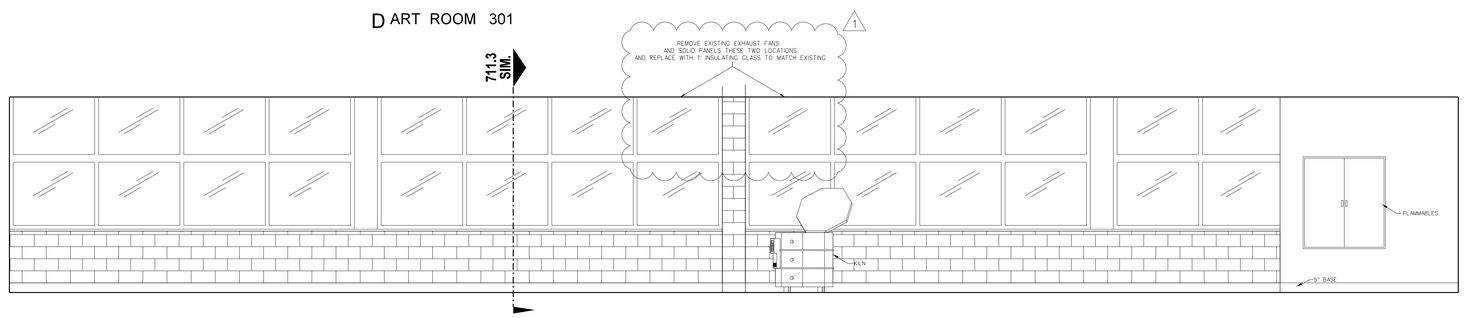
Toilet Accessory Schedule

Mark	Model	Description	Number Required	Remarks
SD	BY OWNER	LOTION SOAP DISPENSER	AS PER PLAN	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
SNDU	BY OWNER	SANITARY NAPKIN DISPENSER	FEMALE TOILETS	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
TPH1	BY OWNER	TOILET PAPER DISPENSER	AS PER PLAN	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
TPH2	BOBRICK B-2740	TOILET PAPER DISPENSER	AS PER PLAN	
MR36	BOBRICK 165-1836	LAMINATED GLASS MIRROR W/ S.S. CHANNEL MOLD	AS PER PLAN	
MR60	BOBRICK 165-2460	LAMINATED GLASS MIRROR W/ S.S. CHANNEL MOLD	AS PER PLAN	
GB18	BOBRICK 6806-18	18" GRAB BAR (MOUNT VERTICALLY)	AS PER PLAN	
GB24	BOBRICK 6806-24	24" GRAB BAR	AS PER PLAN	
GB30	BOBRICK 6806-30	30" GRAB BAR	AS PER PLAN	
GB36	BOBRICK 6806-36	36" GRAB BAR	AS PER PLAN	
GB42	BOBRICK 6806-42	42" GRAB BAR	AS PER PLAN	
PTD	BY OWNER	PAPER TOWEL DISPENSER	AS PER PLAN	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
FSS-1	BOBRICK 5191	FOLDING SHOWER SEAT	AS PER PLAN	H/C TRANSFER TYPE SHOWER
SSCR	BOBRICK 6047	SHOWER CURTAIN ROD	ONE EACH SHOWER	PROVIDE VINYL CURTAIN BOBRICK 204-2/204-3 W/ HOOKS
SDH	BOBRICK-973	SOAP DISH	ONE EACH SHOWER	SEE ELEVATION
DRH	BOBRICK 7672	DOUBLE ROBE HOOK	ONE EACH SHOWER	

ALL MODEL NUMBERS REFERENCE BOBRICK ACCESSORY
PROVIDE BLOCKING AS REQUIRED FOR TOILET ACCESSORIES AND DOOR STOPS



D ART ROOM 301



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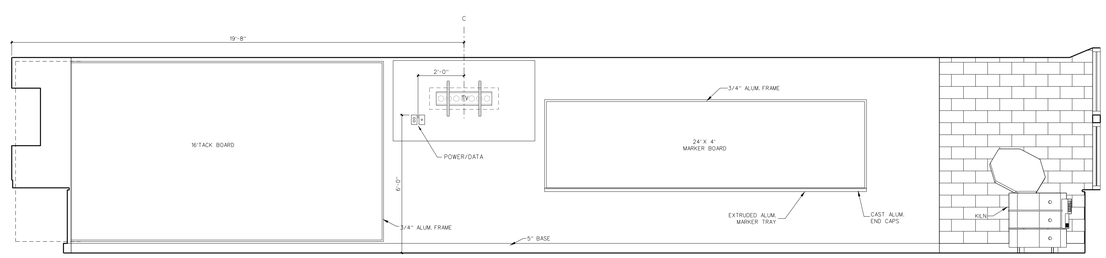

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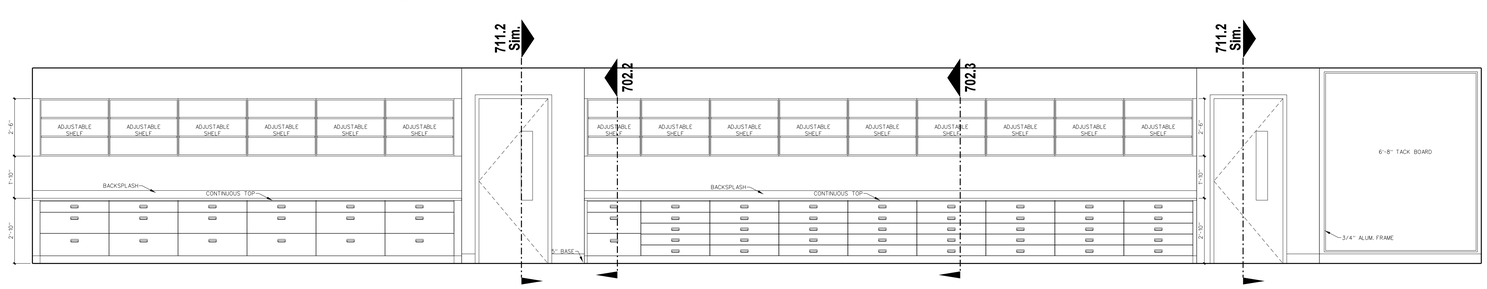

A ART ROOM 301

703.1 ART ROOM INTERIOR ELEVATIONS
SCALE: 3/8" = 1'-0"

No.	Date:	Revision
1	9/16/24	Revised per Addendum 1

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HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION DIVISION OF RAMM ARCHITECTS CERTIFICATE NUMBER 418 GREENVILLE

JAMES GRAY HITE REGISTERED ARCHITECT 3754 GREENVILLE

Art Room and Foods Lab Alterations to
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3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415
Date: 10 July 2024
Drawing no. A 703

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GENERAL DEMOLITION NOTES:

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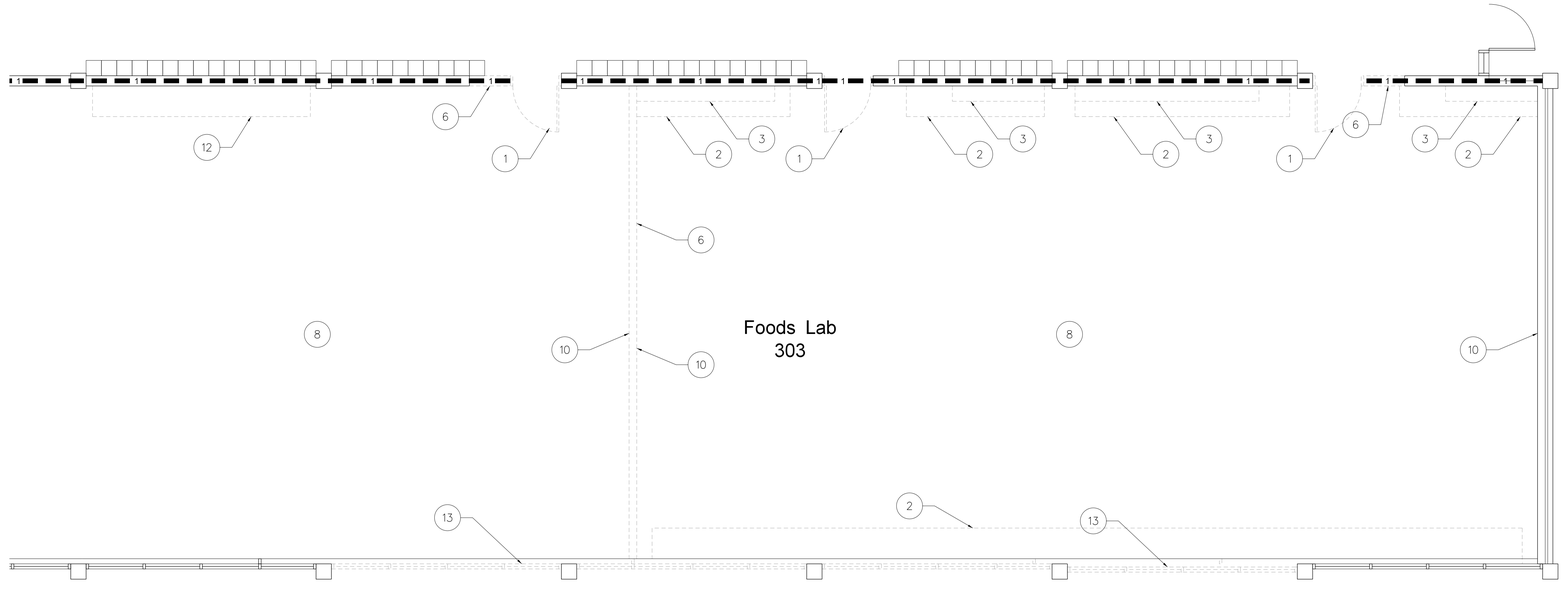
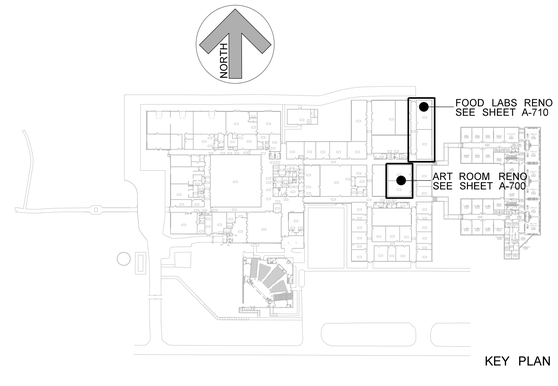
11. DEMOLISH ANY EXISTING UNUSED PLUMBING VENTS. PATCH AND REPAIR ROOF AS REQUIRED. COORDINATE WITH PLUMBING CONTRACTOR.
12. IDENTIFICATION AND REMOVAL OF ASBESTOS CONTAINING MATERIAL TO BE COMPLETED BY CONTRACTOR PRIOR TO ANY DEMOLITION OR CONSTRUCTION. CONTRACTOR TO REVIEW OWNER AHERA DOCUMENTS TO VERIFY SCOPE PRIOR TO COMMERCIAL WORK.
13. EXISTING EXHAUST FANS TO BE ABANDONED ARE TO BE REMOVED. RESULTING ROOF PENETRATIONS ARE TO BE PATCHED AND REPAIRED TO MATCH EXISTING AS REQUIRED. SEE MECHANICAL DRAWINGS. FIELD VERIFY EXISTING ROOF CONSTRUCTION PRIOR TO BID.

KEY NOTES FOR DEMOLITION PLAN

1. REMOVE EXISTING DOOR AND FRAME.
2. REMOVE LOWER CABINETS AND COUNTERTOPS.
3. REMOVE UPPER CABINETS.
4. REMOVE SINKS AND LEAD PIPES TO BELOW FLOOR, CAP AND PATCH.
5. REMOVE STOVES AND POWER SERVICES.
6. REMOVE PORTION OF EXISTING WALL AS INDICATED TO STRUCTURAL BEAM OR CONCRETE DECK ABOVE.
7. REMOVE KILN HOOD AND EXHAUST DUCT AND FAN.
8. REMOVE ALL EXISTING FLOOR TILE, INCLUDING ACM TILE AND ACM ADHESIVE FROM CONCRETE FLOOR.
9. REMOVE ALL EXISTING CEILING TILE AND GRID.
10. REMOVE MARKERBOARDS AND CABINETS. REMOVE ACM MASTIC FROM BEHIND EXISTING BOARDS.
11. REMOVE BOOKCASES.
12. REMOVE STORAGE CABINETS.
13. REMOVE WINDOWS



709.1 DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



KEY PLAN

DRAWING LEGEND

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO BE REMOVED

NOTE: ALL EXISTING DOORS, CASEWORK, AND OTHER SALVAGEABLE ITEMS TO BE REMOVED SHALL BE REMOVED WITH CARE AND TURNED OVER TO THE OWNER.

No.	Date:	Revision:
1	9/16/24	Revised per Addendum 1

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HITE ASSOCIATES, P.C. ARCHITECTURAL CORPORATION REGISTERED CERTIFICATE NUMBER 418 STATE OF NORTH CAROLINA GREENVILLE

JAMES GRAY HITE REGISTERED ARCHITECT 3754 STATE OF NORTH CAROLINA GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No: 22415

Date: 10 July 2024

Drawing no. 709

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DOOR SCHEDULE

MARK		SIZE THK	SIZE WID	SIZE HT	LOCATION	TYPE	DESCRIPTION	FRM WID	FIRE RATING	ELECTRONIC ACCESS CONTROL LOCKSET	ELECTRONIC ACCESS CONTROL EXIT DEVICE	ELECTRIC STRIKE WITH PB	EXIT DEVICE	CLOSER	CLOSER WITH BACKSTOP	AUTO CLOSING HINGES (3PT)	KICK PLATES 1 SET OF TWO	WALL STOP	FLOOR STOP	OVERHEAD STOP	HOOK STOP	PUSH PULL (LATCH PI RATED)	DEADBOLT WITH THUMBTURN	FLUSH BOLTS	ASTRAGAL AND COORDINATOR	PASSAGE SET	PRIVACY LOCKSET WITH INDICATOR	ENTRY OR OFFICE LOCKSET	CLASSROOM LOCKSET	STOREROOM LOCKSET	SMOKE SEAL	SOUND SEAL	MAGNETIC HOLD-OPEN	RETED WALLSTOP	SURF MTD WD LESS BOTTOM ROD	PROVIDE RABBASAND SWEEP ON DOOR BOTTOM
301A		1.75	36	86	ART TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.		1	1					1																		
301B		1.75	36	86	ART TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.		1	1					1																		
301C		1.75	36	86	ART TO STORAGE	WD-1	WOOD	5.75									1									1									
303A		1.75	36	86	FOOD LABS TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.		1	1					1																		
303B		1.75	36	86	FOOD LABS TO CORRIDOR	WD-2	WOOD / VIEW GLASS	5.75	45 MINS.		1	1					1																		
303C	PAIR	1.75	36	86	FOOD LABS TO CLASSROOM		AS SPECIFIED																												

NOTES AND GENERAL AND SPECIAL HARDWARE REQUIRED	
1	ALL DOORS TO RECEIVE HINGES AS SPECIFIED
2	ALL DOORS TO RECEIVE WALL OR OVERHEAD STOPS TO SUIT CONDITION OF USE. DOORS WITH MAGNETIC HOLD OPENS TO RECEIVE FLOOR STOPS.
3	PROVIDE CLOSERS WITH BACKSTOPS EXTERIOR DOORS AND TO SUIT CONDITION OF USE
4	ALL STEEL FRAMES TO BE PROVIDED WITH SILENCERS
5	EXTERIOR DOORS TO BE PROVIDED WITH WEATHERSTRIPPING AND THRESHOLDS
6	EXIT DEVICES TO BE PROVIDED WITH CYLINDERS
7	AT PAIRS OF DOORS, PULL SIDE, PROVIDE PULL OR LEVER RIGHT SIDE ONLY
8	ALUMINUM DOORS - SEE SPECIFICATIONS FOR HARDWARE NOT INDICATED ABOVE
9	PROVIDE CYLINDERS FOR KEYED MULLIONS SUPPLIED BY ALUMINUM DOOR SUPPLIER
10	PROVIDE SOLID WOOD BLOCKING FOR DOOR STOPS AND HOLD OPEN DEVICES
11	EXIT DEVICES AT EXTERIOR DOORS TO BE NL WITH PULL
12	EXIT DEVICES AT INTERIOR DOORS TO BE CLASSROOM FUNCTION WITH LEVER
13	PROVIDE 4" WIDE STEEL JAMBS FOR DOORS ABUTTING STEEL COLUMNS AND SPECIAL CONDITIONS AS NOTED

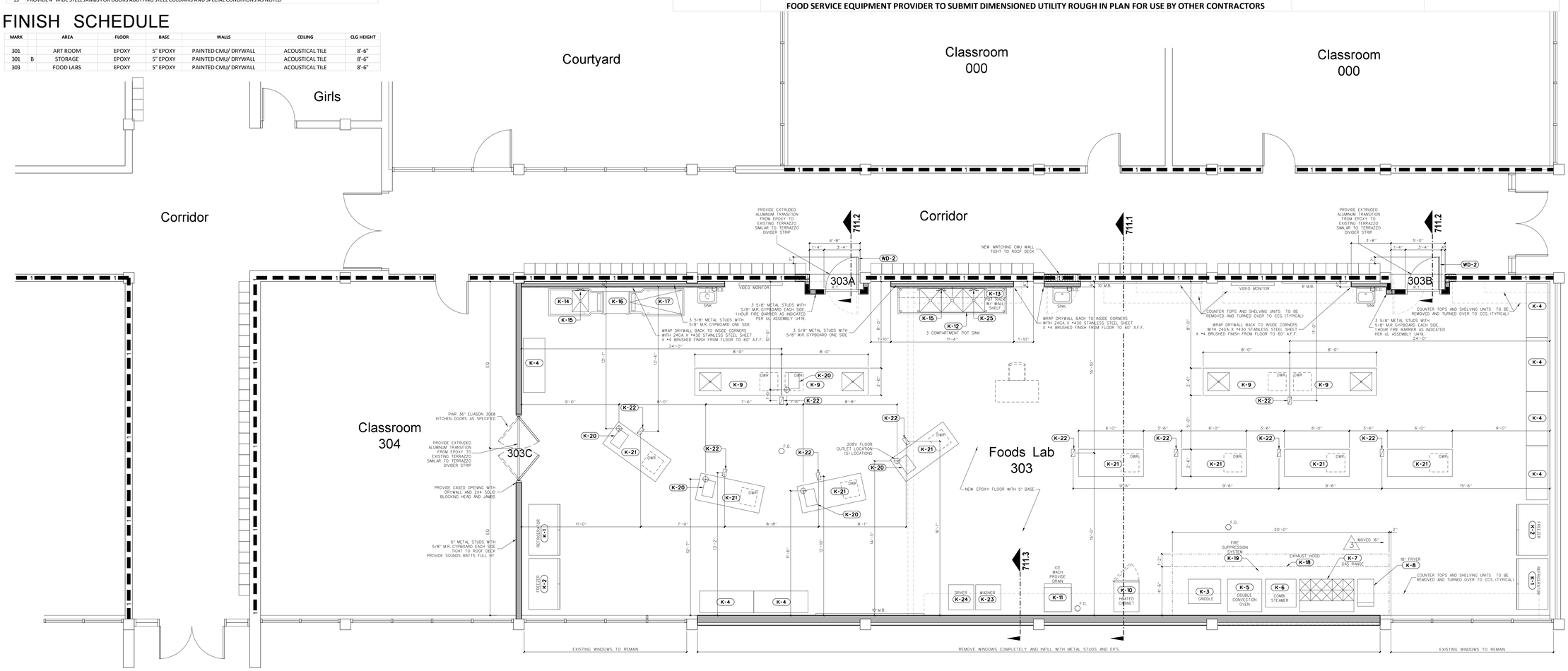
FINISH SCHEDULE

MARK		AREA	FLOOR	BASE	WALLS	CEILING	CLG HEIGHT
301		ART ROOM	EPOXY	5" EPOXY	PAINTED CMU/ DRYWALL	ACOUSTICAL TILE	8'-6"
301	B	STORAGE	EPOXY	5" EPOXY	PAINTED CMU/ DRYWALL	ACOUSTICAL TILE	8'-6"
303		FOOD LABS	EPOXY	5" EPOXY	PAINTED CMU/ DRYWALL	ACOUSTICAL TILE	8'-6"

EAST CARTERET FOODS LAB EQUIPMENT SCHEDULE (Note Equipment ON SITE BY OWNER - GC TO INSTALL)

2

	MARK	DESCRIPTION	MFR / MODEL	SIZE W X D X H	ELECTRICAL VOLTS	PHASE	KW/HP	AMPS	PLUMBING HW	CW	WASTE	INDIRECT	GAS SIZE	BTUH/HR	REMARKS	OPTIONS (PROVIDE)
	K-1	REFRIGERATOR	TRUE T-49-HC	54 X 30 X 78	115	1	1/2	5.4								
	K-2	FREEZER	TRUE T-49F-HC	54 X 30 X 78	115	1	1	9.6								
	K-3	GRIDDLE WITH STAND	VULCAN VCRG-36-M	36 X 27 X 16	115	1		5					3/4	75,000	PROPANE 10" WC	3 BURNERS
	K-3a	GRIDDLE STAND	NEW AGE IND 130366SU	36 X 30 X 24											ALUMINUM 12 GA	UNDERSHELF, NO CASTERS
ON SITE AND BY OWNER	K-4	SHELVING	METRO, SUPER ERECTA EZ 2460NK3-4	60 X 24 X 74											EPOXY COATED	
	K-5	GAS DOUBLE CONVECTION OVEN	BLODGETT ZEPHAIRE-100-G-ES	38 X 38 X 71	115 (EA)	1		8					3/4	90000 (EA)	PROPANE 11" TO 13" WC INLET PRESSURE	FOURTEEN 12"X20" PANS, SEVEN FULL SIZE SHEET PANS
	K-6	GAS COMBI STEAMER	BLODGETT BCX-14G	42 X 40 X 69	115	1		12		3/4		2	3/4	115,000	PROPANE 14" WC INLET PRESSURE	CASTERS FOR SINGLE OVEN STAND
ON SITE AND BY OWNER	K-7	10 BURNER GAS RANGE	VULCAN 60SC-10BP	60 X 30 X 37	115	1		4					1"	358,000	PROPANE 11" WC INLET PRESSURE	CASTERS - ALL SWIVEL - FRONT WITH LOCKS
	K-8	GAS FLOOR FRYER	ALTOSA ATFS-40LP	16 X 30 X 44									3/4	90,000	PROPANE 10" WC	
	K-9	SINK TABLE	ATOSA USA SSTW-3096	96 X 30 X 36											PROVIDE 20x20x5 S.S. DRAWER	
	K-9a	DROP IN SINK	ADVANCE TABCO DI-1-35	14 X 10 X 5					1/2	1/2					WITH FAUCETS AND SWING SPOUT, FITTINGS	DECK MOUNTED 8 1/2" GOOSENECK 4"O.C. - K55
	K-10	HEATED CABINET	WINSTON HOVS-14UV	28 X 34 X 73	120	1		19.1								
ON SITE AND BY OWNER	K-11	ICE MACHINE	HOSHIZAKI KM-520MAJ/B-30S5F	22 X 33 X 74	115	1		10.6		3/8	3/4				ICE MACHINE WITH STORAGE BIN	
	K-12	3 COMPARTMENT SINK	ADVANCE TABCO 94-43-72-24RL	120 X 30 X 36											PROVIDE LEVER DRAINS	
ON SITE AND BY OWNER	K-13	POT RACK AND SHELF	REGENCY	72 X 12											PROVIDE ONE FOR ART ROOM	
	K-14	SOILED DISH TABLE WITH PREWASH SINK	ADVANCE TABCO DTS-570-60L	60 X 30 X 36												
	K-15	SWING NOZZLE FAUCET WITH FLEX HOSE	T & S B-0133-A12B-TEE												PROVIDE ONE FOR ART ROOM	
	K-16	AUTO POT WASHER	JACKSON TEMPSTAR VER	32 X 31 X 82	208	1	1	4.1 / 10.5	3/4		1 1/2				VENTLESS WITH ENERGY RECOVERY	
	K-17	CLEAN DISH TABLE	ADVANCE TABCO DTC-570-60R	60 X 30 X 36												
BY MECHANICAL SUBCONTRACTOR	K-18	EXHAUST HOOD	BY MECHANICAL CONTRACTOR													
BY MECHANICAL SUBCONTRACTOR	K-19	AUTO FIRE SUPPRESSION SYSTEM	BY MECHANICAL CONTRACTOR													
ON SITE AND BY OWNER	K-20	COUNTERTOP INDUCTION RANGE	HATCO IRNC-HCI-18		208		3.10	15								
ON SITE AND BY OWNER	K-21	WORK TABLE	ATOSA USA SSTW-3072	72 X 30 X 36											PROVIDE 20x20x5 S.S. DRAWER	
BY ELECTRICAL SUBCONTRACTOR	K-22	ELECTRIC REELS	BY ELECTRICAL CONTRACTOR												VERIFY EXACT MOUNTING LOCATION WITH ARCHITECT	
ON SITE AND BY OWNER	K-23	WASHER TOP LOAD ELECTRIC	WHIRLPOOL WTW 4855 H	27 x 27 X 44	115	1			1/2	1/2	2					
ON SITE AND BY OWNER	K-24	DRYER FRONT LOAD ELECTRIC	WHIRLPOOL WED 4850 H	27 x 27 X 44	208											
	K-25	SWING FAUCET	T & S B-0231													
	K-26	TWO COMPARTMENT SINK	ADVANCE TABCO 93-42-48-36RL	25 X 32 X 36											PROVIDE FOR ART ROOM	
	NOTE:	ALL GAS EQUIPMENT TO BE CONFIGURED FOR PROPANE AND COMPLETE WITH REQUIRED REGULATORS														
		ALL ROUGH-INS AND EQUIPMENT UTILITY CONNECTIONS BY G.C.														
		THREE K ITEMS TO BE PROVIDED FOR ART ROOM - SEE REMARKS														
		FOOD SERVICE EQUIPMENT PROVIDER TO SUBMIT DIMENSIONED UTILITY ROUGH IN PLAN FOR USE BY OTHER CONTRACTORS														



710.1 FOODS LAB FLOOR PLAN

SCALE: 1/4" = 1'-0"

DRAWING LEGEND

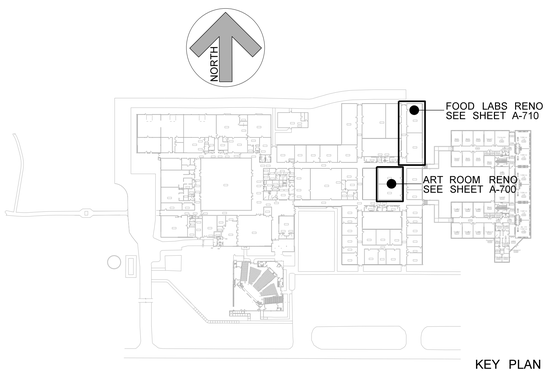
- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW GYPBOARD / METAL STUD CONSTRUCTION
- NEW CMU CONSTRUCTION
- NEW MASONRY CONSTRUCTION

NOTE: ALL EXISTING DOORS, CASEWORK, AND OTHER SALVAGEABLE ITEMS TO BE REMOVED SHALL BE REMOVED WITH CARE AND TURNED OVER TO THE OWNER.

ABBREVIATIONS

CB	CHALKBOARD
MB	MARKERBOARD
VDB	VISUAL DISPLAY MONITOR
MVDM	MOBILE VISUAL DISPLAY MONITOR
TB	TACK BOARD
BK	BOOKCASE
CU	CUBBIES
IAWB	INTERACTIVE WHITE BOARD
VM	FLAT SCREEN T.V.
MT	METAL THRESHOLD W/ 1/2" MAX. LIP
RT	RUBBER TRANSITION W/ 1/2" MAX. LIP
FEC	FIRE EXTINGUISHER CABINET
C.J.	CONTROL JOINT
E.J.	EXPANSION JOINT
TD	TRAVEL DISTANCE

SEE SHEET T-1 FOR ADDITIONAL ABBREVIATIONS



KEY PLAN

No.	Date:	Revision:
3	2/11/25	MOVED HOOD 16"
2	11/27/24	Revised Schedule
1	9/16/24	Revised per Addendum 1

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JAMES GRAY HITE REGISTERED ARCHITECT MICHIGAN 3 GREENVILLE

Art Room and Foods Lab Alterations to
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3263 Hwy. 70, Beaufort, NC 28516
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Project No. 22415

Date: 10 July 2024

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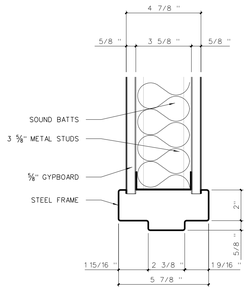
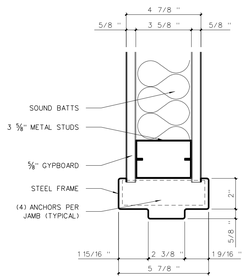
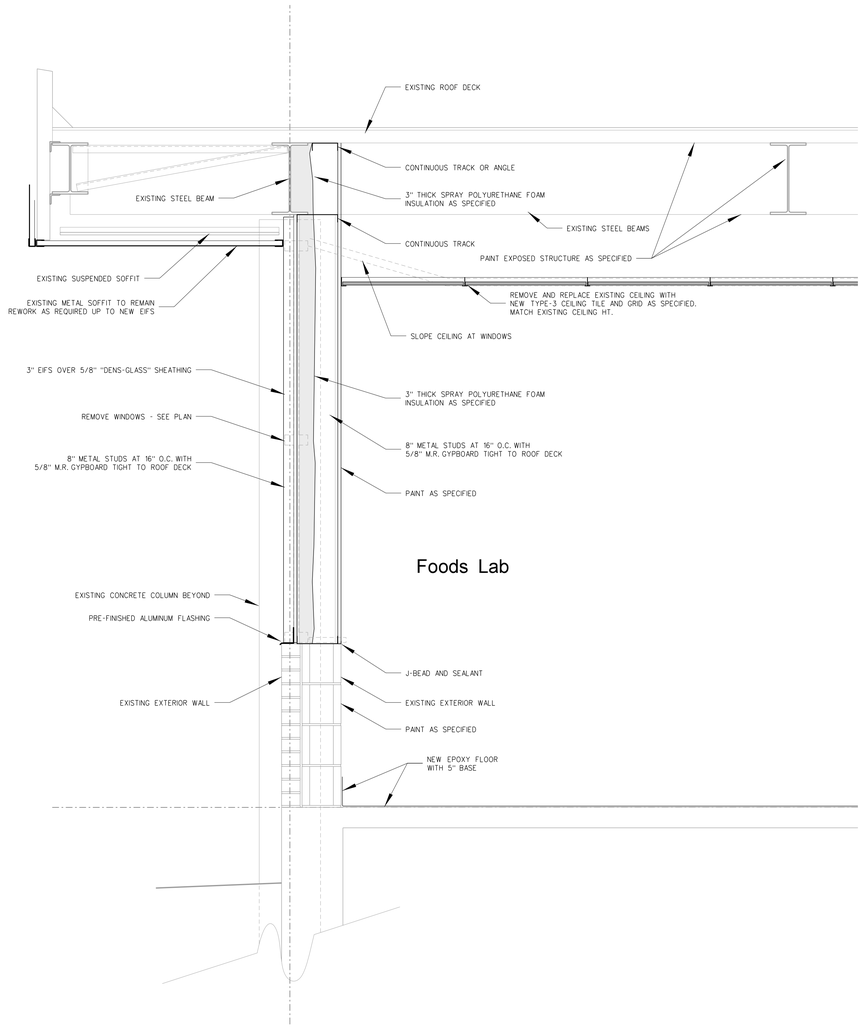


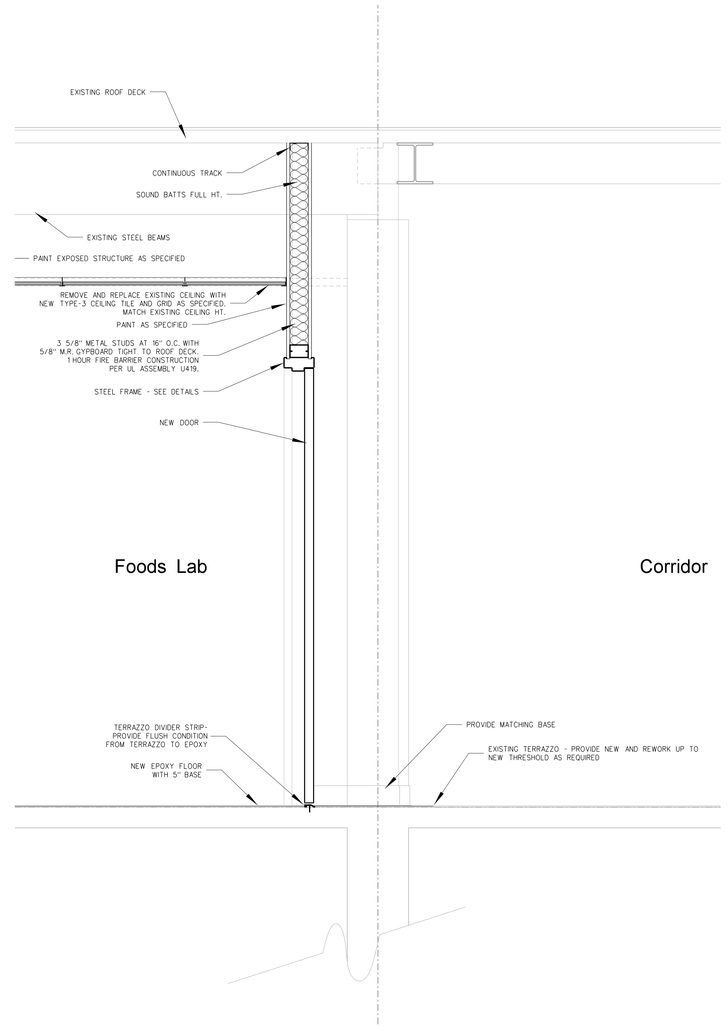
711.5 DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



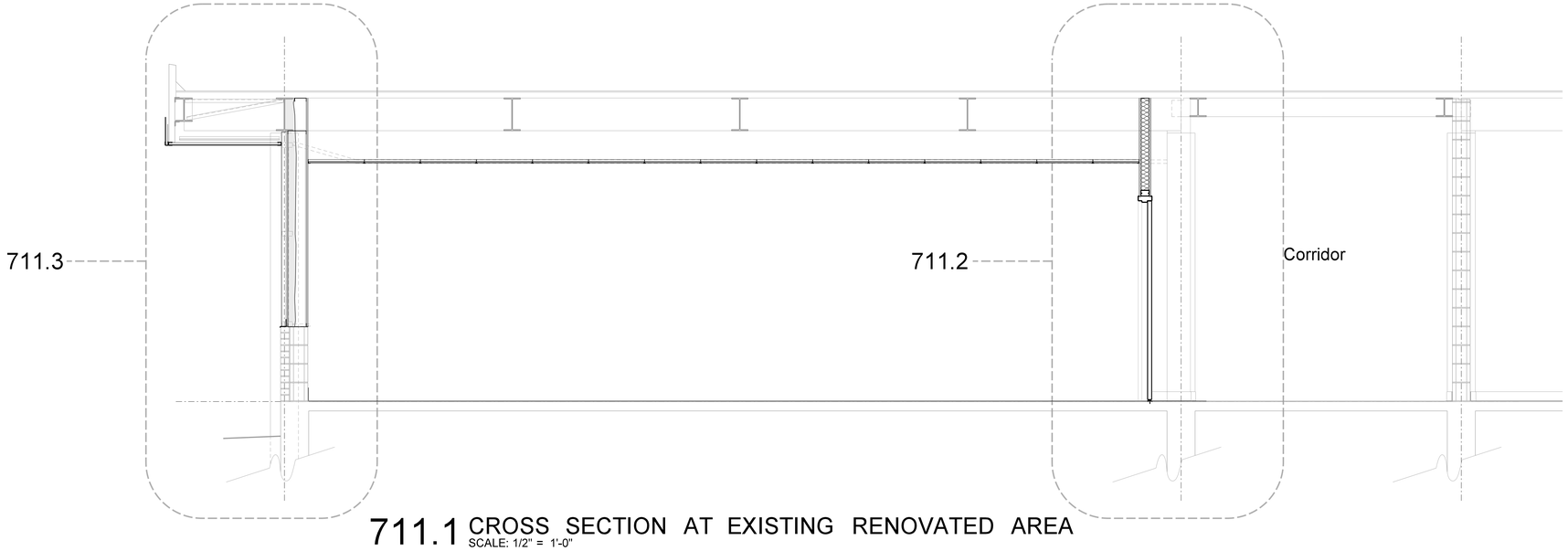
711.4 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



711.3 WALL SECTION AT FOODS LAB
SCALE: 1" = 1'-0"



711.2 WALL SECTION AT FOODS LAB
SCALE: 1" = 1'-0"



711.1 CROSS SECTION AT EXISTING RENOVATED AREA
SCALE: 1/2" = 1'-0"

No.	Date:	Revision

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JAMES GRAY HITE REGISTERED ARCHITECT 3 STATE OF NORTH CAROLINA GREENVILLE

Art Room and Foods Lab Alterations to
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22415

Date: 10 July 2024

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CEILING FINISH SCHEDULE

TYPE 1

24"x24"x 5/8" ARMSTRONG YUKON HUMIGUARD PLUS, no. 8770 SQUARE EDGE/PRELUDE XL GRID

TYPE 2

NOT USED.

TYPE 3

24"x24"x 5/8" VINYL FACED GYPSUM PANEL, WHITE STIPPLE FINISH, AL PRELUDE PLUS GRID.

TYPE 4

5/8" MOISTURE RESISTANT GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM

TYPE 5

5/8" GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM.

TYPE 6

ACOUSTICAL SPRAY MATERIAL - SEE ROOM FINISH SCHEDULE FOR COLOR.

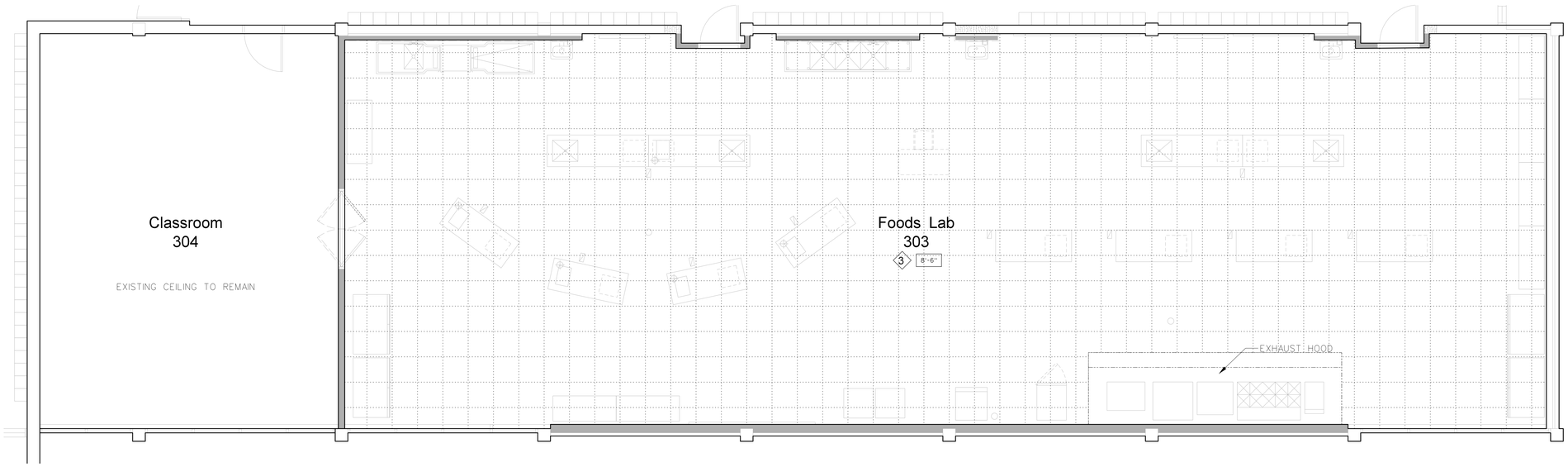
TYPE 7

EXTERIOR INSULATION AND FINISH SYSTEM OVER 5/8" DENS-GLASS SHEATHING.

NOTE:
(1) PROVIDE TYPE 1 CEILING UNLESS OTHERWISE NOTED.
(2) PROVIDE 24" x 24" CEILING ACCESS DOOR IN EACH SPACE WITH DRYWALL CEILING.

LEGEND - REFLECTED CEILING PLAN

2	CEILING TYPE - SEE CEILING FINISH SCHEDULE
XX'-X"	CEILING HEIGHT ABOVE FINISH FLOOR
	SLOPED CEILING
LS XX'-X"	CEILING HEIGHT ABOVE FINISH FLOOR - LOW SIDE
HS XX'-X"	CEILING HEIGHT ABOVE FINISH FLOOR - HIGH SIDE
	2 x 2 ACOUSTICAL TILE AND GRID
	GYPBOARD CEILING
MR	MOISTURE RESISTANT GYPBOARD CEILING
EXPSTR	EXPOSED STRUCTURE
	METAL SOFFIT
EIFS	EIFS SOFFIT
VMCL	DROP-IN TRAY FOR VIDEO MONITOR CEILING BRACKET
LCPC	DROP-IN TRAY FOR LCD PROJECTOR CEILING BRACKET
	FLUORESCENT LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	CEILING MOUNTED TRACK LIGHTING
SP	SPEAKER
	SUPPLY AIR GRILLE
	RETURN AIR GRILLE
	EXHAUST FAN
S	SMOKE SENSOR
	SECURITY CAMERA



712.1 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

No.	Date:	Revision

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JAMES GRAY HITE REGISTERED ARCHITECT 3754 GREENVILLE

Art Room and Foods Lab Alterations to
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Project No. 22415
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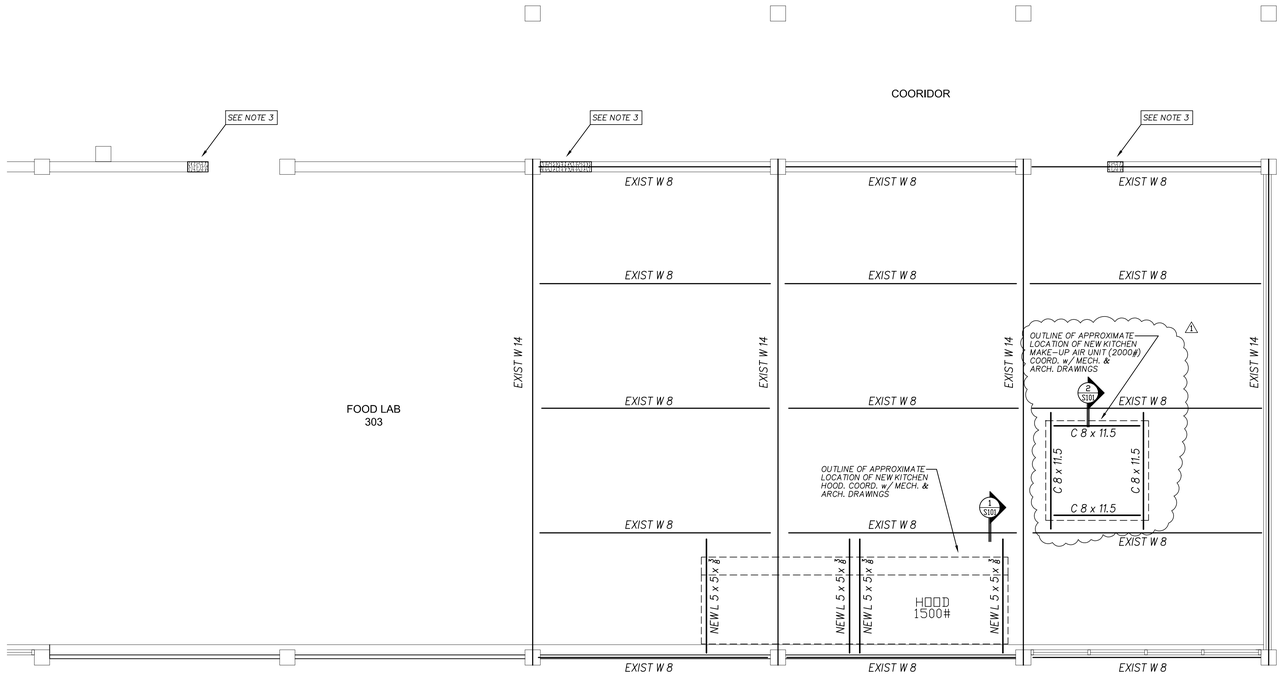


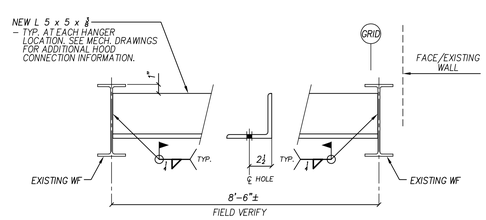
FOOD LAB ROOF PART PLAN

1" = 1'-0"

1.) CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AS REQUIRED. IF EXISTING CONDITIONS ARE NOT AS THAT DEPICTED, THE CONTRACTOR SHALL REPORT AND COORDINATE WITH THE STRUCTURAL ENGINEER OF RECORD.

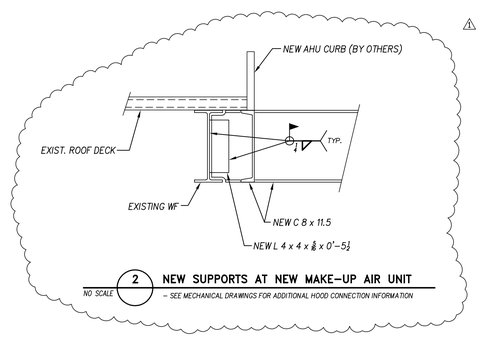
2.) SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL NOTES THAT APPLY.

3.) TYPICAL NEW CMU INFILL NOTES (WHERE REQUIRED):
INFILL EXISTING CMU WALL WITH NEW CMU. SEE ARCH. FOR CMU SIZE REINFORCE WITH NEW #5 @ 24" o/c. DOWEL INTO EXISTING AT SAME SPACING AS NEW REINF., TOP & BOTT. 8" MIN. EMBED. USE HILTI HVA SYSTEM OR APPROVED EQUAL. JOINT REINF. WITH LADDER WIRE AS SPECIFIED. FILL ALL REINF. CELLS SOLID. INSTALL NEW BRICK AS REQUIRED. SEE ARCH. DRAWINGS. INSTALL NEW MASONRY TIES AS SPECIFIED. SEE ARCH. DRAWINGS FOR ALL NEW INFILL LOCATIONS.



NO SCALE **1 NEW ANGLE SUPPORTS AT NEW KITCHEN HOOD**

– SEE MECHANICAL DRAWINGS FOR ADDITIONAL HOOD CONNECTION INFORMATION
– DRILL (DO NOT TORCH) ROD HANGER CONNECTION HOLES



NO SCALE **2 NEW SUPPORTS AT NEW MAKE-UP AIR UNIT**

– SEE MECHANICAL DRAWINGS FOR ADDITIONAL HOOD CONNECTION INFORMATION

No.	Date:	Revision
1	9/20/24	REVISED PER PMAE REVISION

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NORTH CAROLINA PROFESSIONAL SEAL 18991 ENGINEER BRUCE L. QUEEN
19 AUG 2024

Food Lab Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County / North Carolina

Project No. 22111
Date: 19 AUG 2024
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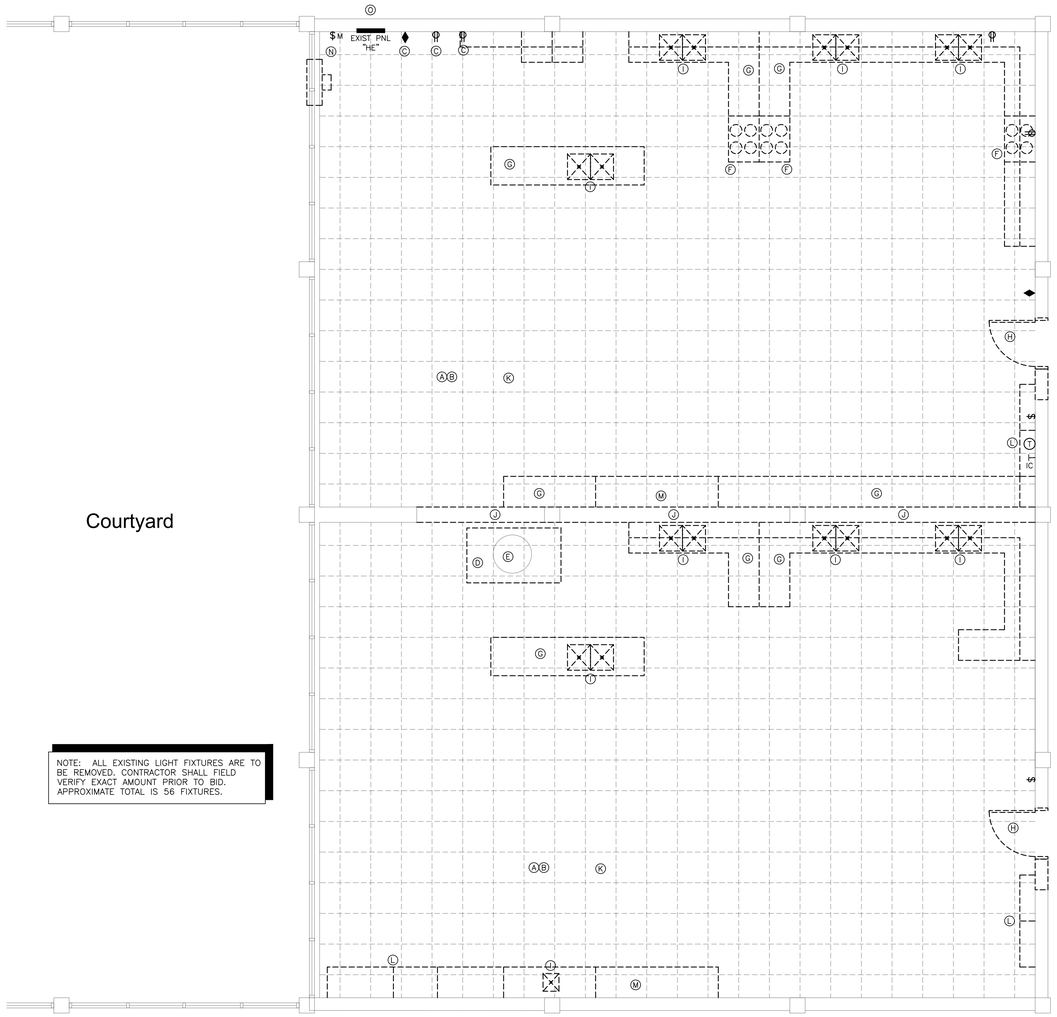


NOTE: ALL EXISTING LIGHT FIXTURES ARE TO BE REMOVED. CONTRACTOR SHALL FIELD VERIFY EXACT AMOUNT PRIOR TO BID. APPROXIMATE TOTAL IS 56 FIXTURES.

700.1 ART ROOM DEMO PLAN

SCALE: 1/4" = 1'-0"

DEMO PLAN KEY NOTES:

- (A) REMOVE ALL EXISTING LIGHTING FIXTURES. MAINTAIN EXISTING UNSWITCHED LOCAL LIGHTING CIRCUIT FOR REUSE.
- (B) REMOVE ALL CEILING TILE AND GRID
- (C) ELEC. CONTR. SHALL REMOVE EXISTING RECEPTACLES AND DATA AS PER PLANS. MAINTAIN UNSWITCHED CIRCUIT FOR REUSE. G.C. TO REPAIR & FINISH WALL.
- (D) DISCONNECT AND REMOVE KILN HOOD, DUCT, AND EXHAUST FAN.
- (E) REMOVE AND MAINTAIN KILN FOR REUSE.
- (F) REMOVE EXISTING STOVES AND ASSOCIATED ELECTRICAL CIRCUITS.
- (G) REMOVE EXISTING UPPER AND LOWER CABINETS AND COUNTERTOPS.
- (H) REMOVE EXISTING DOOR AND FRAME.
- (I) REMOVE EXISTING SINKS AND LEAD PIPES TO BELOW FLOOR. CAP AND PATCH
- (J) REMOVE PORTION OF EXISTING INTERIOR WALL AS INDICATED ON PLANS. REMOVE ANY RECEPTACLES, DATA PORTS, AND SWITCHES LOCATED ON WALL TO BE REMOVED, IF ANY.
- (K) REMOVE ALL EXISTING FLOOR TILE, INCLUDING ACM TILE AND ACM ADHESIVE FROM CONCRETE FLOOR.
- (L) REMOVE BOOKCASES AND STORAGE CABINETS.
- (M) REMOVE MARKERBOARDS AND CABINETS. REMOVE ACM MASTIC FROM BEHIND EXIST BOARDS.
- (N) REMOVE EXHAUST FAN AND MOTOR SWITCH. G.C. TO REPAIR AND FINISH THE WALL.
- (O) EXISTING PANEL "HE" TO BE REMOVED. CONTRACTOR SHALL DISCONNECT EXISTING FEEDERS AND MAINTAIN FOR REUSE WITH NEW ELECTRICAL PANEL. SEE PANEL "HE" DEMO PANEL SCHEDULE LOCATED ON THIS SHEET. MAINTAIN ALL CIRCUITS DESIGNATED AS "TO REMAIN" FOR CONNECTION TO NEW PANEL SCHEDULE. GC SHALL CUT/DEMO WALL AS NECESSARY TO TURN NEW PANEL INTO CORRIDOR BEHIND EXISTING "HE" AND REPAIR/FINISH WALL IN ART ROOM.

EXISTING PANELBOARD SCHEDULE - "HE" DEMO PANEL SCHEDULE

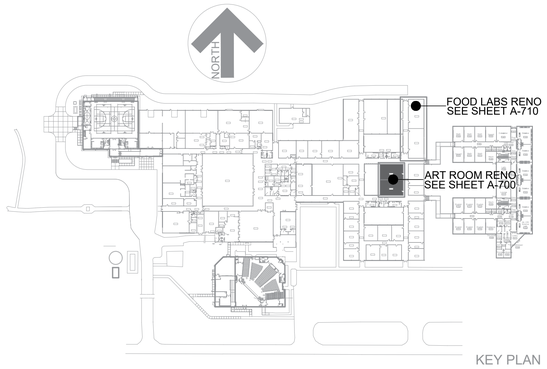
MAIN: 225 | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22,000 | BUS BARS: COPPER

CKT #	BKR TRIP	POLE	WIRE SIZE	COND SIZE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE A	PHASE B	PHASE C	LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	COND SIZE	WIRE SIZE	POLE	BKR TRIP	CKT #
1	50	2	6	1"	STOVE (1)																		UNKNOWN (1)	3/4"	12	2	20	2
3																												4
5	50	1	6	1"	STOVE (1)																		WATER HEATER (1)	3/4"	10	2	30	6
7																												8
9	20	1	12	3/4"	WIRE MOLD UNDER WINDOW (2)																		STOVETOP (1)	3/4"	10	2	30	10
11	20	1	12	3/4"	WIRE MOLD UNDER WINDOW (2)																							12
13	30	1	10	3/4"	DRYER (1)																		REED BY MIRROR (1)	3/4"	12	1	20	14
15																							CHOTHES WASHER (1)	3/4"	10	1	30	16
17	20	1	12	3/4"	UNKNOWN (2)																		SPACE			1		18
19	20	1	12	3/4"	RECEPT BY PNL (2)																		WATER HEATER (1)	3/4"	10	1	30	20
21		1			SPACE																		GARBAGE DISPOSAL (1)	3/4"	12	1	20	22
23	20	1	12	3/4"	REFRIGERATOR (2)																		SPACE			1		24
25	20	1	12	3/4"	UNKNOWN (2)																		RECEPT COUNTER TOP (2)	3/4"	12	1	20	26
27	20	1	12	3/4"	FAN COIL (2)																		RECEPT BY SINK (2)	3/4"	12	1	20	28
29	20	1	12	3/4"	DISH WASHER (1)																		COUNTER TOP WIREMOLD (2)	3/4"	12	1	20	30
31	30	1	10	3/4"	WALL OVEN (1)																		BLOCK REFRIGERATOR & REC (2)	3/4"	12	1	20	32
33																							RECEPT BEHIND SINK (2)	3/4"	12	1	20	34
35	20	1	12	3/4"	FAN COIL (2)																		COUNTER TOP RECEPT (2)	3/4"	12	1	20	36

LIGHTING (KVA):	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECEPTACLES (KVA):	0.0						
MOTORS (KVA):	0.0					PHASE A	0
A/C (KVA):	0.0					PHASE B	0
HEATING (KVA):	0.0					PHASE C	0
KITCHEN (KVA):	0.0					KVA	AMPS
MISCELLANEOUS (KVA):	0.0						

CONNECTED LOAD (KVA):	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEMAND LOAD (KVA):	0.0						
CONNECTED LOAD (AMPS):	0.0						
DEMAND LOAD (AMPS):	0.0						

NOTES: (1) - INDICATES EXISTING CIRCUIT TO BE REMOVED. E.C. SHALL REMOVE ALL FEEDERS ASSOCIATED AND INSTALL BLANK COVER PLATES ON OUTLET OR JUNCTION BOXES, AS REQUIRED.
(2) - INDICATES EXISTING CIRCUIT TO REMAIN. E.C. SHALL DISCONNECT ASSOCIATED FEEDERS FROM EXISTING PANEL AND SAVE FOR REUSE AND CONNECTION TO NEW ELECTRICAL PANEL REPLACING PANEL "HE".



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No.	Date	Revision

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. PME 700

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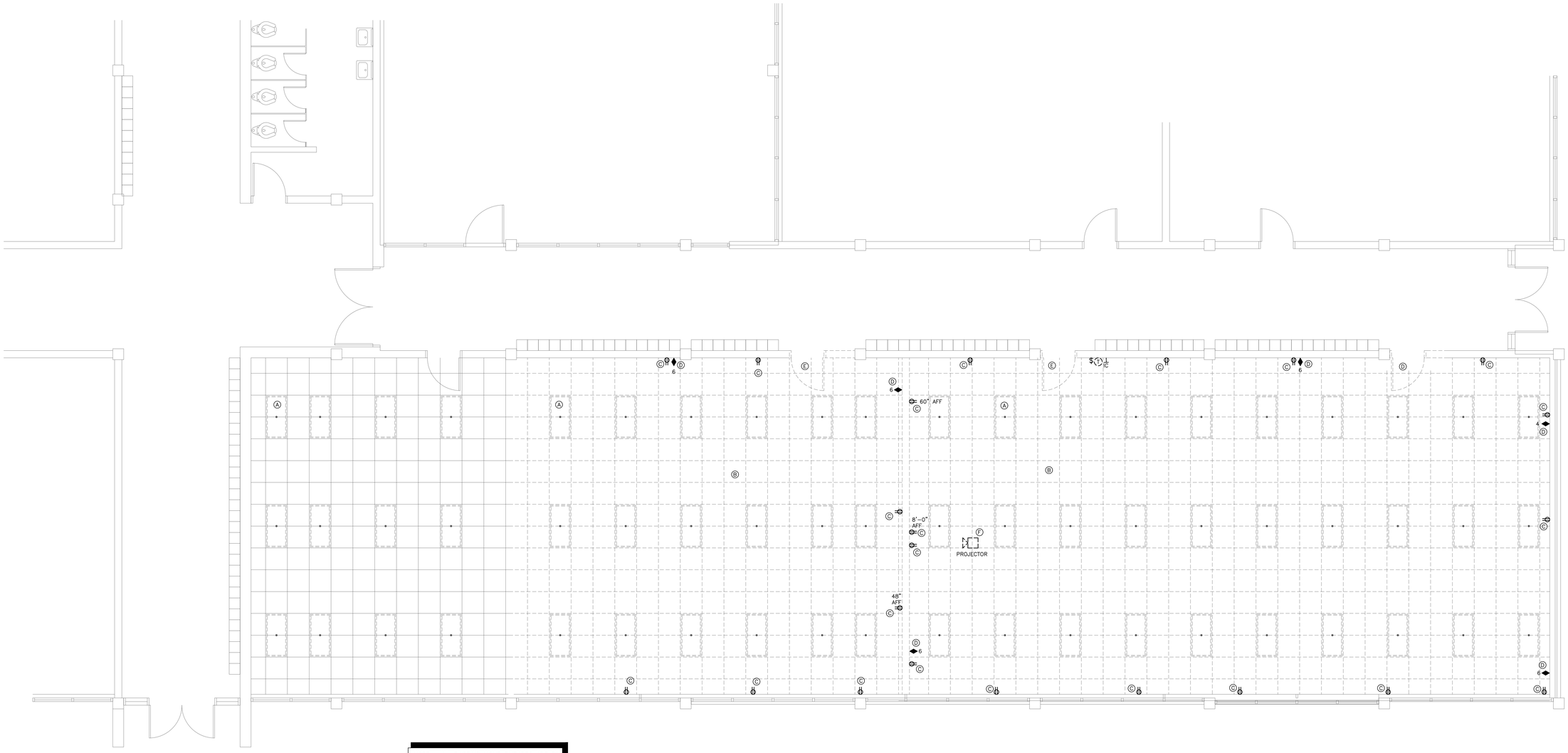


NOTE: ALL EXISTING LIGHT FIXTURES ARE TO BE REMOVED. CONTRACTOR SHALL FIELD VERIFY EXACT AMOUNT PRIOR TO BID. APPROXIMATE TOTAL IS 64 FIXTURES.

710.1 FOOD LAB DEMO PLAN
SCALE: 1/4" = 1'-0"

ELEC DEMO PLAN NOTES:

(A) REMOVE ALL EXISTING LIGHTING FIXTURES & SINGLE SW. LOCATED IN MIDDLE OF NEW FOOD LAB. MAINTAIN EXISTING UNSWITCHED LOCAL LIGHTING CIRCUIT FOR REUSE.

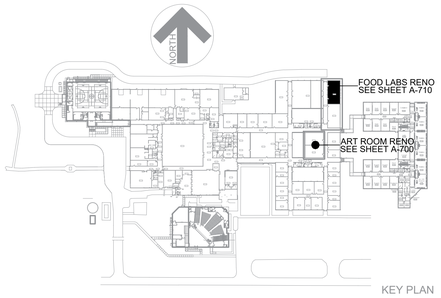
(B) REMOVE CEILING TILES AND GRID AS PER PLANS ABOVE.

(C) ELEC. CONTR. SHALL REMOVE EXISTING RECEPTACLE AS PER PLANS ABOVE. MAINTAIN UNSWITCHED CIRCUIT FOR REUSE. G.C. TO REPAIR & FINISH WALL.

(D) ELEC. CONTR. SHALL REMOVE EXISTING DATA AS PER PLANS ABOVE. G.C. TO REPAIR & FINISH WALL.

(E) REMOVE EXISTING DOOR AND FRAME.

(F) REMOVE EXISTING PROJECTOR



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HITE ASSOCIATES P.C. GREENVILLE, N.C. REGISTERED ARCHITECTURAL CORPORATION

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111

Date: 26 AUGUST, 2024

Drawing no. PME 710

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PLUMBING GENERAL NOTES:

1. THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH N.C. PLUMBING CODE AND LOCAL PLUMBING INSPECTOR.

2. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, TEES, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.

3. THE PLUMBING CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PLUMBING FIXTURES & EQUIPMENT WITH OTHER PRIME CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS. CONTACT ARCHITECT IF ALTERNATE INSTALLATION METHOD IS REQUIRED.

4. THE LOCATIONS OF KNOWN EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE METHOD & HAVE NOT BEEN VERIFIED; CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK & IS RESPONSIBLE FOR ANY DAMAGE INCURRED BY FAILURE TO DO SO. CALL UTILITY LOCATOR SERVICE 48 HOURS BEFORE EXCAVATION (1-800-632-4949). ALSO CONTACT SCHOOL MAINTINANCE DEPARTMENT AND USE PRIVATE UTILITY LOCATOR SERVICE AS NEED TO IDENTIFY ALL EXISTING UNDERGROUND UTILITIES.

5. THESE PLANS ARE DIAGRAMMATIC. DO NOT SCALE THESE DRAWINGS. REFER TO LARGEST SCALE ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, TEES, ELBOWS, ETC. FOR A COMPLETE WORKING PLUMBING SYSTEM.

6. THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, TAPS, ETC.

7. CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.

8. HVAC DUCTWORK HAS RIGHT-OF-WAY OVER PLUMBING PIPES; COORDINATE AS REQUIRED. NO PIPING SHALL BE INSTALLED OVER ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, ETC., PER NEC ARTICLE 110.

9. ALL SUPPLY, DRAIN, AND VENT PIPING SHALL BE CONCEALED (EXCEPT AT FIXTURES) UNLESS OTHERWISE NOTED. ALL PIPE CONTAINING LIQUIDS INSIDE BUILDING ARE TO BE LOCATED WITHIN THE "INSULATION ENVELOPE".

10. ALL DOMESTIC WATER PIPING SHOWN IS ABOVE, BETWEEN FLOOR JOIST/WITHIN WALLS, AND IN CRAWL SPACES UNLESS OTHERWISE NOTED.

11. "PROVIDE" IS DEFINED AS FURNISH AND INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.

12. ALL DOMESTIC WATER PIPING SHALL BE TYPE L COPPER ABOVE GRADE, TYPE K BELOW WITH NO JOINTS UNDER SLAB. INSULATE HOT AND COLD WATER PIPING AS SPECIFIED. PRESSURE TEST SYSTEM AT 100 PSIG FOR 24 HOURS OR 150 PSIG FOR 4 HOURS. COPPER TUBING BELOW GRADE SHALL BE UTILIZED AS THE ELECTRICAL SYSTEM GROUNDING ELECTRODE.

13. ALL WATER PIPING SHALL BE INSULATED WITH PRE-FORMED FIBERGLASS TYPE INSULATION WITH THE FLAME DENSITY RATING NOT EXCEEDING 25 & THE SMOKE DENSITY RATING NOT EXCEEDING 50. THICKNESS FOR COLD WATER PIPING SHALL BE 1/2" THICK. THICKNESS FOR HOT WATER & RETURN PIPING SHALL BE 1" THICK. INSTALL SADLES AS REQUIRED IN ALL LOCATIONS TO PREVENT COMPRESSION OF INSULATION.

14. ALL BRANCH LINES SHALL HAVE SHUT-OFF VALVES. ALL DOMESTIC WATER BALL VALVES SHALL BE BRASS BODY, FULL PORT, CHROME PLATED BALL. TEFLON SEATS 150 # WSP, FOR SIZES 1/2" THRU 2". PROVIDE VALVE HANDLE EXTENSIONS AS REQUIRED FOR INSULATION.

15. ALL SANITARY SEWER PIPING SHOWN IS BELOW SLAB/WITHIN WALLS UNLESS NOTED OTHERWISE. ALL SANITARY VENT PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.

16. ALL WASTE AND VENT PIPING SHALL BE SCHEDULE 40 PVC-DWV CONFORMING TO ASTM D 2665. ALL JOINTS SHALL BE SOLVENT WELDED TYPE CONFORMING TO ASTM D 2665/2949/3034, ASTM F 891, CSA B182.2,CSA CAN/CSA-B182.4

17. VENT LINES SHALL SLOPE UP TO VTR.

18. ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY NC PLUMBING CODE AND MANUFACTURERS RECOMMENDATIONS.

19. ALL PIPING PENETRATIONS THRU NEW AND EXISTING WALLS SHALL BE SEALED TO EQUAL RATING OF THE NEW/EXISTING WALL.

20. PROVIDE CHROME-PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH FINISHED WALLS, CEILINGS, OR FLOORS.

21. ALL PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED PER N.C. PLUMBING CODE.

22. THE PLUMBING CONTRACTOR SHALL COORDINATE ALL UNDER SLAB PIPING WITH ALL STRUCTURAL FOUNDATIONS, P.C. SHALL COORDINATE ALL UNDER SLAB PLUMBING WITH ELEVATION INVERTS WITH THE SITE UTILITY INVERTS.

23. ALL EXPOSED WATER SUPPLY AND WASTE LINES UNDER OPEN SINKS/LAVATORIES SHALL HAVE PROTECTIVE DEVICES INSTALLED TO MEET LATEST NCSBC AND ADA REQUIREMENTS.

24. THE ENTIRE PLUMBING SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH NC PLUMBING CODE.

25. ROOF DECKING SHALL NOT BE PENETRATED TO SUPPORT WASTE LINES, VENT LINES, AND WATER SUPPLY LINES.

26. WATER HEATERS SHALL COMPLY WITH N.C ENERGY CODE SECTION 504 OF THE NC BUILDING CODE.

27. WATER CLOSETS SHALL BE MOUNTED ON CAST IRON FLANGES.

28. CLEANOUTS & FLOOR DRAIN STRAINERS SHALL BE INSTALLED FLUSH WITH FINISH FLOOR ELEVATION. FLOOR DRAINS SHALL BE INSTALLED TO PROVIDE PROPER DRAINAGE OF SPACE.

29. ALL FLOOR DRAINS, HUB DRAINS, AND FLOOR SINKS SHALL HAVE TRAP PRIMERS OR HOSE BIBBS, INSTALLED AS SPECIFIED IN THE N.C. PLUMBING CODE SECTION 412.6.

30. P.C. SHALL VERIFY AND SET THE MAXIMUM OUTLET TEMPERATURES AT ALL NON-COMMERCIAL KITCHEN EQUIPMENT INCLUDING HAND SINKS LOCATED IN THE KITCHEN TO NOT EXCEED 120°F BY INSTALLATION OF POINT OF USE ANTI-SCALD MIXING VALVES IF NECESSARY.

31. ALL ACCESS COVERS INCLUDING BUT NOT LIMITED TO IN-GRADE CLEANOUTS, MANHOLES, AND WATER METER BOXES SHALL BE FLUSH WITH FINISHED GRADE UNLESS OTHERWISE SPECIFIED

32. ALL VERTICAL WASTE STACKS SERVING MULTI-STORY BUILDINGS OR DWELLINGS SHALL BE CONSTRUCTED OF CAST IRON PIPE CONFORMING TO ASTM A 74, ASTM A 888, CISPI 301. JOIN CAST IRON WASTE STACKS TO HORIZONTAL PVC WASTE PIPING USING APPROPRIATE FITTINGS MEETING CORRESPONDING ASTM STANDARDS.

33. P.C. SHALL PROTECT ALL PLUMBING PIPE AS IT COMES UP THROUGH CONCRETE PER SECTION 305.1 OF THE N.C. PLUMBING CODE.

34. ALL PLUMBING CONSTRUCTION PENETRATING FIRE-RATED SURFACES AND NON-RATED PARTITIONS SHALL BE SEALED PER FIRE STOPPING DETAIL ON SHEET FP-001 OR THE LATEST EDITION OF THE UL FIRE RESISTANCE DIRECTORY, VOLUME 2.

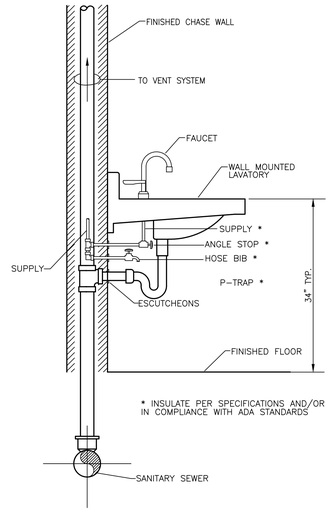
35. PLUMBING CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL EXTERNAL DISCONNECTS THAT ARE REQUIRED FOR EQUIPMENT PROVIDED UNDER THIS CONTRACT. PLUMBING CONTRACTOR SHALL FURNISH ALL REQUIRED FUSES FOR ALL FUSED DISCONNECT SWITCHES. COORDINATE DISCONNECT AND FUSE INSTALLATION WITH ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING DISCONNECT SWITCHES AND FUSES. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL LINE SIDE WIRING AND CONDUIT TO EXTERNALLY OR INTERNALLY MOUNTED DISCONNECTS AND SHALL PROVIDE AND INSTALL LOAD SIDE WIRING AND CONDUIT FROM EXTERNALLY MOUNTED DISCONNECT SWITCHES TO PLUMBING EQUIPMENT. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT PROVIDED BY THE PLUMBING CONTRACTOR. SEE "PLUMBING EQUIPMENT ELECTRICAL CONNECTION DETAIL".

36. ALL ELECTRICAL DISCONNECT SWITCHES PROVIDED BY THE PLUMBING CONTRACTOR SHALL BE "HEAVY DUTY".

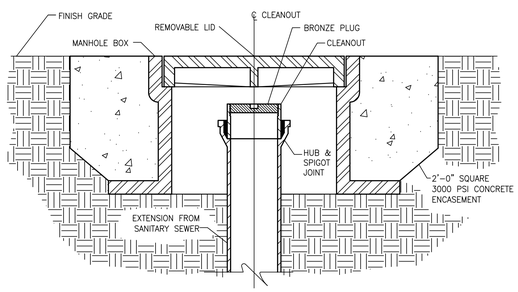
37. PLUMBING CONTRACTOR SHALL PROVIDE MARKING TAPE AND TRACER WIRE FOR ALL NONE METALLIC PIPING BELOW GRADE. TAPE SHALL BE AT LEAST 3" WIDE AND SHALL BE LABELED FOR THE SPECIFIC TYPE PIPE. TAPE SHALL BE 24" BELOW GRADE. TRACER WIRE SHALL BE INSTALLED ON NON-METALLIC SEWER PIPE AND SHALL MEET REQUIREMENTS OF SECTION 306.2.4. TRACE WIRE SHALL BE MINIMUM 14 AWG AND RATED FOR DIRECT BURIAL.

38. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL UNDERCOUNTER ACID DILUTION TRAPS ON ALL SINKS LOCATED IN SCIENCE CLASSROOMS AND SCIENCE PREP ROOMS IN EDUCATIONAL FACILITIES.

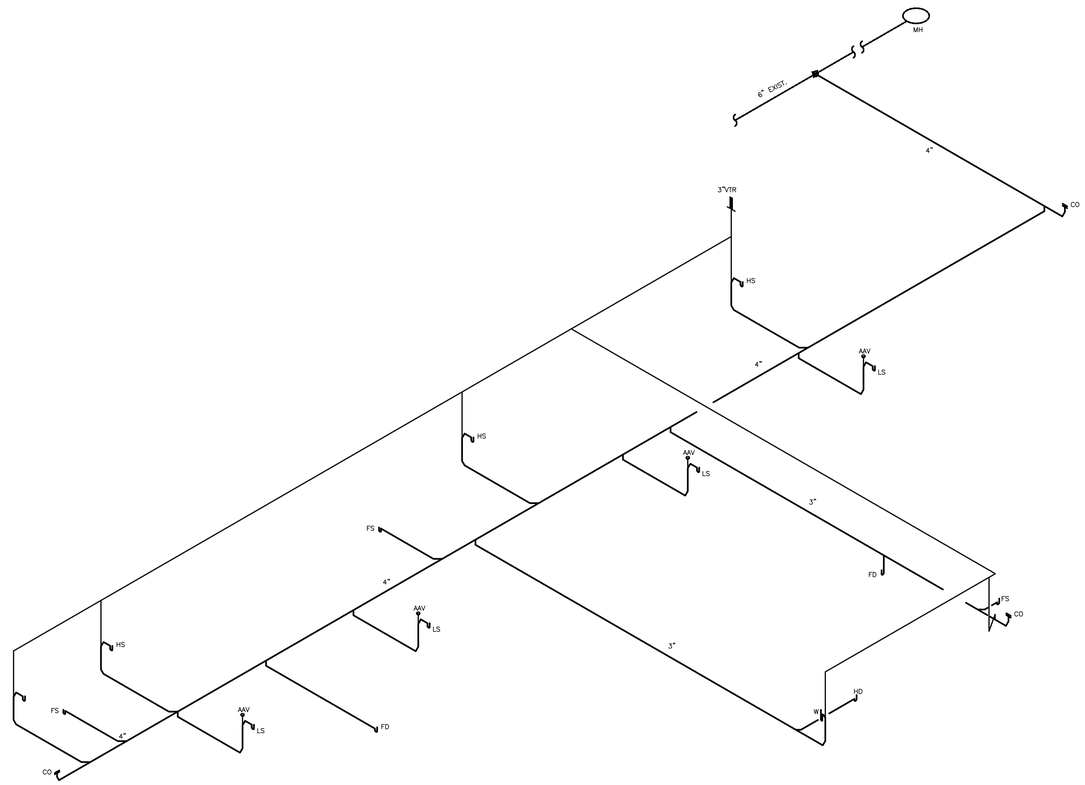
39. ALL PLUMBING FIXTURES THAT SUPPLY WATER FOR HUMAN CONSUMPTION (I.E. BEVERAGE DISPENSERS, ICE MACHINES, DRINKING FOUNTAINS, REFRIGERATORS WITH ICE MAKERS, ETC.) SHALL HAVE A BACKFLOW DEVICE IN ACCORDANCE WITH SECTION 608.16 OF THE 2018 NC PLUMBING CODE.



HAND SINK - WALL MOUNTED
SCALE: N.T.S.



CLEANOUT
SCALE: (IN GRADE)



001.1 FOOD LAB DWV RISER DIAGRAM
SCALE: NTS

FIXTURE UNIT REQUIREMENTS	
POTABLE WATER SUPPLY	29.4 GPM USE 1-1/2" SERVICE
WASTE	47 FU USE 4" SERVICE

GAS WATER HEATER SCHEDULE								
TAG	LOCATION	CAP	BTUH	TEMP	RCVY @ 100' RISE	MFR / MODEL no.	ELECT'L	NOTES
IGWH-1	FOODS LAB 303 EXTERIOR WALL	-	199,000	140	200 GPH	RINNAI No. CU199e	120V 1# 4.0A (10A MOCP)	1,3,4,5
IGWH-2	FOODS LAB 303 EXTERIOR WALL	-	199,000	140	200 GPH	RINNAI No. CU199e	120V 1# 4.0A (10A MOCP)	1,3,4,5

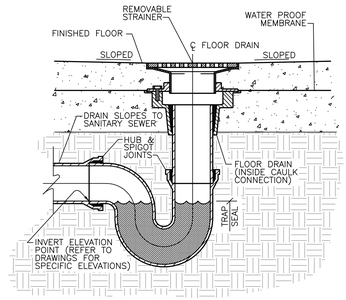
NOTES:
1) STATE INDUSTRIES, LOCHINVAR, OR RHEEM/RUUD MEETING OR EXCEEDING SPECIFICATIONS ARE ACCEPTABLE SUBSTITUTES
2) PROVIDE BRONZE BODY RECIRCULATION PUMP RATED FOR 8 GPM @ 10' HEAD, 1/12 hp, 115V; B&G No. LR-15B OR EQUAL BY TACO OR ARMSTRONG.
3) PROVIDE GWH WITH FLUE VENT PIPING TO EXTERIOR. COORD. WITH MECH. EQUIP OA INTAKES
4) SEE DETAIL FOR ACCESSORIES
5) WATER HEATER SHALL COMPLY WITH SECTION C404 OF THE NORTH CAROLINA ENERGY CODE.

ABBREVIATIONS:
CAP = STORAGE CAPACITY (gal)
ELEMENT = (qty) WATTAGE
TEMP = HW OUTPUT TEMPERATURE (deg F)
RCVY = RECOVERY @ 100 deg F RISE (gph)
POU = POINT OF USE WATER HEATER

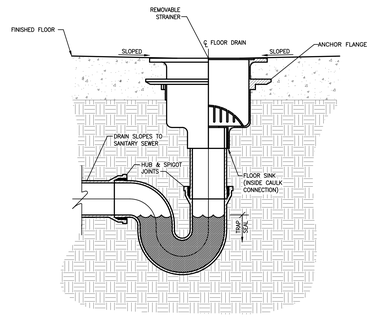
PLUMBING FIXTURE SCHEDULE

ITEM	DESCRIPTION	FINISH	COLD	HOT	VENT	WASTE	ADA
LAV	LAVATORY - KOHLER "HUDSON" WALL HUNG LAVATORY MODEL NO. K-2867 ENAMELD CAST IRON	WHITE	-	-	1 1/2"	2"	YES
	FAUCET - MOEN NO. 8862 TWO-HANDLE METERING OR EQUAL BY KOHLER	CHROME	1/2"	1/2"			YES
	TRUEBRO HANDI LAV-GUARD INSULATION KIT M# 102W (OR EQUAL FROM MANUFACTURERS SPECIFICATIONS).	WHITE					
ART	2 COMPARTMENT STAINLESS SINK PROVIDED BY G.C.	BY ARCH.					
	(OR EQUAL PRODUCT FROM MANUFACTURERS IN SPECIFICATION)					2"	
FD	FLOOR DRAIN - ZURN M# ZN415B WITH TYPE "B" STRAINER	NICK-BRNZ					
	(OR EQUAL PRODUCT FROM MANUFACTURERS IN SPECIFICATION)					3"	
HD	FLOOR DRAIN - ZURN M# ZN415 WITH FUNNEL STRAINER	NICK-BRNZ					
	(OR EQUAL PRODUCT FROM MANUFACTURERS IN SPECIFICATION)					3"	
FS	FLOOR SINK - PVC CONSTRUCTION WITH FULL GRATE ZURN FD2370-PV4-F	NICK-BRNZ					
	PROVIDE ALL FLOOR DRAINS WITH AUTOMATIC TRAP PRIMER					3"	
CO	CLEAN-OUT IN FLOOR - ZURN MODEL # ZN-1444-BP WITH INSIDE CAULK CONNECTION	BRONZE				3"	
	(OR EQUAL PRODUCT FROM MANUFACTURERS IN SPECIFICATIONS)						

*MODEL NUMBERS ARE PROVIDED TO ESTABLISH A LEVEL OF QUALITY. EQUAL QUALITY PRODUCTS ARE ACCEPTABLE.



FLOOR DRAIN
SCALE: N.T.S.



FLOOR SINK
SCALE: NTS

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ES Project No: ES24029
NORTH CAROLINA PROFESSIONAL SEAL 021083 ENGINEER D. WILSON DULL
02/26/24

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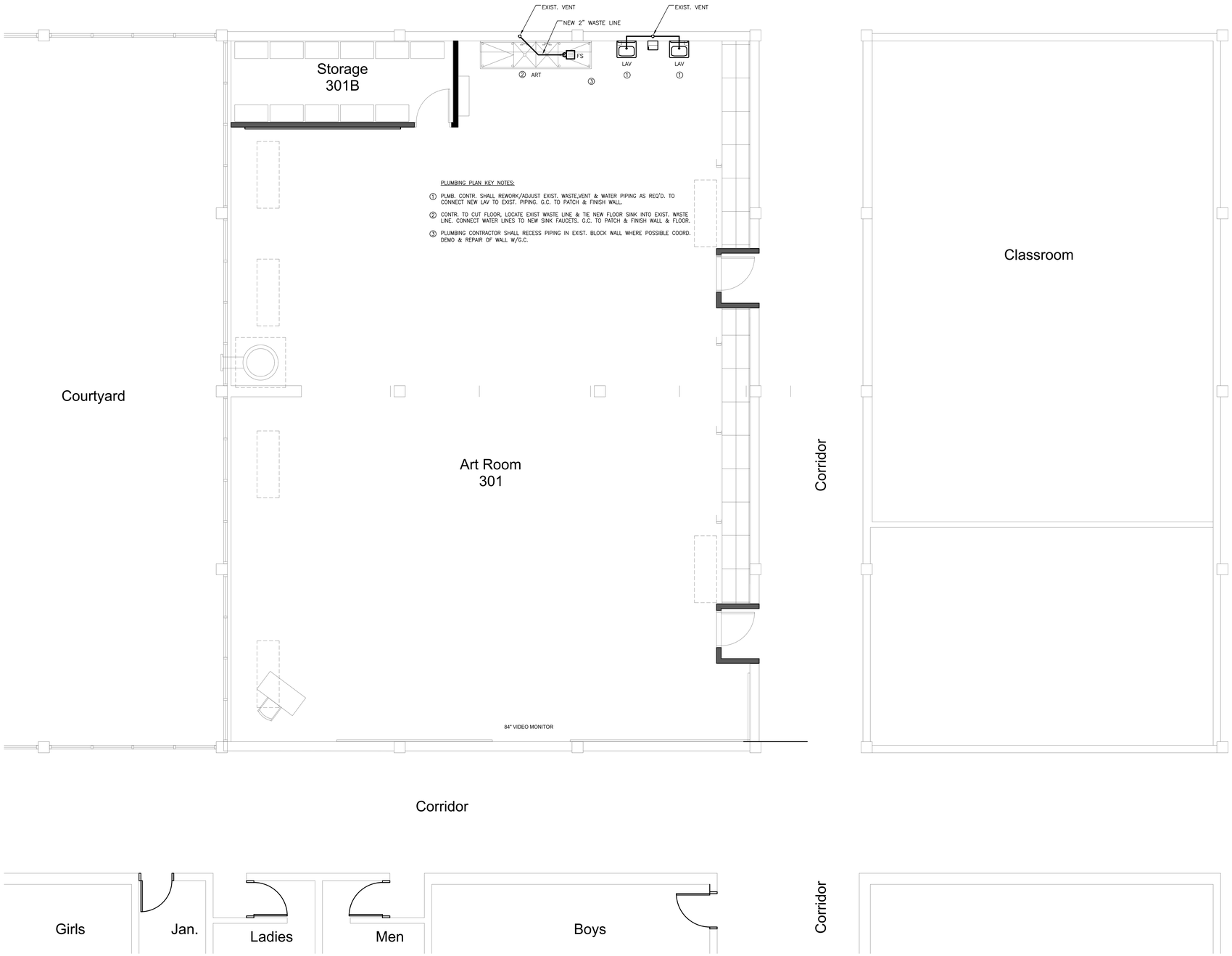


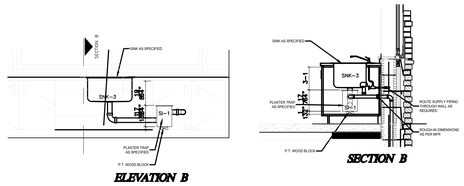
PLUMBING PLAN KEY NOTES:

① PLMB. CONTR. SHALL REWORK/ADJUST EXIST. WASTE,VENT & WATER PIPING AS REQ'D. TO CONNECT NEW LAV TO EXIST. PIPING. G.C. TO PATCH & FINISH WALL.

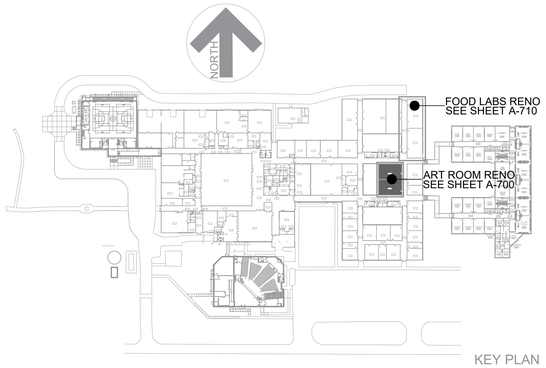
② CONTR. TO CUT FLOOR, LOCATE EXIST WASTE LINE & TIE NEW FLOOR SINK INTO EXIST. WASTE LINE. CONNECT WATER LINES TO NEW SINK FAUCETS. G.C. TO PATCH & FINISH WALL & FLOOR.

③ PLUMBING CONTRACTOR SHALL RECESS PIPING IN EXIST. BLOCK WALL WHERE POSSIBLE COORD. DEMO & REPAIR OF WALL W/G.C.

701.1 ART ROOM PLUMBING PLAN
SCALE: 1/4" = 1'-0"



701.2 ART ROOM PLASTER TRAP INSTALLATION DETAIL
SCALE: N.T.S.



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No.	Date	Revision

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2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333
HITE ASSOCIATES, P.C. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA GREENVILLE
LICENSE NUMBER 4118

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. P 701

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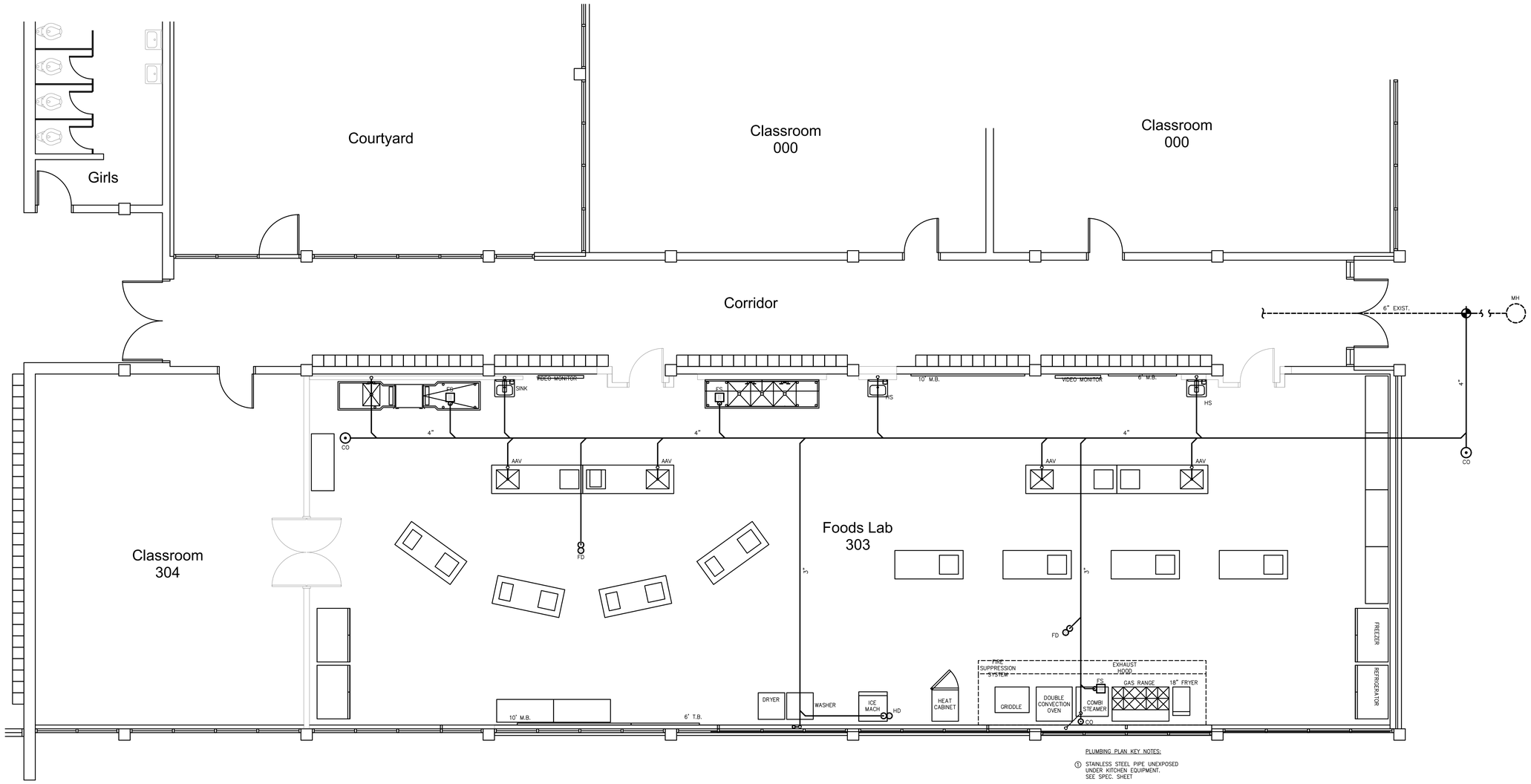
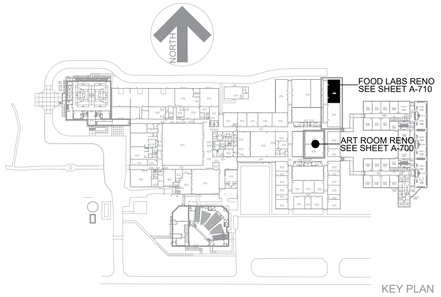


PLUMBING PLAN KEY NOTES:

1. STAINLESS STEEL PIPE UNEXPOSED UNDER KITCHEN EQUIPMENT. SEE SPEC. SHEET

711.1 FOOD LAB SANITARY SEWER PLAN

SCALE: 1/4" = 1'-0"



KEY PLAN

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111

Date: 26 AUGUST, 2024

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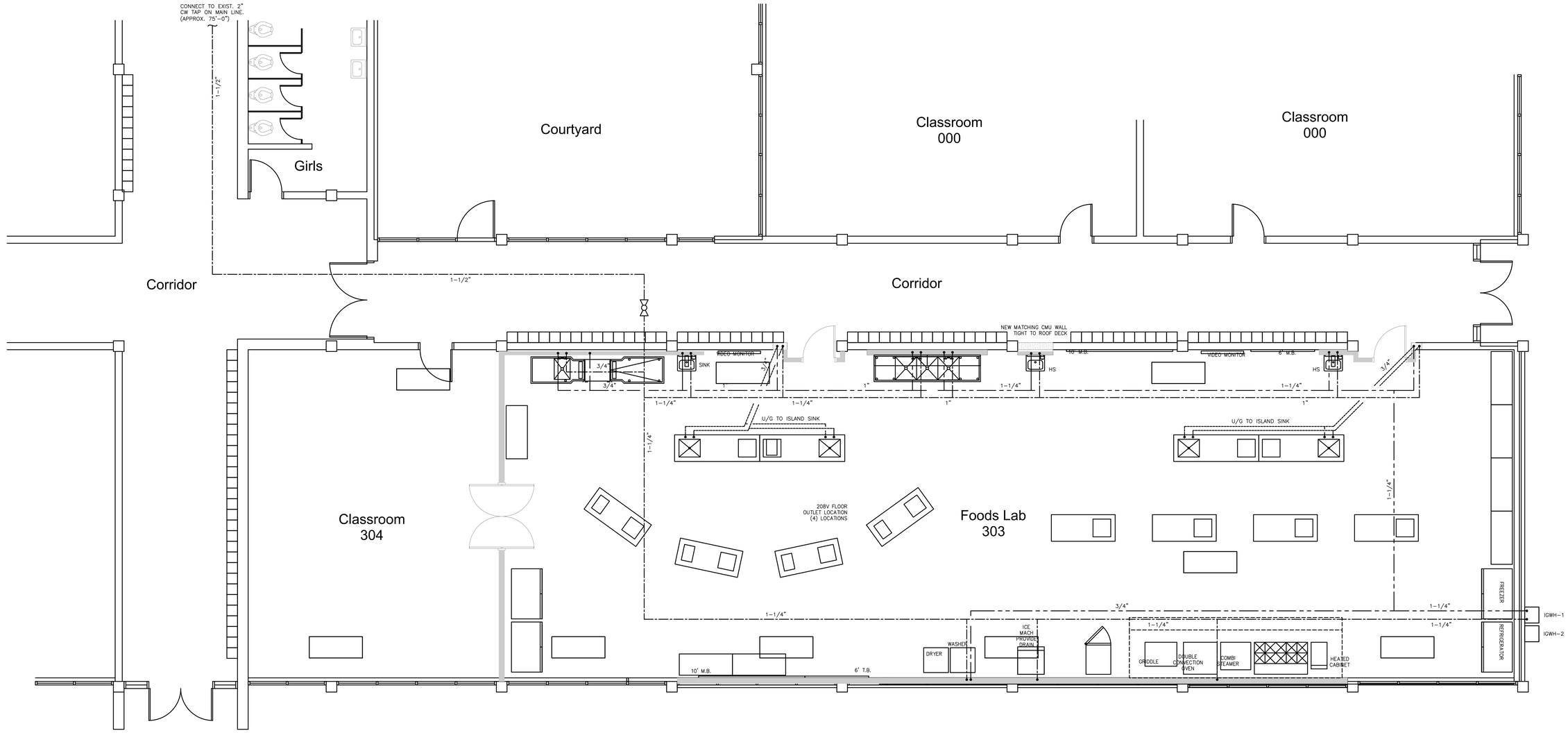
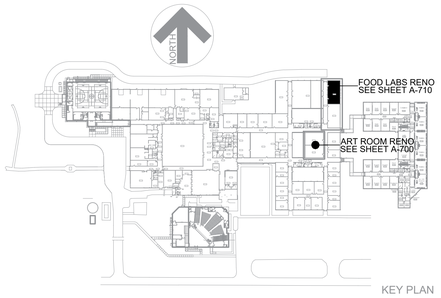


712.1 FOOD LAB POTABLE WATER PLAN

SCALE: 1/4" = 1'-0"



KEY PLAN

No.	Date	Revision

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111

Date: 26 AUGUST, 2024

Drawing no. P 712

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MECHANICAL GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, PLUMBING, & ELECTRICAL DRAWINGS, AND SPECIFICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID.

2. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE NC BUILDING CODE & CONTRACTOR. SHALL NOTIFY ENGINEER IN WRITING REGARDING ANY CODE DISCREPANCIES FOUND ON PLANS. CONTRACTOR. IS RESPONSIBLE FOR PERMITS, INSPECTIONS AND FEES. THE CONTROLS CONTRACTOR (C.C.) SHALL PROVIDE ALL CONTROL VALVES, ACTUATORS, DAMPERS, FAN COIL COMBINATION STARTERS. C.C. SHALL PROVIDE ALL LOAD SIDE WIRING ASSOCIATED WITH ALL FAN COIL COMBINATION STARTERS. VALVE TAGS AND LABELING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR (M.C.).

3. DO NOT SCALE THESE DRAWINGS; REFER TO LARGEST SCALE ARCHITECTURAL DRAWINGS. THESE DRAWINGS ARE DIAGRAMMATIC ONLY & ARE NOT INTENDED TO SHOW MINOR DETAILS & EXACT LOCATIONS. DESIGN ADJUSTMENTS SHALL BE ANTICIPATED BY THE CONTRACTORS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

4. "PROVIDE" IS DEFINED AS FURNISH & INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.

5. THE MECHANICAL & CONTROLS CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HVAC EQUIPMENT & CONTROLS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION TO AVOID CONFLICT. CONTACT ARCHITECT IF ALTERNATE INSTALLATION METHOD IS REQUIRED.

6. SYSTEMS INDICATED ON PLANS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL EXAMINE SITE CONDITIONS PRIOR TO DUCT CONSTRUCTION AND COORDINATE INSTALLATION WITH OTHER TRADES. CONTRACTOR SHALL PROVIDE NECESSARY HANGERS, FASTENERS ETC. TO PROVIDE A COMPLETE AND WORKING SYSTEM.

7. CONTRACTOR SHALL SEAL ALL DUCTWORK WITH A PAINT ON MASTIC. ALL WALL PENETRATIONS SHALL BE SEALED AIR TIGHT.

8. CONTRACTOR SHALL COORDINATE ALL DUCTWORK, DIFFUSER AND GRILLE LOCATION WITH OTHER CEILING MOUNTED DEVICES SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN.

9. CONTRACTOR SHALL INSTALL BALANCING DAMPERS IN EACH BRANCH DUCT TO PROVIDE PROPER AIRFLOW TO EACH ZONE.

10. LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 4'-0" A.F.F. (CENTER OF BOX FOR GYP BRD, TOP OF BOX FOR MASONRY) IN LOCATIONS INDICATED ON PLANS.

11. ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.

12. CONTRACTOR SHALL COORDINATE ALL ROOF AND FLOOR PENETRATION LOCATIONS AND SIZES.

13. FABRICATE AND INSTALL ALL DUCT WORK PER SMACNA 1.5" W.C. PRESSURE. ALL ELBOWS SHALL HAVE 1.5R CENTERLINE. ALL DUCT UNDER SLAB SHALL BE FIBERGLASS.

14. ALL DUCT WORK SHALL BE SUPPORTED WITH METAL STRAPS AT LEAST 1" WIDE AND SHALL BE THE SAME GAUGE OR HEAVIER THAN THE DUCT. STRAPPING SHOULD BE SPACED AT NO MORE THAN 64" APART AND SHALL BE SECURELY FASTENED TO THE BUILDING STRUCTURE.

15. SUSPEND ALL CEILING MOUNT AIR DISTRIBUTION DEVICES FROM STRUCTURE WITH 12 GA. WIRE. ALL HANGERS AND SUPPORTS TO BE INSTALLED PRIOR TO FIREPROOFING OF ROOF STRUCTURE.

16. ALL FLEXIBLE ROUND DUCT SHALL BE PRE-INSULATED DOUBLE WALLED WITH SPIRAL METAL RIB, AND SHALL HAVE MIN. RESISTANCE VALUE OF R-6. MAXIMUM LENGTH SHALL BE 10'-0" UNLESS SHOWN SPECIFICALLY OTHERWISE IN PLAN. SECURE ENDS WITH NYLON BANDS AND TAPE.

17. ALL SUPPLY AND RETURN DUCT SHALL BE INSULATED WITH A MINIMUM OF 2-3/16" 3/4 LB. OR 2" OF 1.0 LB. DENSITY FIBERGLASS WRAP. INSULATED DOUBLE WALLED SPIRAL DUCT SHALL HAVE A MINIMUM INSULATION THICKNESS OF 2" OF 1.5 LB. DENSITY. PIPING INSULATION (REFRIGERANT OR WATER) SHALL BE A MINIMUM OF 1-1/2" THICK OR PER LATEST NC ENERGY CODE, WHICHEVER IS GREATER.

18. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALUMINUM JACKET PROTECTIVE COVERING FOR ALL REFRIGERANT PIPE INSULATION INSTALLED ON THE BUILDING EXTERIOR.

19. CABLE TRAY HAS RIGHT-OF-WAY OVER DUCTWORK; SEE ELECTRICAL DRAWINGS FOR LOCATION.

20. SIDEWALL SUPPLY REGISTERS AND RETURN GRILLES ARE TO BE INSTALLED PLUMB AND LEVEL ALONG A COMMON ELEVATION. INSULATE BACK OF ALL LAY-IN CEILING SUPPLY REGISTERS AND DIFFUSERS.

21. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN CONNECTIONS TO HVAC UNITS.

22. PROVIDE AUXILIARY CONDENSATE DRAIN PAN FOR ALL AIR HANDLING UNITS, FAN COIL UNITS, FURNACE WITH COOLING COIL, ETC. CONTRACTOR SHALL PROVIDE AND INSTALL WATER LEVEL FLOAT SWITCH IN AUXILIARY DRAIN PAN. FLOAT SWITCH SHALL SHUT DOWN INDOOR AND ASSOCIATED OUTDOOR UNIT WHEN ACTIVATED.

23. CONDENSATE PIPE SHALL BE SCHEDULE 40 PVC OR HARD DRAWN COPPER. INSTALL WITH PROPER SLOPE AND NO SAGS. COPPER PIPE SHALL BE INSULATED WITH 1/2" THICK CLOSED CELL INSULATION. SCHEDULE 40 PVC PIPE SHALL BE INSULATED WITH 1/2" THICK CLOSED CELL INSULATION.

24. ALL DUCTWORK AND PIPING SHALL BE CONCEALED ABOVE CEILINGS, TRUSSES AND SOFFITS EXCEPT IN MECHANICAL ROOMS, UTILITY PLATFORMS, AREAS WITH EXPOSED STRUCTURE (NO CEILINGS), AND WHERE NOTED OTHERWISE.

25. CONTROLS CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL WIRING AND CONNECTIONS TO MECHANICAL EQUIPMENT.

26. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL EXTERNAL DISCONNECTS THAT ARE REQUIRED FOR EQUIPMENT PROVIDED UNDER THIS CONTRACT. MECHANICAL CONTRACTOR SHALL FURNISH ALL REQUIRED FUSES FOR ALL FUSED DISCONNECT SWITCHES. COORDINATE DISCONNECT AND FUSE INSTALLATION WITH ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING DISCONNECT SWITCHES AND FUSES. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL LINE SIDE WIRING AND CONDUIT TO EXTERNALLY OR INTERNALLY MOUNTED DISCONNECTS AND SHALL PROVIDE AND INSTALL LOAD SIDE WIRING AND CONDUIT FROM EXTERNALLY MOUNTED DISCONNECT SWITCHES TO MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR. SEE "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION DETAIL".

27. ALL ELECTRICAL DISCONNECT SWITCHES PROVIDED BY THE MECHANICAL CONTRACTOR SHALL BE "HEAVY DUTY".

28. ALL EXPOSED GAS PIPE AS SHOWN (INTERIOR OR EXTERIOR) SHALL BE SCHEDULE 40 BLACK STEEL PAINTED OSHA YELLOW OR YELLOW FLEXIBLE STAINLESS STEEL. ALL GAS PIPING SHALL BE LABELED WITH THE TYPE OF GAS AND SUPPLY PRESSURE. GAS PIPING CONCEALED IN WALL CAVITY SHALL NOT BE REQUIRED TO BE PAINTED YELLOW. CONTRACTOR SHALL INSTALL GAS PIPE PER INSTALLATION STANDARD MSS SP-58. M.C. SHALL PROVIDE MAPA PRODUCTS PIPE SUPPORTS WITH E-6000 ADHESIVE OR APPROVED EQUALS.

29. MINIMUM GAS PIPING SIZE SHALL BE 3/4" FOR ALL BRANCH LINES. CONTRACTOR SHALL REDUCE TO SMALLER SIZES AT GAS FIRED EQUIPMENT, AS REQUIRED, FOR CONNECTION TO EQUIPMENT.

30. GAS PIPE SIZES INDICATED ON PLANS ARE MINIMUM ALLOWABLE SIZES. CONTRACTOR MAY USE LARGER SIZES THAN INDICATED.

31. MECHANICAL CONTRACTOR MAY USE ROUND DUCT OF EQUIV. AREA IN LIEU OF RECTANGULAR. COOR'D. ROUND DUCT SIZES W/ ENGINEER. USE INSULATED DOUBLE WALLED SPIRAL DUCT WITH PAINT GRIP FINISH WHERE DUCT IS TO BE EXPOSED.

32. MECHANICAL CONTRACTOR SHALL PROVIDE ENGR. WITH AN AIR BALANCE REPORT INDICATING INITIAL AND FINAL READINGS AT EACH DIFFUSER AND TOTAL CFM PER UNIT. INCLUDE IN DOCUMENTS PROVIDED TO OWNER AT JOB CLOSEOUT.

33. MECHANICAL CONTRACTOR SHALL LABEL ALL EQUIPMENT WITH ENGRAVED PLASTIC LAMINATE, SCREWED TO PIECE OF EQUIPMENT.

34. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL CO & NO SENSOR FOR ALL GAS FIRED EQUIPMENT.

35. M.C. SHALL COORDINATE ALL EXTERIOR MECHANICAL EQUIPMENT LOCATIONS WITH G.C. PRIOR TO INSTALLATION AND SHALL PROVIDE 3'-0" MIN. SERVICE CLEARANCE OR MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS GREATER, BETWEEN ALL MECHANICAL EQUIPMENT AND ALL OBSTRUCTIONS. IF THERE ARE MECHANICAL ENCLOSURES OR FENCING, M.C. SHALL COORDINATE THE SIZES AND CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL AND PROVIDE 3'-0" MIN. CLEARANCE OR MANUFACTURER'S RECOMMENDED CLEARANCES, WHICHEVER IS GREATER. M.C. SHALL VERIFY AND COORDINATE THAT FENCING BEING PROVIDED BY G.C. IS APPROVED FOR OPERATION WITH THE MECHANICAL EQUIPMENT MANUFACTURER. FENCING AND CLEARANCE DIMENSIONS SHOWN ON THESE PLANS ARE DIAGRAMMATIC ONLY. IF CHANGES TO FENCE SIZES AND UNIT CLEARANCES ARE NEEDED, THE M.C. SHALL BE RESPONSIBLE FOR NOTIFYING THE G.C. AND THE ENGINEER/ARCHITECT.

36. UNIT CONTROLLER OR PROGRAMMABLE THERMOSTAT SHALL HAVE 7 DAY PROGRAMING, TIMED OVER-RIDE AND THE ABILITY TO RUN FANS IN OCCUP. MODE & CYCLE FANS IN UN-OCCUP. MODE.

37. THE M.C. & C.C. SHALL PROTECT EQUIPMENT DURING CONSTRUCTION & BRAZING AS REQ'D. CLEAN ALL EQUIP. SURFACES OF GREASE, DIRT, DUST, & OTHER FOREIGN MATERIALS PRIOR TO PROJECT CLOSEOUT.

38. MECHANICAL CONTRACTOR SHALL CHANGE UNIT FILTERS AFTER EACH TWO WEEKS OF RUN TIME, AND SHALL LEAVE ONE CHANGE OF FILTERS FOR OWNER TO USE FOR NEXT FILTER CHANGE.

39. MECHANICAL CONTRACTOR SHALL NOT ALLOW DUCTWORK TO CONTACT LAY-IN LIGHT FIXTURES. ROUTE ACCORDINGLY.

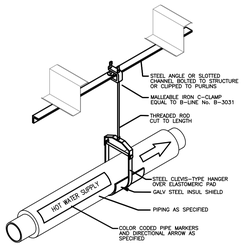
FAN COIL EQUIPMENT SCHEDULE

SYSTEM		AIR DATA		COOLING DATA								HEATING DATA								MOTOR DATA					EQUIPMENT DATA				
TAG	ZONE	CFM	OA	TCL	SC	EATdb	LATdb	ΔTwb	GPM	LWT	CONN	PD	CFM	HEAT	EAT	LAT	LWT	GPM	CONN	PD	ESP	HP	MCA	MOCP	ELECT	DESCRIPTION	MFR./MODEL NO.	ROWS	NOTES	WEIGHT
FC-304A	CLASSROOM 304	800	0	24	16.5	74.0	55.0	19.0	5	51.6	1"	10	600	22.1	71.0	105.0	162.3	2.5	1"	10	0	0.3	6.07	15	115/1ϕ	HORIZONTAL FAN COIL	TRANE/FCDB100	4/1	1-2,4-11	218 LBS
FC-304B	CLASSROOM 304	800	0	24	16.5	74.0	55.0	19.0	5	51.6	1"	10	600	22.1	71.0	105.0	162.3	2.5	1"	10	0	0.3	6.07	15	115/1ϕ	HORIZONTAL FAN COIL	TRANE/FCDB100	4/1	1-2,4-11	218 LBS

NOTES:
1) TOTAL COOLING LOAD, SENSIBLE COOLING LOAD, AND HEATING LOAD UNITS ARE MBtuH. COOLING LOADS INCLUDES VENTILATION, HEAT FAN, & PLENUM HEAT GAIN DURING NON-SIMULTANEOUS PEAK OPERATION w/o INCLUSION OF ZONE DIVERSITY. EXTERIOR DESIGN CONDITIONS: WINTER DRY BULB = 18°F; SUMMER DRY BULB = 93°F; MEAN COINCIDENT WET BULB = 75°F
2) REFERENCE SPECIFICATION SECTIONS 15857 FOR EQUIPMENT AND ACCESSORIES.
3) M.C. SHALL PROVIDE UNIT WITH COMBINATION STARTER WITH INTEGRAL DISCONNECT. SEE ALSO EQUIPMENT INSTALLATION DETAILS FOR ACCESSORIES, OPTIONS, ETC.
4) CHILLED WATER: EWT = 42.0 F, LWT = 52.0
5) HOT WATER: EWT = 180.0 F, LWT = 160.0 F (INSTALL IN REHEAT POSITION)
6) CONTRACTOR RESPONSIBLE FOR LEFT OR RIGHT HAND MOTOR/BLOWER ASS'Y SELECTION
7) BLOWER COIL UNITS, FAN COIL UNITS, & UNIT VENTILATORS; CHILLED WATER VALVES PROVIDED AS MODULATING, HOT WATER VALVES PROVIDED AS MODULATING FOR RE-HEAT. VALVES SHALL BE 3-WAY VALVES.
8) CONTROLS CONTRACTOR SHALL PROVIDE FAN STATUS INPUTS WITH ALL BLOWER COILS, FAN COILS, AND UNIT VENTILATORS.
9) SEE FORM OF PROPOSAL FOR ALTERNATE BIDS.
10) PROVIDE UNIT WITH INTERNAL FLOAT SAFETY SWITCH ON MANUFACTURER'S INTERNAL CONDENSATE DRAIN PAN. FLOAT SWITCH SHALL SHUT DOWN UNIT FAN AND CLOSE HYDRONIC VALVES UPON ACTIVATION.

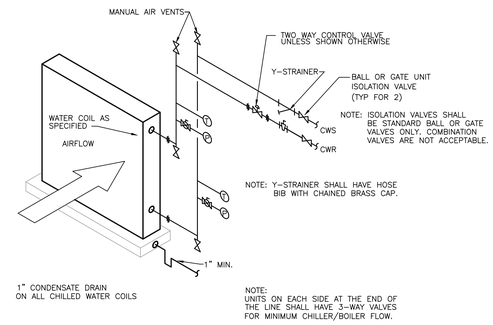
ABBREVIATIONS:
SYS = SYSTEM
TCL = TOTAL COOLING LOAD (MBtuH)
SC = SENSIBLE COOLING (MBtuH)
HEAT= HEAT LOAD (MBtuH)
GPM = GALLONS PER MINUTE
CONN = PIPE SIZE (in.) / SEE MANUF. FOR FINAL CONN SIZE
RLA = RATED LOAD AMPS
LRA = LOCKED ROTOR AMPS
FLA = FAN MOTOR FULL LOAD AMPS
CFM = CUBIC FOOT PER MINUTE
OA = OUTSIDE AIR (cfm)
MCA = MINIMUM CIRCUIT AMPACITY (AMPS)
PD = COIL MAXIMUM PRESSURE DROP (FT)

LATdb = LEAVING DRY BULB AIR TEMP (°F)
LATwb = LEAVING WET BULB AIR TEMP (°F)
EATdb = ENTERING DRY BULB AIR TEMP (°F)
EATwb = ENTERING WET BULB AIR TEMP. (°F)
FC = FAN COIL UNIT
AHU = AIR HANDLER UNIT
ESP = EXTERNAL STATIC PRESSURE (IN WG)
LWT = ESTIMATED LEAVING WATER TEMP (°F)
HP = AHU MFR STD MOTOR
ROWS = No. COIL ROWS C/HW
HORIZ.= HORIZONTAL UNIT POSITION
KW = POWER INPUT (WATTS X 1000)
1/6* = QUANTITY OF TWO



SUPPORT SPACING		
PIPE SIZE	SPACING	ROD
< 1"	6'-0"	1/4" DIA.
1 to 1.5"	8'-0"	3/8" DIA.
1.5" to 2"	10'-0"	3/8" DIA.
2.5" to 3.5"	12'-0"	1/2" DIA.
4" & 5"	12'-0"	5/8" DIA.
6"	12'-0"	3/4" DIA.

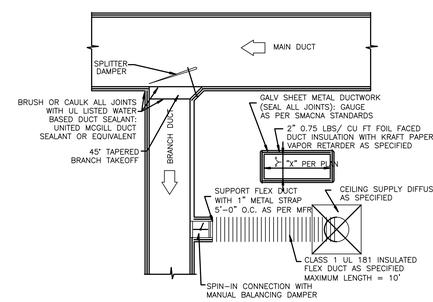
001.4 HYDRONIC PIPE HANGAR DETAIL
SCALE: N.T.S.



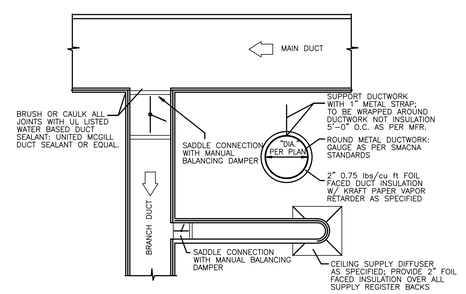
001.5 2-WAY VALVE COIL PIPING DETAIL
SCALE: N.T.S.

MECHANICAL LEGEND

G.C.	GEN. CONTR.
E.C.	ELEC. CONTR.
P.C.	PLUMB. CONTR.
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
18x16	WRAPPED RIGID DUCT
	INSULATED FLEXIBLE DUCT
	SUPPLY DIFFUSER
	RETURN AIR GRILLE
	CEILING EXHAUST GRILLE OR FAN
T AHU-1	THERMOSTAT & UNIT SERVED.
H AHU-1	HUMIDISTAT & UNIT SERVED.
A-400	DIFFUSER TYPE-CFM
MD	MANUAL DAMPER
S	DUCT MOUNTED SMOKE DETECTOR
SD	CEILING MOUNTED SMOKE DETECTOR
	FIRE ALARM HORN/STROBE (SEE GENERAL NOTES)
	CONN. TO EXIST.
G	GAS PIPING
FD	SPRING LOADED FIRE DAMPER
C AHU-1	CO2 SENSOR (800 PPM) & UNIT SERVED.
$T	TWIST TIMER SWITCH
M	120V MOTORIZED DAMPER
CO AHU-1	CO SENSOR & UNIT SERVED.
CN AHU-1	CO & NO SENSOR & UNIT SERVED. CONSPEC CN50-CON02



001.3 RECT. DUCT CONSTRUCTION
SCALE: N.T.S.



001.1 ROUND DUCT CONSTRUCTION
SCALE: N.T.S.

CLASSROOM FAN COIL CONTROL SEQUENCE:

START/STOP: Building Management System (BMS) shall index fan coils on during School's specified occupied periods to run continuously. The Fan Coil units will be indexed by zones with each building unit being a zone for start/stop and timed override operation. Timed override operation will be programmed and indexed through the County's BMS system.

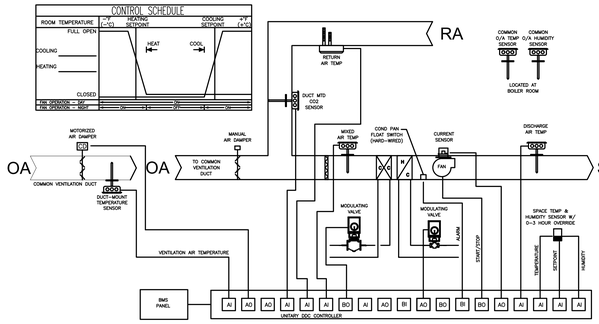
TEMPERATURE CONTROL: Each unit is provided with combination temp/humidity sensors w/temperature setpoint adjust capabilities and timed local over-ride in their respective zones. The EMS will monitor the supply air temperature. The space sensor controls, the modulating heating valve and the cooling valve to maintain temperature for scheduled hours and night setback setpoint after scheduled hours.

DEHUMIDIFICATION CYCLE: Upon the space temp being satisfied and sensing a humidity level above set point (60% RH) the supply air (SA) fan shall be set to heating CFM, the chilled water valve shall index open, and the hot water valve (coil in the re-heat position) shall modulate as required to maintain a 70°F discharge air temperature until space humidity falls below set point.

VENTILATION: Not applicable for this project.

SAFETIES: C.C. shall perform final connections to BMS system Controls contractor shall provide float cut-off switch in each primary drain pan to shut-down unit and place into alarm status. C.C. shall provide all fan coil unit switch and input to the BMS indicating fan status.

EXHAUST FANS: Index local exhaust fans as indicated on exhaust fan equipment schedule with FCUoperating schedule serving zone.



001.2 TYPICAL FAN COIL CONTROL DIAGRAM
SCALE: N.T.S.

ES Project No: ES24029
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Voice (252) 439-0338 • Fax (252) 439-0402 • Firm #C-1872
NORTH CAROLINA PROFESSIONAL SEAL 021961 ENGINEER D. WILSON DOLL
8/28/24

No.	Date	Revision

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M 001

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701.1 ART ROOM MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

MECHANICAL PLAN NOTES:

1. EXISTING FAN COIL UNIT TO BE RELOCATED TO NOT BE IN CONFLICT WITH NEW STORAGE ROOM WALL. CONTRACTOR SHALL REWORK HYDRONIC PIPING AS REQUIRED TO RECONNECT UNIT TO EXISTING HYDRONIC BRANCH PIPING. UNIT TO MOVE APPROXIMATELY 72" IN DIRECTION INDICATED. CONTRACTOR SHALL REWORK CONDENSATE PIPING TO CONNECT UNIT BACK TO EXISTING CONDENSATE DRAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXACT DIMENSIONS AND COORDINATE FINAL LOCATION WITH ALL OTHER TRADES.
2. EXISTING FAN COIL UNIT TO BE RELOCATED TO NOT BE IN CONFLICT WITH KILN EXHAUST HOOD. CONTRACTOR SHALL REWORK HYDRONIC PIPING AS REQUIRED TO RECONNECT UNIT TO EXISTING HYDRONIC BRANCH PIPING. UNIT TO MOVE APPROXIMATELY 30" IN DIRECTION INDICATED. CONTRACTOR SHALL REWORK CONDENSATE PIPING TO CONNECT UNIT BACK TO EXISTING CONDENSATE DRAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXACT DIMENSIONS AND COORDINATE FINAL LOCATION WITH ALL OTHER TRADES.
3. EXISTING FAN COIL UNIT TO BE RELOCATED IN THE DIRECTION INDICATED TO NOT BE IN CONFLICT WITH NEW INSET ENTRY DOOR, AS REQUIRED. CONTRACTOR SHALL REWORK HYDRONIC PIPING AS REQUIRED TO RECONNECT UNIT BACK TO EXISTING HYDRONIC BRANCH PIPING. CONTRACTOR SHALL REWORK CONDENSATE PIPING TO CONNECT UNIT BACK TO EXISTING CONDENSATE DRAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXACT DIMENSIONS AND COORDINATE FINAL LOCATION WITH ALL OTHER TRADES.
4. EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK TO BE REMOVED. CONTRACTOR TO SEAL EXTERIOR PENETRATIONS AFTER FAN REMOVAL.
5. EXISTING FAN COIL UNIT TO REMAIN.
6. EXISTING KILN TO BE RELOCATED AS INDICATED. PROVIDE AND INSTALL "ENVIROVENT 2" KIT AND "ENVIROLINK" KIT FROM KILN MANUFACTURER (SKUIT) AND INSTALL WALL CAP ON BUILDING EXTERIOR BELOW EXISTING WINDOWS. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
7. NEW CEILING MOUNTED EXHAUST GRILLE OVER KILN. INSTALL IN NEW ACOUSTIC TILE CEILING ABOVE KILN, AS INDICATED. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION. ROUTE EXHAUST DUCTWORK BACK TO EXISTING ROOF PENETRATION AND CONNECT TO NEW ROOF MOUNTED EXHAUST FAN.
8. EXISTING KILN EXHAUST HOOD ROOF PENETRATION. CONTRACTOR TO REMOVE EXISTING KILN HOOD AND EXHAUST FAN. INSTALL NEW ROOF MOUNTED EXHAUST FAN OVER EXISTING ROOF PENETRATION. CONTRACTOR SHALL PROVIDE NEW CURB OR MODIFY EXISTING CURB, AS REQUIRED, TO INSTALL NEW FAN.
9. ALL EXISTING AND NEW HVAC EQUIPMENT SHALL BE TIED BACK TO THE EXISTING CONTROLS SYSTEM. PROVIDE ANY EXPANSION CARDS, PROGRAMMING, CONTROLLER RELOCATION, UPGRADES, ETC. NECESSARY TO HAVE A COMPLETE AND OPERATIONAL SYSTEM AT PROJECT COMPLETION. CONTROLS CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS, CONTROLLERS AND COORDINATING NEW EQUIPMENT WITH MC TO MAKE SURE IT WILL SMOOTHLY INTEGRATE INTO THE EXISTING SYSTEM.

EXHAUST FAN VENTILATOR SCHEDULE

MARK	CFM	RPM	S.P.	ELECTRICAL			CONTROLS	MODEL NO./DESCRIPTION	WEIGHT	NOTES
				VOLTAGE	MCA	MOCP				
EF–A	300	1,045	0.250	115 V	1.9 A	15 A	LOCAL SWITCH	GREENHECK NO. CUE–090–VG DIRECT DRIVE UPBLAST CENTRIFUGAL ROOF EXHAUST FAN	30 LBS	1–4

NOTES:
(1) MODEL NUMBERS NOTED ARE GREENHECK EQUIPMENT, UNLESS OTHERWISE NOTED. EXHAUST FANS MEETING OR EXCEEDING PERFORMANCE DATA MANUFACTURED BY COOK OR CARNES ARE ACCEPTABLE SUBSTITUTES. ALL FANS SHALL HAVE UL LISTED LABELS AND OPTIONAL MOTOR COVERS.
(2) FURNISH AND INSTALL MFR'S SPEED CONTROLLER OR EQUIVALENT & ALL ACCESSORIES INDICATED ON DETAILS
(3) PROVIDE MANUFACTURER'S HOUSING w/ OSHA APPROVED MOTOR GUARD AND BACK DRAFT DAMPER.
(4) PROVIDE AND INSTALL MANUFACTURER'S ROOF CURB ADAPTER.

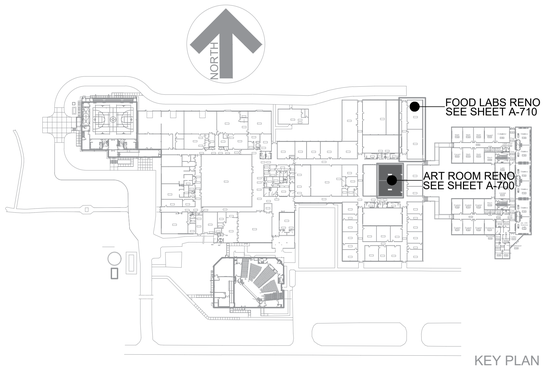
ABBREVIATIONS:
BDD: BACK DRAFT DAMPER
DPST: DOUBLE POLE SINGLE THROW SWITCH BY E.C.
CFM: AIR FLOW (cu ft/min)
NC : NOISE CRITERIA (sones)
EMS: ENERGY MANAGMENT SYSTEM

AIR DISTRIBUTION SCHEDULE

MARK	FACE SIZE	NECK SIZE	MFR/MODEL	CFM/FPM	NC	REMARKS
R1	24"x24"	12"x12"	PRICE/80TB	550/650	<20	LAY–IN EGG CRATE FACE RETURN WITH BLADES @ 1/2" O.C. ALUMINUM CONSTRUCTION

NOTES:
(1) ALL FINISHES TO BE WHITE EXCEPT WHERE NOTED.
(2) KRUEGER, METAL*AIRE, TUTTLE & BAILEY, TITUS & CARNES ARE CONSIDERED EQUIVALENTS.
(3) PROVIDE SQUARE TO ROUND TRANSITIONS WHERE REQUIRED.
(4) VALUES LISTED ARE MAXIMUM VALUES.

ABBREVIATIONS:
BDD: BACK DRAFT DAMPER
OBD: OPPOSED BLADE DAMPER
FPM: VELOCITY (ft/min)
NC : NOISE CRITERIA



KEY PLAN

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Web (252) 439-4338 * fax (252) 439-4482 * Rev (E-189)

No.	Date	Revision
1	9/18/24	ADDENDUM #1 – REMOVE ART ROOM KILN HOOD

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70 Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M 701

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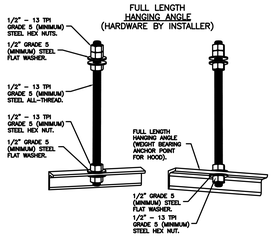
FOR QUESTIONS, CALL THE
Eastern North Carolina
REGION 36
PHONE: (919) 825-3566
EMAIL: reg36@captiveaire.com

HOOD INFORMATION – JOB#5392962

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW	SWITCHES QUANTITY	LOCATION
1		5424 VHB	CAPTIVEAIRE	4' 6"	700 DEG	II	N/A	250	1125			4"	14"	1125	1052	–0.171"	430 SS 100%	ALONE	ALONE	1 FAN	

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1							0									NO	174 LBS



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL–THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT–LBS.

EXHAUST FAN INFORMATION – JOB#5392962

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	WEIGHT (LBS)	SONES
1	KEF	1	SIF13DD	CAPTIVEAIRE	1125	0.500	1157	TEAO–ECM	0.750	0.2910	1	115	8.9	135	7.8

FAN OPTIONS

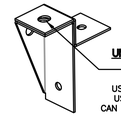
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF	1	SIF 13– SS LOW SP STRAIGHT DISCHARGE– SQUARE TO ROUND DISCHARGE ADAPTER
		1	SIF13 – INLET – STANDARD 14" DUCT CONNNECTION
		1	SIF – HORIZONTAL OVERHEAD MOUNT – PRE–INSTALLED MOUNTS (11–36)
		1	ECM WIRING PACKAGE – MANUAL OR 0–10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY

NOTES:
– DWXXFRISER USED WHEN CONNECTING TO STANDARD DUCT.
– DWXXFRISERS ARE INSTALLED ON THE INTAKE AND/OR DISCHARGE SIDES.

FAN ACCESSORIES

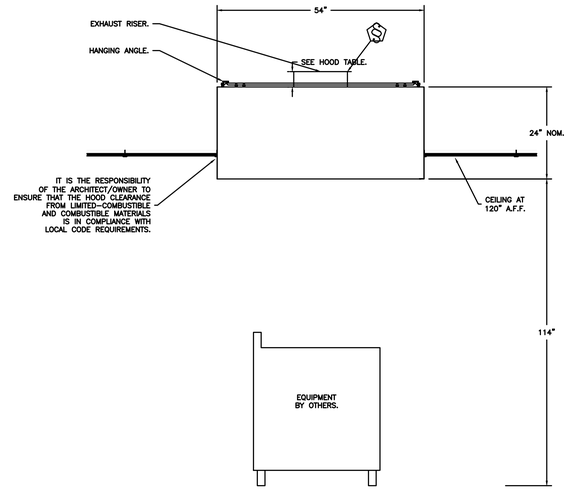
FAN UNIT NO	TAG	EXHAUST GREASE CUP	EXHAUST GRAVITY DAMPER	EXHAUST WALL MOUNT	SUPPLY SIDE DISCHARGE	SUPPLY GRAVITY DAMPER	SUPPLY MOTORIZED DAMPER	SUPPLY WALL MOUNT
1	KEF							

FAN #1 SIF13DD – EXHAUST FAN (KEF)

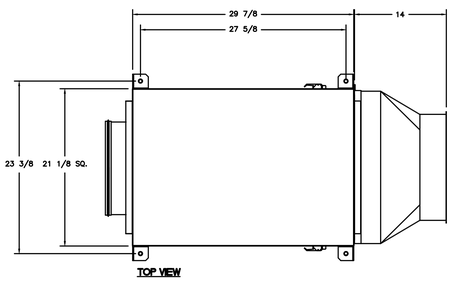


UNIVERSAL MOUNTING BRACKET

1/2" DIA. THREADED ROD ONLY
.560" DIA. MOUNTING HOLES.
USED WITH CEILING VIBRATION ISOLATORS.
USED WITH FLOOR VIBRATION ISOLATORS.
CAN BE RELOCATED IN THE FIELD AS NEEDED.



SECTION VIEW – MODEL 5424VHB
HOOD – #1



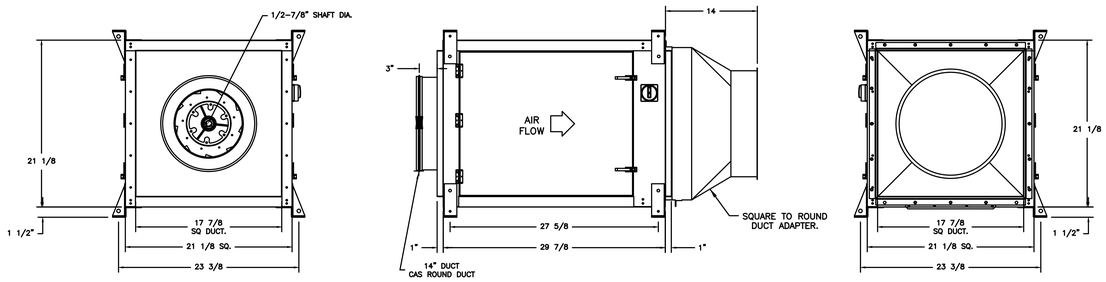
TOP VIEW

FEATURES:

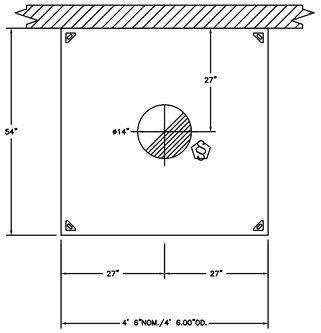
– DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
– TWO ACCESS DOORS FOR EASY ACCESS.
– BACKWARD INCLINED NON–OVERLOADING WHEELS.
– UL705 LISTING.
– AMCA AIR & SOUND CERTIFIED.
– THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

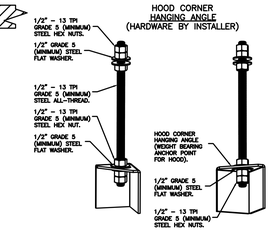
SIF 13– SS LOW SP STRAIGHT DISCHARGE– SQUARE TO ROUND DISCHARGE ADAPTER.
SIF13 – INLET – STANDARD 14" DUCT CONNNECTION.
SIF – HORIZONTAL OVERHEAD MOUNT – PRE–INSTALLED MOUNTS (11–36).
ECM WIRING PACKAGE – MANUAL OR 0–10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION.
2 YEAR PARTS WARRANTY.



NOTE: ALL INFORMATION AND DETAILS ON THIS SHEET WERE TAKEN FROM DRAWINGS PROVIDED BY CAPTIVE AIRE.

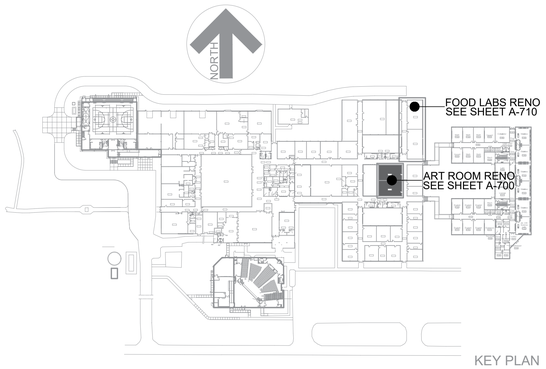


PLAN VIEW – HOOD #1
4' 6.00" LONG 5424VHB



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL–THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT–LBS.



KEY PLAN

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No.	Date	Revision

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HITE ASSOCIATES, P.C. GREENVILLE, NORTH CAROLINA REGISTERED ARCHITECTURAL CORPORATION CERTIFICATE NUMBER 418

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70 Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M 702

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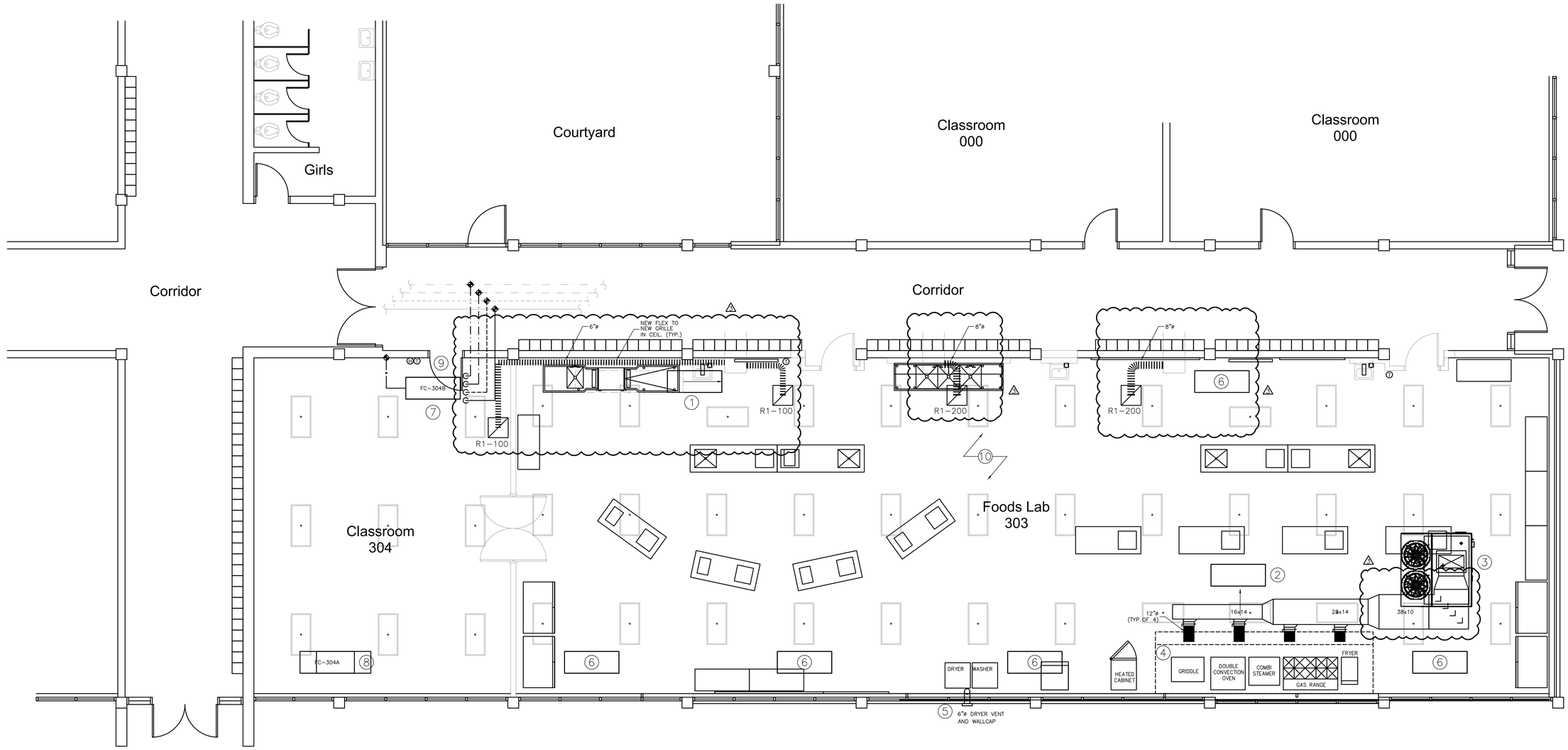


MECHANICAL PLAN NOTES:

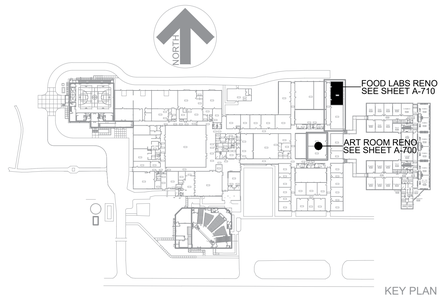
1. EXISTING FAN COIL UNIT RELOCATED TO NOT BE IN CONFLICT WITH NEW DISHWASHER OR LIGHTS. CONTRACTOR SHALL REWORK HYDRONIC PIPING AND CONDENSATE PIPING AS REQUIRED TO RECONNECT UNIT TO EXISTING HYDRONIC BRANCH PIPING AND EXISTING CONDENSATE DRAIN PIPING. FIELD COORDINATE EXACT LOCATION WITH EQUIPMENT AND LIGHTS. COORDINATE LOCATION WITH ALL OTHER TRADES.
2. EXISTING FAN COIL UNIT RELOCATED TO NOT BE IN CONFLICT WITH NEW FOODS LAB HOOD. CONTRACTOR SHALL REWORK HYDRONIC PIPING AS REQUIRED TO RECONNECT UNIT TO EXISTING HYDRONIC BRANCH PIPING. UNIT TO MOVE APPROXIMATELY 96" IN DIRECTION INDICATED. CONTRACTOR SHALL FIELD VERIFY EXACT DIMENSIONS AND COORDINATE FINAL LOCATION WITH ALL OTHER TRADES. INSTALL NEW COND. PUMP, ROUTE DISCHARGE ABOVE CEIL. BACK TO EXIST. PIPE THROUGH WALL.
3. TURN DUCTWORK UP TO MAKE-UP AIR UNIT ON ROOF ABOVE.
4. NEW KITCHEN HOOD EXHAUST FANS MOUNTED ON ROOF ABOVE.
5. INSTALL NEW DRYER DUCT AND MANUFACTURER'S WALLCAP IN EXTERIOR WALL BELOW WINDOWS.
6. EXISTING FAN COIL TO REMAIN.
7. NEW FAN COIL. CONTRACTOR TO INSTALL IN NEW CLASSROOM AS INDICATED AND CONNECT NEW HOT AND CHILLED WATER BRANCH PIPING BACK TO PIPING MAINS. PROVIDE AND INSTALL NEW MODULATING HOT AND CHILLED WATER CONTROL VALVES AND CONNECT TO EXISTING CONTROL SYSTEM. SEE FAN COIL EQUIPMENT SCHEDULE.
8. REMOVE EXISTING FAN COIL AND REPLACE WITH NEW FAN COIL AND NEW CHILLED AND HOT WATER VALVES AS INDICATED IN THE FAN COIL EQUIPMENT SCHEDULE. COORDINATE LOCATION WITH LIGHTS. REWORK TRIM PIPING TO CONNECT BACK TO EXISTING CHILLED AND HOT WATER PIPING.
9. PROVIDE AND INSTALL NEW TEMP-SENSOR AND HUMIDISTAT (CAN BE A COMBINATION UNIT) MOUNTED ON WALL NEAR CLASSROOM DOOR. CONNECT FC-304A AND FC-304B TO NEW SENSOR. TIE BACK TO EXISTING JOHNSON CONTROL SYSTEM.
10. ALL EXISTING AND NEW HVAC EQUIPMENT SHALL BE TIED BACK TO THE EXISTING CONTROLS SYSTEM. PROVIDE ANY EXPANSION CARDS, PROGRAMMING, CONTROLLER RELOCATION, UPGRADES, ETC. NECESSARY TO HAVE A COMPLETE AND OPERATIONAL SYSTEM AT PROJECT COMPLETION. CONTROLS CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS, CONTROLLERS AND COORDINATING NEW EQUIPMENT WITH MC TO MAKE SURE IT WILL SMOOTHLY INTEGRATE INTO THE EXISTING SYSTEM.

711.1 FOOD LAB MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

MECHANICAL LEGEND

G.C.	GEN. CONTR.
E.C.	ELEC. CONTR.
P.C.	PLUMB. CONTR.
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
18x16	WRAPPED RIGID DUCT
	INSULATED FLEXIBLE DUCT
	SUPPLY DIFFUSER
	RETURN AIR GRILLE
	CEILING EXHAUST GRILLE OR FAN
T AHU-1	THERMOSTAT & UNIT SERVED.
H AHU-1	HUMIDISTAT & UNIT SERVED.
A-400	DIFFUSER TYPE-CFM
MD	MANUAL DAMPER
S	DUCT MOUNTED SMOKE DETECTOR
SD	CEILING MOUNTED SMOKE DETECTOR
	FIRE ALARM HORN/STROBE (SEE GENERAL NOTES)
	CONN. TO EXIST.
G	GAS PIPING
FD	SPRING LOADED FIRE DAMPER
C AHU-1	CO2 SENSOR (800 PPM) & UNIT SERVED.
$T	TWIST TIMER SWITCH
M	120V MOTORIZED DAMPER
CO AHU-1	CO SENSOR & UNIT SERVED.
CN AHU-1	CO & NO SENSOR & UNIT SERVED. CONSPEC CN50-CON02



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Voice (252) 439-0328 * Fax (252) 439-0482 * Firm #C-1673
Project No: ES24029

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 045201 D. WILSON FOX
2/13/25

No.	Date	Revision
3	2/13/25	FIELD CHANGES & CONTR RFIs
2	9/20/24	ADDENDUM #2 - RELOCATE MAKE-UP AIR UNIT
1	9/18/24	ADDENDUM #1 - REMOVE ART ROOM KILN HOOD

Hite associates
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2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

HITE ASSOCIATES P.C. ARCHITECTURE & CORPORATION LICENSE 4418 GREENVILLE, N.C.

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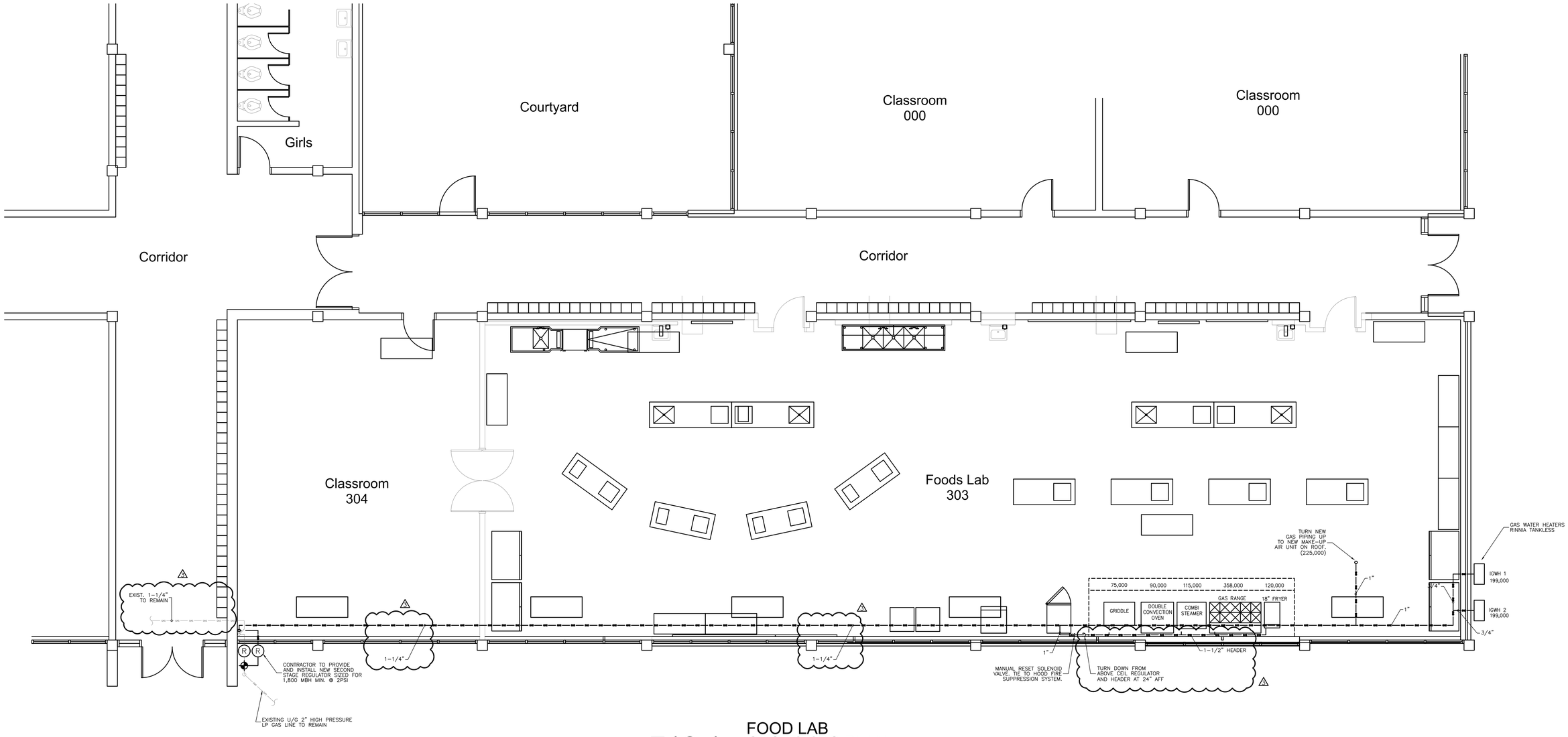


712.1 FOOD LAB GAS PIPING PLAN
SCALE: 1/4" = 1'-0"

GAS EQUIPMENT CONNECTION SCHEDULE

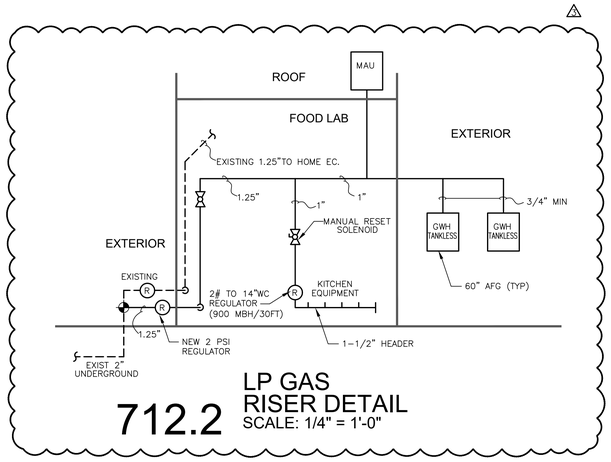
EQUIPMENT LIST	CONNECTION SIZE
GAS WATER HEATER	3/4"
GAS RANGE	1"
FRYER	1"
COMBI STEAMER	1"
DOUBLE OVEN	3/4"
GRIDDLE	3/4"
KMAU	1"

NOTE: CONNECTION SIZES ARE FOR BRANCH PIPE & EQUIP REGULATOR SIZE FROM 2PSI GAS MAIN PIPING. CONTRACTOR SHALL COORDINATE EXACT CONNECTION SIZE WITH EQUIPMENT. PROVIDE AND INSTALL ANY NECESSARY REDUCERS TO MAKE FINAL CONNECTIONS.

GAS SIZING CALCULATIONS

EQUIPMENT LIST	MBH	QUANTITY	TOTAL MBH
GAS WATER HEATER	199	2	398
GAS RANGE	358	1	358
FRYER	120	1	120
COMBI STEAMER	115	1	115
DOUBLE OVEN	90	1	90
GRIDDLE	75	1	75
KMAU	223	1	223
TOTAL CONNECTED =			**1,379**
LENGTH OF GAS LINE = 175 FT.			
TYPE OF GAS SERVICE = PROPANE			
GAS PRESSURE = 2 PSI			
SIZE OF GAS SERVICE REQUIRED = 1-1/4"			

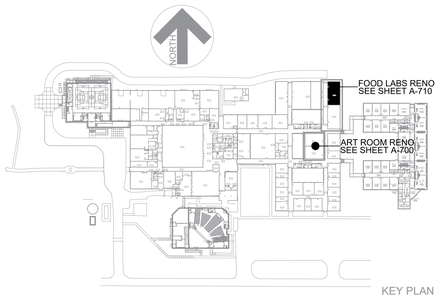
NOTE: ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF GAS PIPE IF ANY ONE OF THE ABOVE CALCULATIONS DIFFER FROM THE ACTUAL INSTALLATION REQUIREMENTS. ENGINEER SHALL HAVE OPPORTUNITY TO REVIEW ACTUAL INSTALLATION CONDITIONS AND RE-SIZE GAS SERVICE IF REQUIRED.



712.2 LP GAS RISER DETAIL
SCALE: 1/4" = 1'-0"

MECHANICAL LEGEND

G.C.	GEN. CONTR.
E.C.	ELEC. CONTR.
P.C.	PLUMB. CONTR.
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
18x16	WRAPPED RIGID DUCT
	INSULATED FLEXIBLE DUCT
	SUPPLY DIFFUSER
	RETURN AIR GRILLE
	CEILING EXHAUST GRILLE OR FAN
T AHU-1	THERMOSTAT & UNIT SERVED.
H AHU-1	HUMIDISTAT & UNIT SERVED.
A-400	DIFFUSER TYPE-CFM
MD	MANUAL DAMPER
S	DUCT MOUNTED SMOKE DETECTOR
SD	CEILING MOUNTED SMOKE DETECTOR
	FIRE ALARM HORN/STROBE (SEE GENERAL NOTES)
	CONN. TO EXIST.
G	GAS PIPING
FD	SPRING LOADED FIRE DAMPER
C AHU-1	CO2 SENSOR (800 PPM) & UNIT SERVED.
$T	TWIST TIMER SWITCH
M	120V MOTORIZED DAMPER
CO AHU-1	CO SENSOR & UNIT SERVED.
CN AHU-1	CO & NO SENSOR & UNIT SERVED. CONSPEC CN50-CON02



KEY PLAN

ES Project No: ES24029

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D. Wilson Fox
2/13/25
D. WILSON FOX

No.	Date	Revision
3	2/13/25	FIELD CHANGES & CONTR RFIs
2	9/20/24	ADDENDUM #2 - RELOCATE MAKE-UP AIR UNIT
1	9/18/24	ADDENDUM #1 - REMOVE ART ROOM KILN HOOD

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M 712

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Eastern North Carolina
REGION 36
PHONE: (919) 825 – 3566
EMAIL: reg36@captiveaire.com

PATENT NUMBERS

AC–PSP (UNITED STATES) – US PATENT 7963830 B2.
AC–PSP WALL (CANADA) – CA PATENT 2820509.
AC–PSP ISLAND (CANADA) – CA PATENT 2520330.

HOOD INFORMATION – JOB#7048750

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	KH–1	5424 ND–2–PSP–F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	200	2000			4"	14"	2000	1871	–1.068"	1600	430 SS WHERE EXPOSED	LEFT	ALONE
2	KH–2	5424 ND–2–PSP–F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	200	2000			4"	14"	2000	1871	–1.068"	1600	430 SS WHERE EXPOSED	RIGHT	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	KH–1	CAPTRATE SOLO FILTER	7	16"	16"	85% SEE FILTER SPEC	5	RECESSED ROUND	NO							YES	590 LBS
2	KH–2	CAPTRATE SOLO FILTER	7	16"	16"	85% SEE FILTER SPEC	5	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0			YES	975 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH–1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT.
		BACKSPLASH 80.00" HIGH X 252.00" LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		INSULATION FOR BACK OF HOOD.
2	KH–2	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		INSULATION FOR BACK OF HOOD.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1	KH–1	Front	120"	14"	6"	MUA	12"	28"		800	0.206"
						MUA	12"	28"		800	0.206"
2	KH–2	Front	132"	14"	6"	MUA	12"	28"		800	0.191"
						MUA	12"	28"		800	0.191"

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL–1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".
DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL–2221 OR UL–103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW– 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE–FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____

SPECIFICATION: CAPTRATE GREASE–STOP SOLO FILTER

THE CAPTRATE GREASE–STOP SOLO FILTER IS A SINGLE–STAGE FILTER FEATURING A UNIQUE S–BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

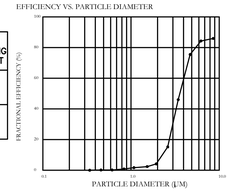
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2–INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

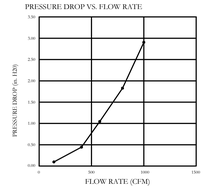
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE–STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519–05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:.
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC–S649.

NOTE: ALL INFORMATION AND DETAILS ON THIS SHEET WERE TAKEN FROM DRAWINGS PROVIDED BY CAPTIVE AIRE.

No.	Date	Revision
1	9/18/24	ADDENDUM #1 – REMOVE ART ROOM KILN HOOD

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M 713

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ES Project No: ES24029

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 9/18/24 DAVID WILSON POPE

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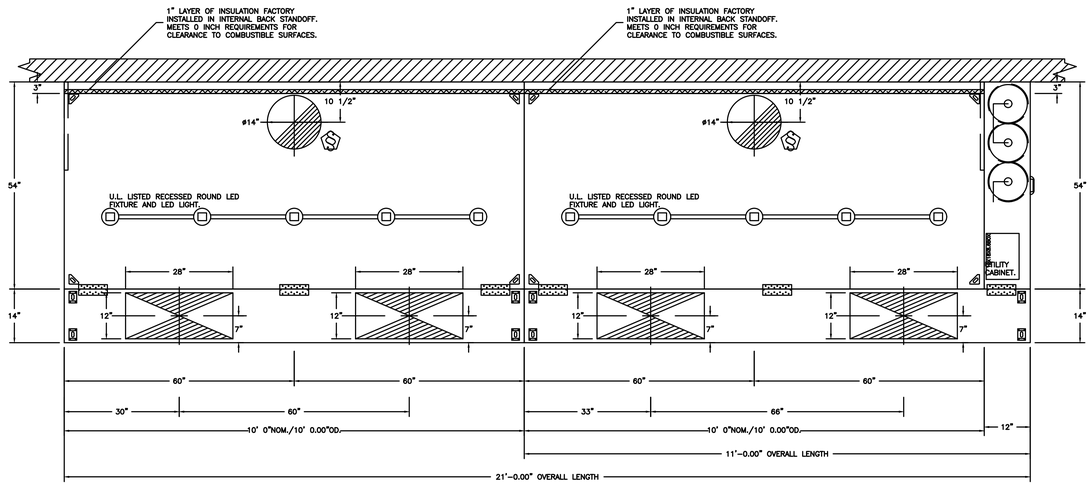
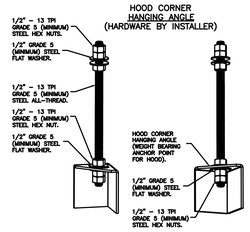


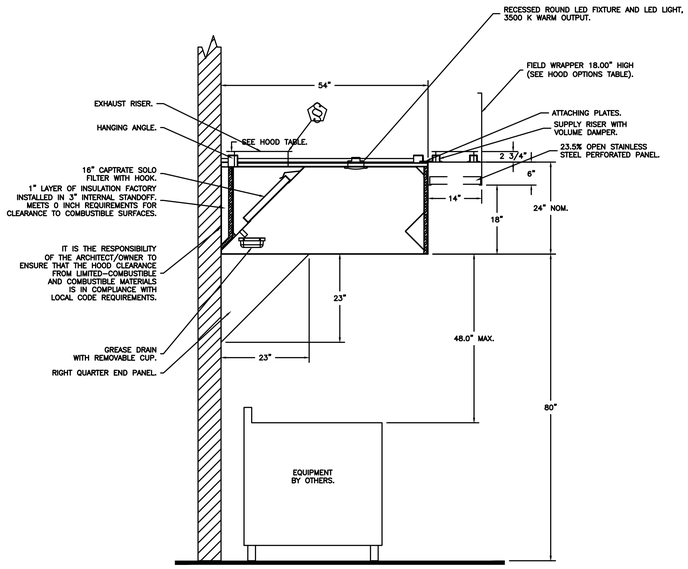
PLAN VIEW – HOOD #1 (KH-1)
10' 0.00" LONG 5424ND-2-PSP-F

PLAN VIEW – HOOD #2 (KH-2)
10' 0.00" LONG 5424ND-2-PSP-F



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #2 (KH-2)

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REGISTERED ARCHITECTURAL CORPORATION
CERTIFICATE NUMBER 418

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M 714

ES Project No: ES24029
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D. Nelson Pope
REGISTERED PROFESSIONAL ENGINEER
9/18/24
D. NELSON POPE

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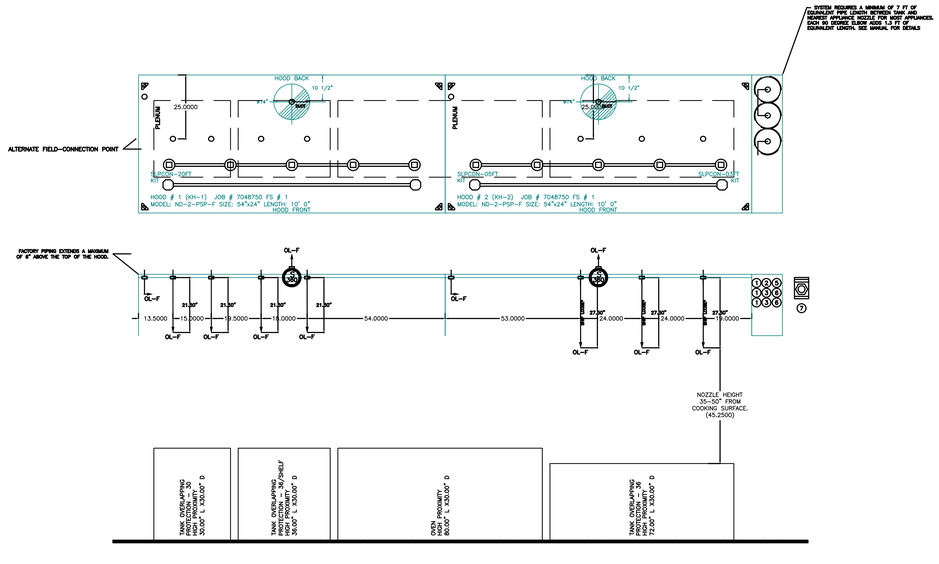

NOTES
- FIELD PIPE DROPS AS SHOWN
PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 7048750
JOB NAME: EAST CARTERET HS FOOD LAB - R3.

SYSTEM SIZE: TANK-SP-3 DESIGN FP: 48. MAXIMUM FP: 60.
HOOD # 1 10' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 2 10' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND - FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE, TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST; ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES), ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

UL 300 HOOD FIRE SUPPRESSION SYSTEM

TANK/CAS ELECTRIC WET CHEMICAL

The TANK / CAS-EWC Fire Suppression System has been tested and certified to the UL 1254 Standard for Pre-Engineered Chemical Extinguishing System Units and UL/ULC 300 Standard for Fire Extinguishing Systems for Protection of Commercial Cooking Equipment and is listed with Underwriters Laboratories (UL) under file number EX3659.

SEQUENCE OF OPERATIONS
The TANK / CAS-EWC fire system is a self-contained pressurized fire suppression system. TANK / CAS-EWC is activated when the electric firestat contacts close (at determined firestat setting and/or temperature rate-of-rise of 40°F per minute) and/or the manual activation station is pushed, an electric signal is sent to the release solenoid of the fire system. When the release solenoid is opened, it allows stored pressure from the primary tank to travel through the primary actuator kit opening a pneumatic actuator. The pneumatic actuator forces the plunger in the tank valve body to open, allowing the liquid fire suppressant to be distributed throughout the fire system piping network over the protected hazard area.

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH
NFPA #96
NSF
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001

FOR QUESTIONS
CONTACT: REGION 36
EASTERN NORTH CAROLINA

PHONE: (919) 825-3560
EMAIL: R25360@CAPTIVEAIRE.COM

NOTE: ALL INFORMATION AND DETAILS ON THIS SHEET WERE TAKEN FROM DRAWINGS PROVIDED BY CAPTIVE AIRE.

No.	Date	Revision
1	9/18/24	ADDENDUM #1 - REMOVE ART ROOM KILN HOOD

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Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M715

ES Project No: ES24029
ENGINEERING SOURCE of NC, P.A.
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Web (252) 439-0328 * fax (252) 439-0401 * files (E-103)

CARL D. THOMPSON, JR. 9/18/24

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DOAS/RTU FAN SCHEDULE – JOB#7048750

FAN INFORMATION										ELECTRICAL INFORMATION					COOLING INFORMATION												REHEAT INFORMATION					GAS HEAT INFORMATION					NOTES
FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX. OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MOCP	OUTSIDE AIR		MIXED AIR		LEAVING AIR				CAPACITY		EER	ISMRE	DISCHARGE		CAPACITY		MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTUH	OUTPUT BTUH	TEMP RISE	REQUIRED INPUT GAS PRESSURE	
																DB	WB	DB	WB	DB	WB	DP	TOTAL	SENS.				DB	WB	DESIRED	MAX							
3	KMUA–1	1	EARTU2–L250–18–10T–MPU	ECON–AIR	BMF–2–RTU	0	3200	3200	1995	0.500	3.00	3	208	60.3A	70A	85.2°F	60.3°F	85.2°F	60.3°F	70.1°F	59.3°F	59.0°F	144.0 MBH	52.0 MBH	18.6	4.3	90.0°F	75.1°F	99.9 MBH	0.2 MBH	62.7 LBS/HR	NATURAL	222433	180171	48°F	7 IN. W.C. – 14 IN. W.C.	1,2,3,4,5,6,7,8,9,10,11,12,13,14

NOTES:
1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
2. BELT DRIVE DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
5. EC MOTOR CONDENSING FANS
6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
7. SUCTION LINE ACCUMULATOR
8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER
9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
10. 2" EXTERIOR DUAL–WALL CONSTRUCTION W/ R–13 INSULATION–MINIMUM 20GA EXTERIOR W/ 14GA BASE
11. 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP
12. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
13. FULLY MODULATING HOT GAS REHEAT
14. DOWN DISCHARGE/NO RETURN

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF–1	1	GREASE BOX
		1	ECM WIRING PACKAGE – MANUAL OR 0–10VDC REFERENCE SPEED CONTROL –RTC– (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2	KEF–2	1	GREASE BOX
		1	ECM WIRING PACKAGE – MANUAL OR 0–10VDC REFERENCE SPEED CONTROL –RTC– (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
3	KMUA–1	1	INLET PRESSURE GAUGE, 0–35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	TOTAL CFM MONITORING
		1	INTAKE FIRESTAT SET TO 135°F
		1	FREEZESTAT
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	CASLINK BUILDING MONITORING SYSTEM – INTERNET OR CELLULAR CONNECTION REQUIRED
		1	RTU2 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU2 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU2 (QTY. 4)
		1	RTU FIXED 100% OA INTAKE CONTROL
		1	RTU2 NO RETURN – 100% OA – MPU
		1	RTU2 CURB DUCT HANGER
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	10 TON MODULATING COOLING OPTION, 208/230V. R454–B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON–DCV PREMIERE CONTROLS THIS UNIT, THE #20, #47, "MA", OR "E2" PREMIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREMIRE
		1	BIT ONLY REHEAT
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI–ROTATION BRACKET

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF–1	YES						
2	KEF–2	YES						

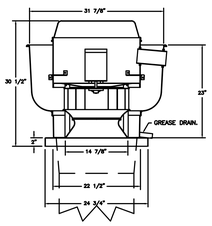
CURB ASSEMBLIES

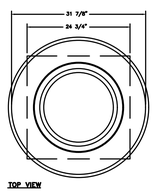
NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF–1	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H VENTED HINGED.
2	# 2	KEF–2	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H VENTED HINGED.
3	# 3	KMUA–1	90 LBS	CURB	49.500"W X 75.000"L X 14.000"H INSULATED.

HMI SCHEDULE

UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #3	HMI #1 – UNIT	IN UNIT	NOT AVERAGED	55

FANS #1 QTY.–1, #2 QTY.–1) – SUBMWEA EXHAUST FAN





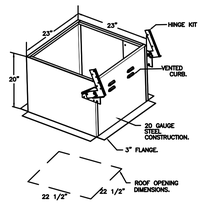
TOP VIEW

FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC–S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE–UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 800°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS
– GREASE BOX.
– ECM WIRING PACKAGE – MANUAL OR 0–10VDC REFERENCE SPEED CONTROL –RTC– (TELCO MOTOR), CCW ROTATION.
– 2 YEAR PARTS WARRANTY.



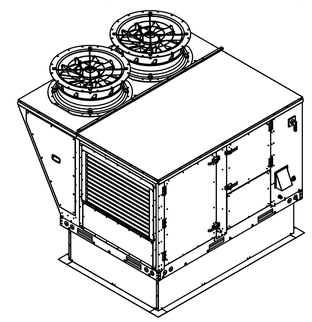
EXHAUST FAN INFORMATION – JOB#7048750

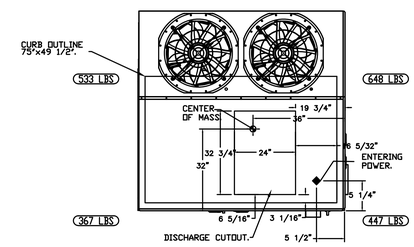
FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF–1	1	DUBSHFA	CAPTIVEAIRE	2000	1.100	1471	TEAO–ECM	1.000	0.5760	1	115	11.6	633 FPM	94	14.3
2	KEF–2	1	DUBSHFA	CAPTIVEAIRE	2000	1.100	1471	TEAO–ECM	1.000	0.5760	1	115	11.6	633 FPM	94	14.3

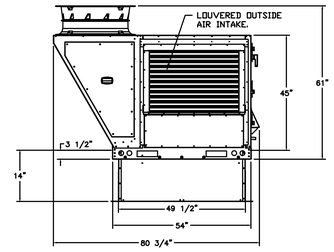
FAN #3 EARTU2–L250–18MF–10T–MPU – HEATER (KMUA–1)

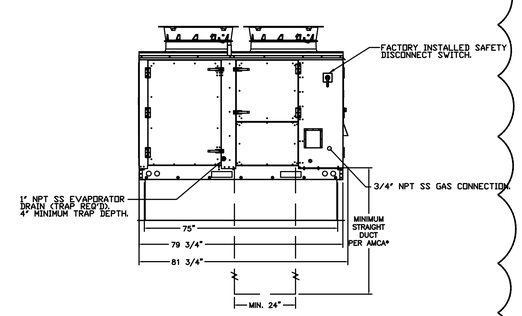
NOTES:
1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2. ( ) DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
5. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI–ROTATION BRACKET.

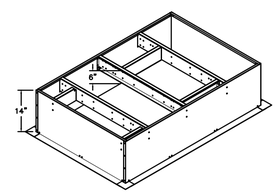
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 24" x 30.25".

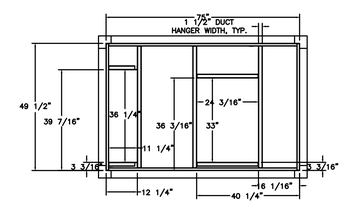












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No.	Date	Revision
1	9/18/24	ADDENDUM #1 – REMOVE ART ROOM KILN HOOD

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HITE ASSOCIATES P.C. GREENVILLE, NORTH CAROLINA REGISTERED ARCHITECTURAL CORPORATION CORPORATE NUMBER 418

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

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Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. M716

ES Project No: ES24029
ENGINEERING SOURCE of NC, P.A.
102–A2 Regency Blvd. Greenville, NC 27834
E–Mail Address: generalmail@engrsource.com
Voice (252) 439–0338 * Fax (252) 439–0492 * Firm #C–1673
CAROLINA PROFESSIONAL ENGINEER SEAL 019811 D. WILSON POU
9/18/24

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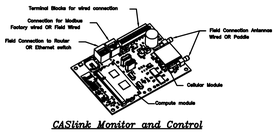
ELECTRICAL PACKAGE – JOB#7048750

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION
				LOCATION	QUANTITY	
1		SC–E012011MA	WALL MOUNT IN SS BOX	UTILITY CABINET RIGHT	1 LIGHT 1 FAN	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY

FANS CONTROLLED					
FAN TAG	TYPE	#	HP	VOLT	FLA
KEF–1	EXHAUST	1	1.000	115	11.6
KEF–2	EXHAUST	1	1.000	115	11.6
	SUPPLY	3	0.250	208	1.2



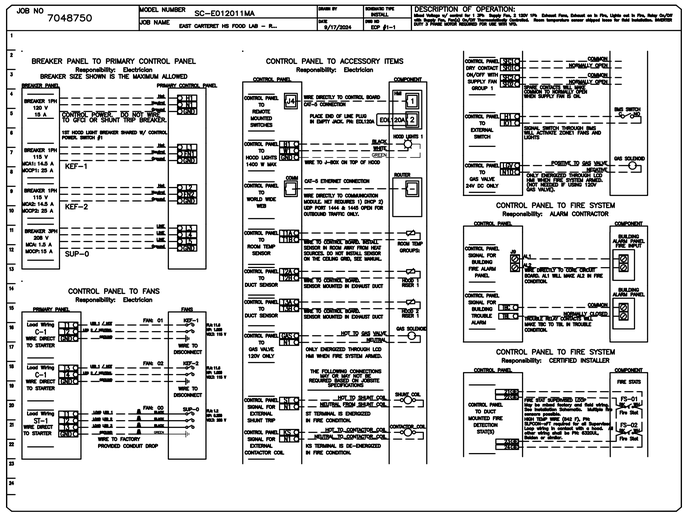
CASlink Monitor and Control

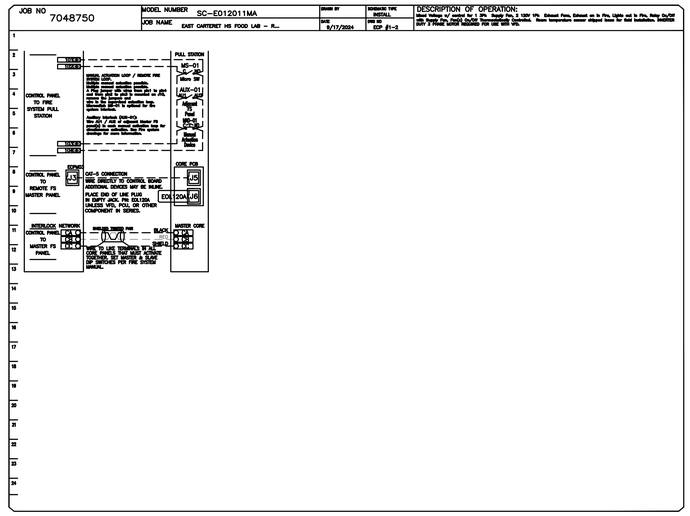
- Hood control panel to support communications to cloud-based Building Management System.
  Hood Control Panel to allow cloud-based Building Management System to monitor and control parameters outlined as CONTROL in the points list.
- Rooftop Unit Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

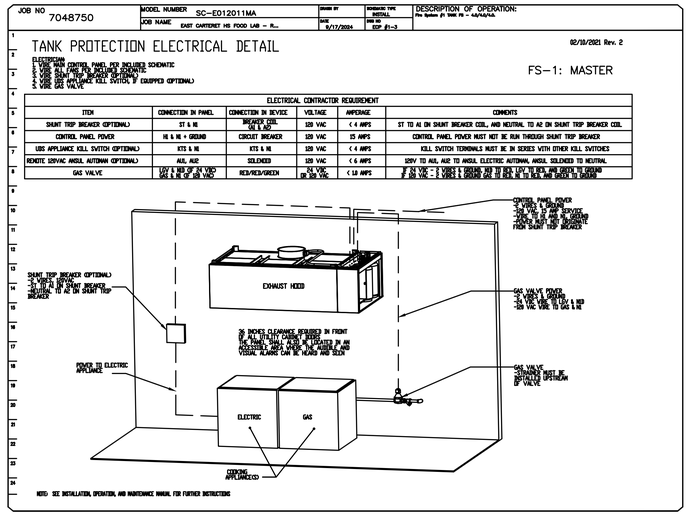
MONITORING AND CONTROL POINTS LIST

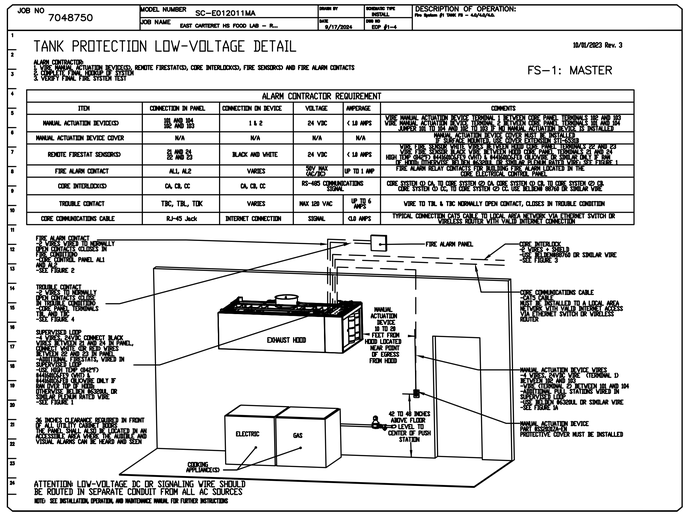
DCV Packages	Function.
Room Temperature	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR
Fan Amperage	MONITOR
Fan Power	MONITOR
VFD Faults	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
FCU Faults	MONITOR
FCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressure	MONITOR
Fans Button(s)	MONITOR & CONTROL
Lights Button(s)	MONITOR & CONTROL
Flash Button	MONITOR & CONTROL

SC Packages	Function.
Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
FCU Faults	MONITOR
FCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressure	MONITOR
Fans Button(s)	MONITOR & CONTROL
Lights Button(s)	MONITOR & CONTROL
Flash Button	MONITOR & CONTROL









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Drawing no. M717

ES Project No: ES24029
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D. Nelson Poe NORTH CAROLINA PROFESSIONAL SEAL 9/18/24

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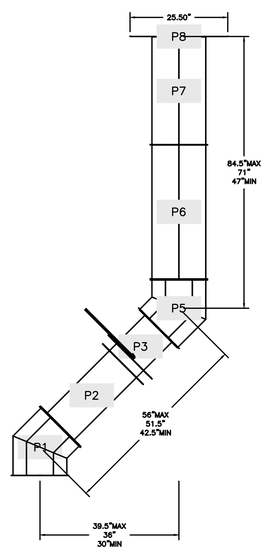
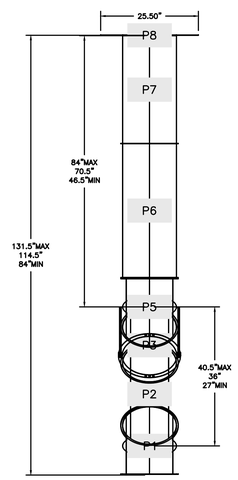
DUCTWORK #1 PARTS – JOB#7048750

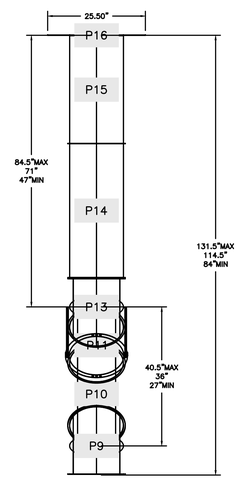
TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1445ASY	2000				–0.0578	7.22	1870.88	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 14" DUCT, ASSEMBLY.
P2	DW1423LT	2000				–0.0121	10.97	1870.88	1	SINGLE WALL DUCT 14" DIAMETER, 23" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P3	DW1424AJDKIT	2000				–0.0069	14.56	1870.88	1	SINGLE WALL DUCT ADJUSTABLE, 14" DIAMETER, 23.5" LONG, FLANGE AT ONE END WITH A 14" ADJUSTABLE COLLAR – STAINLESS STEEL.
P4	DW14SUBRASY						2.96		1	DUCT SUPPORT BRACKET KIT, 14" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P5	DW1445ASY	2000				–0.066	7.22	1870.88	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 14" DUCT, ASSEMBLY.
P6	DW1435LT	2000				–0.0183	16.34	1870.88	1	SINGLE WALL DUCT 14" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P7 ASSEMBLED W/P8	DW1448AJDKIT	2000				–0.0147	26.62	1870.88	1	SINGLE WALL DUCT ADJUSTABLE, 14" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 14" ADJUSTABLE COLLAR – STAINLESS STEEL.
P8 ASSEMBLED W/P7 O=B	DW2314TP	2000					8.49	1870.88	1	DUCT TO CURB TRANSITION, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON BDU15, DU75 & 85.
SYSTEM AT P8						–1.2438	0.00			
P9	DW1445ASY	2000				–0.0578	7.22	1870.88	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 14" DUCT, ASSEMBLY.
P10	DW1423LT	2000				–0.0121	10.97	1870.88	1	SINGLE WALL DUCT 14" DIAMETER, 23" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P11	DW1424AJDKIT	2000				–0.0069	14.56	1870.88	1	SINGLE WALL DUCT ADJUSTABLE, 14" DIAMETER, 23.5" LONG, FLANGE AT ONE END WITH A 14" ADJUSTABLE COLLAR – STAINLESS STEEL.
P12	DW14SUBRASY						2.96		1	DUCT SUPPORT BRACKET KIT, 14" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. – 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P13	DW1445ASY	2000				–0.066	7.22	1870.88	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 14" DUCT, ASSEMBLY.
P14	DW1435LT	2000				–0.0183	16.34	1870.88	1	SINGLE WALL DUCT 14" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P15 ASSEMBLED W/P16	DW1448AJDKIT	2000				–0.0147	26.62	1870.88	1	SINGLE WALL DUCT ADJUSTABLE, 14" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 14" ADJUSTABLE COLLAR – STAINLESS STEEL.
P16 ASSEMBLED W/P15 O=B	DW2314TP	2000					8.49	1870.88	1	DUCT TO CURB TRANSITION, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON BDU15, DU75 & 85.
SYSTEM AT P16						–1.2438	0.00			
	3M–2000PLUS						0.80		3	DUCT – 3M FIRE BARRIER 2000 PLUS SILICONE – USED AS SEALANT TO SEAL DUCT JOINTS.
	DW14CLASY						1.06		12	DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 14" DUCT, ASSEMBLY.
TOTAL WEIGHT							203.88			

DUCTWORK #1 SIDE VIEW



DUCTWORK #1 FRONT VIEW





NOTE: ALL INFORMATION AND DETAILS ON THIS SHEET WERE TAKEN FROM DRAWINGS PROVIDED BY CAPTIVE AIRE.

No.	Date	Revision
1	9/18/24	ADDENDUM #1 – REMOVE ART ROOM KILN HOOD

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Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
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HITE ASSOCIATES, P.C. REGISTERED CORPORATION NO. C-418 GREENVILLE, N.C.

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111

Date: 26 AUGUST, 2024

Drawing no. M 718

ES Project No: ES24029
ENGINEERING SOURCE of NC, P.A.
102-A2 Regency Blvd. Greenville, NC 27834
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CAROLINA PROFESSIONAL ENGINEER D. WILSON FOX 9/18/24

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GENERAL ELECTRICAL NOTES:

* "NEC" IS DEFINED AS BEING THE CURRENT NFPA-70 THAT HAS BEEN ADOPTED BY THE NC CODE COUNCIL AND THE NC DEPT OF INSURANCE.

1. DO NOT SCALE THESE DRAWINGS; REFER TO LARGEST SCALE ARCHITECTURAL PLANS.

2. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE NOT INTENDED TO SHOW MINOR DETAILS AND EXACT LOCATIONS. DESIGN ADJUSTMENTS SHALL BE ANTICIPATED BY THE CONTRACTOR TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

3. REFERENCE SPECIFICATIONS AND ARCHITECTURAL, STRUCTURAL, PLUMBING, & HVAC DRAWINGS PRIOR TO CONSTRUCTION.

4. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NEC/NFPA 70. CONTRACTOR SHALL NOTIFY ENGINEER REGARDING ANY CODE DISCREPANCIES SHOWN ON PLANS. ANY PERMIT OR INSPECTION FEES ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

5. CONTRACTOR SHALL INSTALL, GROUND AND BOND SYSTEM PER THE NEC WITH ALL NC MODIFICATIONS.

6. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE METHOD & HAVE NOT BEEN VERIFIED; CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK & IS RESPONSIBLE FOR ANY DAMAGE INCURRED BY FAILURE TO DO SO. EACH PRIME CONTRACTOR PERFORMING EXCAVATIONS OR UNDERGROUND WORK SHALL BE RESPONSIBLE FOR THE LOCATION OF ANY EXISTING UTILITIES IN THE AREA OF THEIR WORK. NOTIFY THE UTILITY LOCATOR SERVICE (1-800-632-4949) AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION IN ORDER THAT EXISTING UTILITIES IN THE AREA MAY BE FLAGGED AND CONTRACTOR SHALL USE ALL CARE NECESSARY WHEN WORKING IN AREAS KNOWN OR SUSPECTED TO CONTAIN UNDERGROUND UTILITIES, INCLUDING HAND DIGGING.

7. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL FIXTURES AND EQUIPMENT WITH OTHER PRIME CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS. CONTACT ARCHITECT IF ALTERNATE INSTALLATION METHOD IS REQUIRED.

8. CONTRACTOR SHALL NOT PUT MORE THAN SIX (6) DUPLEX RECEPTACLES ON ANY GIVEN 1P-20A CIRCUIT UNLESS SHOWN OTHERWISE.

9. MINIMUM WIRE SIZE SHALL BE #12 AWG., MINIMUM CONDUIT SIZE SHALL BE 3/4".

10. CONTRACTOR SHALL COORDINATE TELEPHONE AND DATA OUTLETS REQUIRED WITH OWNER PRIOR TO GYP. BOARD BEING INSTALLED.

11. HALLWAY AND MAINTENANCE RECEPTACLES SHALL NOT BE CIRCUITED WITH OFFICE OR OTHER GENERAL PURPOSE RECEPTACLES.

12. ELECTRICAL CONTRACTOR SHALL PROVIDE HACR RATED CIRCUIT BREAKERS ON ALL HVAC EQUIPMENT.

13. CONDUCTORS SHALL BE TYPE THWN OR THW. BRANCH CIRCUIT CONDUCTOR SHALL NOT BE SMALLER THAN No. 12 AWG., EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. HOME RUNS ORIGINATING MORE THAN 80' AT 120V FROM PANEL LOCATION SHALL BE No. 10 AWG MINIMUM SIZE. WIRES No. 10 AWG AND SMALLER SHALL BE SOLID; WIRES No. 8 AWG AND LARGER SHALL BE STRANDED. PROVISIONS OF NEC SECTION 210-5 COLOR CODE SHALL BE STRICTLY COMPLIED WITH AND BE CONSISTENT THROUGHOUT ENTIRE SYSTEM.

14. ALL CIRCUITS SHALL BE PROVIDED WITH AN INSULATED EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250-122. HASHMARK FOR GROUNDING CONDUCTOR IS NOT INDICATED ON THESE DRAWINGS. RACEWAY SHALL NOT BE USED AS EQUIPMENT GROUND.

15. IN ADDITION TO MECHANICAL FASTENING TO CEILING TRACK, SUPPORT LIGHT FIXTURES AT EACH CORNER INDEPENDENTLY OF SUSPENDED CEILING WITH 12 GAUGE WIRE. CONNECT TO STRUCTURAL SYSTEM OF BUILDING PRIOR TO FIRE-PROOFING APPLICATION.

16. ALL CONDUIT SHALL BE CONCEALED UNLESS OTHERWISE NOTED. ALL EMPTY CONDUIT SHALL HAVE A PULL WIRE.

17. ALL CONDUIT SHALL BE ELECTRICAL METALLIC TUBING. EMT SHALL NOT BE INSTALLED WHERE IT MAY BE SUBJECT TO PHYSICAL DAMAGE, WHERE IT WILL BE SUBJECT TO SEVERE CORROSIVE INFLUENCE, WHERE THE SIZE IS LARGER THAN 2", OR WHERE TUBING, ELBOWS, COUPLINGS, AND FITTINGS WOULD BE IN CONCRETE OR IN DIRECT CONTACT WITH THE EARTH. SCHEDULE 40 PVC CONDUIT SHALL BE USED IN ALL CONCRETE FLOOR SLABS AND WHEN IN DIRECT CONTACT WITH THE EARTH. PVC CONDUIT SHALL BE USED FOR ALL CONDUIT INSTALLED IN MASONRY WALLS AND SHALL TRANSITION BACK TO EMT OR RIGID CONDUIT AT THE TOP OF THE MASONRY WALL. PVC CONDUIT IS NOT ALLOWED IN STUD WALLS.

18. ALL CONDUIT ON THE EXTERIOR OF THE BUILDING SHALL BE EMT OR SHALL BE RIGID CONDUIT WHERE IT WILL BE EXPOSED TO PHYSICAL DAMAGE. PVC CONDUIT IS NOT ACCEPTABLE TO BE USED ON THE EXTERIOR OF THE BUILDING UNLESS IT IS IN DIRECT CONTACT WITH THE EARTH.

19. CONDUIT SHALL NOT BE RUN EXPOSED IN FINISHED AREAS UNLESS APPROVED BY ARCHITECT / OWNER. CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALL & FLOOR CONSTRUCTION IN FIRST CLASS WORKMANSHIP MANNER. CONDUIT SHALL BE BENT IN ACCORDANCE WITH NEC MINIMUM RADIUS REQUIREMENTS. WHERE SCHD 40 PVC IS INSTALLED UNDER FLOOR SLABS, THE ELBOWS REQUIRED TO TURN THE RACEWAY UP INTO CABINETS, EQUIPMENT, ETC., WHERE SUBJECT TO DAMAGE, SHALL BE OF RIGID STEEL.

20. ALL CONDUIT FITTINGS SHALL BE COMPRESSION TYPE WITH INSULATED THROATS. ALL EXTERIOR CONDUIT FITTINGS SHALL BE LISTED FOR USE IN WET LOCATIONS PER NEC ARTICLE 314.

21. PROVIDE 3" WIDE RED MAGNETIC WARNING TAPE MARKED "BURIED ELECTRIC LINE BELOW" SIX INCHES BELOW FINISH GRADE FOR ALL U.G. CONDUIT. ENCASE ALL U.G. CONDUITS NOT UNDER BLDG SLAB IN 3" OF CONCRETE.

22. SERVICE ENTRANCE CONDUCTORS SHALL BE IN CONDUIT (RIGID OR PVC). EXTERIOR CONDUIT EXPOSED ABOVE SLAB SHALL BE RIGID. INTERIOR CONDUIT EXPOSED SHALL BE ELECTRICAL METALLIC TUBING (EMT). EMT SHALL BE COLD-ROLLED STEEL TUBING WITH A COATING ON THE OUTSIDE AND PROTECTED ON THE INSIDE BY A ZINC, ENAMEL, OR EQUIVALENT CORROSION RESISTANT COATING AND CONFORMING TO THE REQUIREMENTS OF ANSI C 80.3-1996 OR LATER EDITION. ALL UNDERGROUND CONDUIT SHALL BE UL LISTED SCHD 40 PVC CONFORMING TO ARTICLES 352 & 300 OF THE NEC. WHERE SCHD 40 PVC IS INSTALLED BELOW GRADE OR UNDER FLOOR SLABS, THE ELBOWS REQUIRED TO TURN THE RACEWAY UP INTO CABINETS, EQUIPMENT, ETC., SHALL BE OF RIGID STEEL AND SHALL CONTINUE AS RIGID STEEL TO THE CABINET, EQUIPMENT, ETC. FEEDER CIRCUITS SHALL BE IN CONDUIT.

23. ALL JUNCTION OR DEVICE BOXES SHALL HAVE A COVER; PROVIDE COVER PLATES AS SPECIFIED IN SECTION 16140.

24. ALL 1P-20A CIRCUITS SHALL BE 2-#12 & 1-#12G IN 3/4"C WITH NO SHARED NEUTRALS U.N.O.

25. WHERE DISTANCE TO FIRST OUTLET ON A 20 AMP CIRCUIT EXCEEDS 50 FEET, MINIMUM SIZE OF CONDUCTOR TO BE #10 AWG TO FIRST OUTLET

26. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH ALL VOLUMES OF THE NCSBC, INSPECTORS HAVING JURISDICTION, AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

27. EACH PIECE OF ELECTRICAL GEAR, EQUIPMENT, ETC., SHALL BEAR A "UL" LABEL.

28. ALL HOLES CUT IN FLOOR, CEILING AND WALLS SHALL BE CORE-DRILLED OR SAWED.

29. ROOF DECKING SHALL NOT BE PENETRATED TO SUPPORT ELECTRICAL ITEMS.

30. ALL EMERGENCY AND EXIT LIGHTS SHALL BE CONNECTED TO THE UNINTERRUPTED SIDE OF THE LOCAL LIGHTING CIRCUIT.

31. PROVIDE AND INSTALL ENGRAVED PHENOLIC LABELS ON ALL ELECTRICAL GEAR, DISCONNECTS, ETC. FASTEN WITH SCREW FASTENERS.

32. WHERE PROVIDED BY E.C., DISCONNECTS SHALL BE HEAVY DUTY NEMA-1 RATED AT ALL INTERIOR LOCATIONS INDICATED AND HEAVY DUTY NEMA-3R RATED AT ALL EXTERIOR LOCATIONS INDICATED ON THESE DRAWINGS.

33. VERIFY WITH OWNER LOCATION/TYPE OF ALL FIXTURES, PANEL BOXES, OUTLET PLACEMENT, ETC. BY HOLDING AN ELECTRICAL WALKTHROUGH ON THE BUILDING SITE ONCE FRAMING IS COMPLETED.

34. ELECTRICAL BOXES INSTALLED IN U.L. RATED WALLS SHALL BE LOCATED A MINIMUM OF 2'-0" FROM ANY OTHER ELECTRICAL BOX IN THAT WALL.

35. LIGHTING SWITCHES, RECEPTACLES AND/OR DATA OUTLETS SHALL NOT BE MOUNTED BACK TO BACK IN ANY WALL.

36. CABLE LOCATED IN PLENUMS SHALL BE PLENUM-RATED. ALL CABLE INSTALLED IN AREAS WITH EXPOSED STRUCTURE SHALL BE IN CONDUIT.

37. E.C. SHALL INSTALL COMPLY WITH ANSI A117.1 FOR OUTLET AND CONTROL SWITCH MOUNTING HEIGHTS FOR ADA ACCESSIBILITY.

38. E.C. SHALL BE RESPONSIBLE FOR ALL LINE SIDE AND LOAD SIDE WIRING ON ALL EQUIPMENT REQUIRING ELECTRICAL POWER, INCLUDING EQUIPMENT PROVIDED BY OTHERS. E.C. SHALL BE RESPONSIBLE FOR LINE SIDE WIRING AND INSTALLING DISCONNECT SWITCHES FOR EQUIPMENT PROVIDED BY OTHERS. DISCONNECT SWITCHES FOR EQUIPMENT PROVIDED BY OTHERS SHALL BE PROVIDED BY THE RESPECTIVE CONTRACTORS. LOAD SIDE WIRING FROM DISCONNECT SWITCH SHALL BE BY E.C. AND ALL FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHERS SHALL BE BY THE RESPECTIVE CONTRACTOR. FUSING FOR EQUIPMENT PROVIDED BY OTHERS SHALL BE PROVIDED BY THE RESPECTIVE CONTRACTOR. SEE "ELECTRICAL CONNECTION DETAIL".

39. "PROVIDE" IS DEFINED AS FURNISH AND INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.

40. THE TERM "VERIFY" RELATIVE TO THESE DRAWINGS SHALL BE DEFINED AS OBTAINING EQUIPMENT INSTALLATION INSTRUCTIONS FROM EQUIPMENT SUPPLIER OR OBTAINED OWNER'S REPRESENTATIVE'S APPROVAL.

41. E.C. IS RESPONSIBLE FOR DEMOLITION OF EXISTING LIGHTS FIXTURES THAT ARE INDICATED TO BE REPLACED. E.C. SHALL FIELD VERIFY EXISTING SWITCH CIRCUITING AND REWORK SWITCH WIRING TO PROVIDE CONTROL OF LIGHTS AS INDICATED ON PLANS.

42. ALL 15 AND 20 AMP, 125V AND 250V NONLOCKING-TYPE RECEPTACLES SHALL BE TAMPER-RESISTANT IN THE FOLLOWING AREAS: (1) EDUCATION FACILITIES, (2) GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS AND THEIR COMMON AREAS, (3) BUSINESS OFFICES, CORRIDORS, WAITING ROOMS, EXAM ROOMS, AND THE LIKE IN CLINICS, MEDICAL AND DENTAL OFFICES, AND OUTPATIENT FACILITIES, (4) ALL ASSEMBLY OCCUPANCIES, (5) ALL OTHER AREAS LISTED IN THE RECEPTACLES ARTICLE OF THE NEC THE REQUIRE TAMPER-RESISTANT RECEPTACLES.

43. ALL RECEPTACLES IN KITCHENS AND FOOD PREPARATION AREAS SHALL BE GFCI PROTECTED.

44. ALL RECEPTACLES WITHIN 6 FEET OF A SINK, BATHTUB, SHOWER, OR THE LIKE SHALL BE GFCI PROTECTED REGARDLESS OF WHETHER THEY ARE INDICATED ON THESE PLANS. E.C. SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXACT DISTANCES AND PROVIDING THE GFCI PROTECTION AS REQUIRED.

45. ALL CIRCUITS SHOWN ON THESE PLANS ARE INTENDED TO BE IN THEIR OWN RACEWAY. E.C. MAY ROUTE MULTIPLE CIRCUITS IN A SINGLE RACEWAY BUT SHALL DERATE ALL CONDUCTORS IN ACCORDANCE WITH NEC TABLE 310.15(C)(1).

ELECTRICAL EQUIPMENT MOUNTING HEIGHTS

DEVICE	MT HEIGHT	TO
PANEL BOARDS	6'-6" AFF	TOP
TOGGLE SWITCH (GYPBOARD)	4'-0" AFF	℄
TOGGLE SWITCH (MASONRY)	4'-0" AFF	TOP
RECEPTACLES	1'-6" AFF	℄
RECEPTACLES (AT BASE CABINETS)	7" ACT	℄
VOICE/DATA OUTLETS	1'-6" AFF	℄
FIRE ALARM PULL STATIONS	4'-6" AFF	TOP
EMERGENCY LIGHTS	12" BFC	TOP
STROBE/HORNS	12" BFC OR 96" AFF MAX	TOP
REMOTE ANNUNCIATOR PANEL	4'-8" AFF	℄
THERMOSTATS	4'-0" AFF	℄
MANUAL SHUTDOWN SWITCHES (HVAC)	4'-0" AFF	℄

NOTES:
1) TYPICAL MOUNTING HEIGHTS ARE LISTED U.N.O.
2) BFC=BELOW FINISHED CEILING, ACT=ABOVE CABINET TOP
3) THE ABOVE LISTED EQUIPMENT IS SHOWN FOR CLARITY OF MOUNTING HEIGHT ONLY. ALL DEVICES MAY NOT BE USED ON THIS PROJECT OR SHOWN ON THESE DRAWINGS.

ELECTRICAL LEGEND (REFER TO MOUNTING HEIGHT SCHEDULE FOR MOUNTING HEIGHT INFORMATION)

- FLUORESCENT LIGHT FIXTURE, 2x4 FT.
- FLUORESCENT LIGHT FIXTURE NIGHT LIGHT
- FLUORESCENT STRIP LIGHT, 8 FT.
- FLUORESCENT STRIP LIGHT, 4 FT.
- FLUORESCENT LIGHT FIXTURE, 1x4 FT.
- FLUORESCENT LIGHT FIXTURE, 2'x2'
- POLE MOUNTED LIGHT FIXTURE, AS SPECIFIED (LIGHT)
- FLUORESCENT LIGHT FIXTURE WALL SCONCE
- OWNER SELECTED PENDANT MOUNTED
- EXTERIOR TWO-HEAD LIGHT
- EXTERIOR DOOR LIGHT
- LIGHT AND EXHAUST FAN COMBINATION
- EXHAUST FAN
- H.I.D. LIGHT FIXTURE, AS SPECIFIED.
- RECESSED OR SURFACE MOUNTED ROUND FIXTURE
- RECESSED NIGHT LIGHT
- H.I.D. WALL PACK
- BOLLARD EXTERIOR LIGHT
- EXTERIOR GROUND MOUNTED FLOOD LIGHT
- JUNCTION BOX
- TELEPHONE OUTLET WITH COVER. SEE DETAIL FOR INSTALLATION INSTRUCTIONS.
- DATA/LAN OUTLET WITH COVER. SEE DETAIL FOR INSTALLATION INSTRUCTIONS.
- EXIT LIGHT
- EMERGENCY EXIT LIGHT
- EMERGENCY LIGHT WALL MOUNTED UNLESS NOTED OTHERWISE.
- DUPLEX RECEPTACLE, 20 AMP, 120 V., "SPEC. GRADE"
- GFI DUPLEX RECEPTACLE, 20 AMP, 120 V., "SPEC. GRADE"
- 220 V. RECEPTACLE, MATCH APPLIANCE PLUG
- FLUSH MOUNTED FLOOR DUPLEX RECEPTACLE
- FLUSH MOUNTED FLOOR DATA/LAN OUTLET
- QUAD RECEPTACLE, 20 AMP, 120 V., "SPEC. GRADE"
- $ WALL SWITCH, SINGLE POLE, 20 AMP, 120 V., "SPEC. GRADE"
- $D WALL SWITCH, DIMMER, 20 AMP, 120 V., "SPEC. GRADE"
- $3 WALL SWITCH, 3-WAY, 20 AMP, 120 V., "SPEC. GRADE"
- $M MANUAL MOTOR STARTER, 20A, 120V
- $$ DOUBLE GANG WALL SWITCH, 20 AMP, 120V., "SPEC. GRADE"
- WALL MOUNTED OCCUPANCY SENSOR
- CEILING MOUNTED OCCUPANCY SENSOR
- NON-FUSED DISCONNECT SWITCH, 240V, 30A, U.N.O.
- FUSED DISCONNECT SWITCH (FUSE - DISCONNECT FUSE SIZE; FRAME - DISCONNECT FRAME SIZE)
- P FIRE ALARM MANUAL PULL STATION
- FIRE ALARM HORN/STROBE
- FIRE ALARM STROBE
- S SMOKE DETECTOR
- H HEAT DETECTOR, CEILING MOUNTED
- SD DUCT SMOKE DETECTOR
- FACP FIRE ALARM CONTROL PANEL, FLUSH MOUNTED.
- GROUND - EXTEND AND CONNECT TO APPROVED GROUND
- ELECTRICAL PANEL - SURFACE MOUNTED.
- ELECTRICAL PANEL - FLUSH MOUNTED.
- UNSWITCHED CIRCUIT, 2#12 & 1 #12 G. IN 3/4" C., U.N.O.
- SWITCHED CIRCUIT
- ?-# PANEL NAME-CIRCUIT #
- WP WEATHER PROOF
- GFI GROUND FAULT INTERRUPTER
- A.F.F. ABOVE FINISHED FLOOR
- NL NIGHT LIGHT
- U.N.O. UNLESS NOTED OTHERWISE
- IG ISOLATED GROUND
- LC LIGHTING CONTACTOR
- EWC ELECTRIC WATER COOLER
- AC ABOVE COUNTER
- BC BELOW COUNTER

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:

ENERGY CODE: PRESCRIPTIVE ☒ PERFORMANCE ☐
ASHRAE 90.1: PRESCRIPTIVE ☐ PERFORMANCE ☐

LIGHTING SCHEDULE
LAMP TYPE REQUIRED IN FIXTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)
NUMBER OF LAMPS IN FIXTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)
BALLAST TYPE IN FIXTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)
NUMBER OF BALLASTS IN FIXTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)
TOTAL WATTAGE PER FIXTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)

TOTAL INTERIOR WATTAGE SPECIFIED .VS. ALLOWED: *** 5,220W VS. 7,140W ***
EXTERIOR LIGHTING ZONE: 3
EXTERIOR LIGHTING WATTAGE SPECIFIED .VS. ALLOWED: **** NOT IN CONTRACT ****

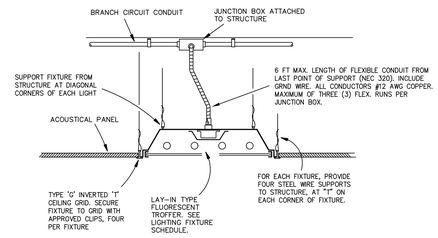
ADDITIONAL PRESCRIPTIVE COMPLIANCE

- ☐ 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

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of the North Carolina Building Code, Energy Conservation Code.

SIGNED: Alex R. Casey III
NAME: ALEX R. CASEY III, P.E.
TITLE: PROFESSIONAL ENGINEER

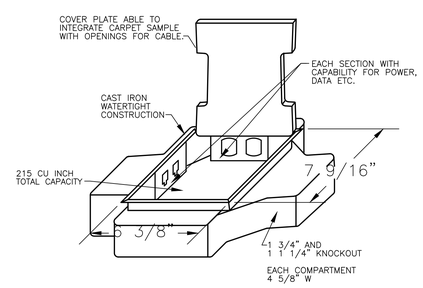
*** 3,475 SF @ 1.24 W/SF FOR CLASSROOM + 2,922 SF @ 1.21 W/SF FOR FOOD PREP AREA + 734 SF @ 0.63 W/SF FOR STORAGE ROOM) x 0.9 50% COMPLIANCE**
**** EXISTING TO REMAIN - NO WORK IN THIS CONTRACT ****



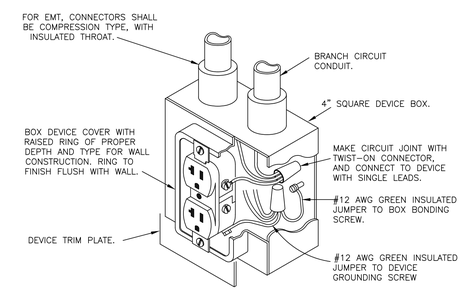
700.3 FLUORESCENT / LED TROFFER INSTALLATION
SCALE: N.T.S.

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMPS	VOLTS	WATTS	B.F.
A	2'x4' LAY-IN LED FLAT PANEL WITH ACRYLIC LENS. PROVIDE WITH MEDIUM LUMEN PACKAGE (4,600-5,600 LUMENS) AND DIMMING DRIVER. PROVIDE: DAY-BRITE#: 2FPZ48L840-4-DS-UNV-DIM LITHONIA#: EPANL-2X4-48DULM-80CRI-40K-MIN10-DIM-MVOLT OR WILLIAMS#: BP24-LS-8CS-DIM-UNV	LED	UNV	45W	-
	AUTOMATIC, SELF-CONTAINED, SELF DIAGNOSTIC, MAINTENANCE FREE 2-HEAD EMERGENCY LIGHT. UL 924 LISTED AND NFPA 101 COMPLIANT, ABS THERMOPLASTIC HOUSING, PILOT & STATUS INDICATING LIGHTS. SELF DIAGNOSTICS SHALL INCLUDE CONTINUOS SELF CHECKS AND 30 MINUTE FULL LOAD TEST WITH CHARGER OFF EVERY 30 DAYS. PROVIDE SURE-LITES #: APEL SERIES OR EQUAL BY EMERGILITE OR LITHONIA	2-9W MR16	120/ 6V	18	N/A



700.1 FLOOR BOX DETAIL
SCALE: N.T.S.



700.2 TYPICAL DUPLEX RECEPTACLE INSTALLATION
SCALE: N.T.S.

No.	Date	Revision

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

Food Lab And Art Room Renovation
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Carteret County Schools / North Carolina

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Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. E 001

ES Project No: ES24029
ENGINEERING SOURCE of NC, P.A.
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NEW PANELBOARD SCHEDULE - "HE"

MAIN: 225 MCB | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22,000 | BUS BARS: COPPER

CKT #	BKR TRIP	POLE	WIRE SIZE	COND SIZE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE ABC	LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	COND SIZE	WIRE SIZE	POLE	BKR TRIP	CKT #
1	20	1	12	3/4"	FAN COIL			1.6							0.4						RECEPT COUNTER TOP	3/4"	12	1	20	2
3	20	1	12	3/4"	FAN COIL			1.6							0.2						RECEPT BY SINK	3/4"	12	1	20	4
5	20	1	12	3/4"	WIRE MOLD UNDER WINDOW		1.2								1.2						COUNTER TOP WIRE MOLD	3/4"	12	1	20	6
7	20	1	12	3/4"	WIRE MOLD UNDER WINDOW		1.2								0.2						RECEPT (OLD REFRIGERATOR)	3/4"	12	1	20	8
9	20	1	12	3/4"	RECEPT BY PANEL		0.4								0.2						RECEPT BEHIND SINK	3/4"	12	1	20	10
11	20	1	12	3/4"	RECEPT (OLD REFRIGERATOR)		0.2								0.4						COUNTER TOP RECEPT	3/4"	12	1	20	12
13	20	1	12	3/4"	UNKNOWN		0.8														SPARE	3/4"	12	1	20	14
15	20	1	12	3/4"	UNKNOWN		0.8														SPARE	3/4"	12	1	20	16
17	20	1			SPARE																SPARE	3/4"	12	1	20	18
19	20	1			SPARE																SPACE			1		20
21	20	1			SPARE																SPACE			1		22
23	20	1			SPARE																SPACE			1		24
25	1	1			SPACE																SPACE			1		26
27	1	1			SPACE																SPACE			1		28
29	1	1			SPACE																SPACE			1		30
31	1	1			SPACE																SPACE			1		32
33	1	1			SPACE																SPACE			1		34
35	1	1			SPACE																SPACE			1		36
37	1	1			SPACE																SPACE			1		38
39	1	1			SPACE																SPACE			1		40
41	1	1			SPACE																SPACE			1		42
	200	1	3/0	2"	PANEL "FL"	1.1	1.6	9.9	0.0	0.0	11.2	0.9														
					SUB FEED LUGS	1.1	2.0	7.9	0.0	0.0	10.3	2.0														
					4-#3/0 & 1-#6 IN 2.5"C	0.5	3.2	9.1	0.0	0.0	8.1	3.2														
LIGHTING (KVA):						2.7	11.4	30.2	0.0	0.0	29.6	6.1		0.0	2.6	0.0	0.0	0.0	0.0	0.0	CONNECTED LOAD (KVA):				82.6	
RECEPTACLES (KVA):					14.0																DEMAND LOAD (KVA):				70.9	
MOTORS (KVA):					30.2								PHASE A	29	240.4											
A/C (KVA):					0.0								PHASE B	27	221.0						CONNECTED LOAD (AMPS):				229.1	
HEATING (KVA):					0.0								PHASE C	27	226.5						DEMAND LOAD (AMPS):				196.7	
KITCHEN (KVA):					29.6									KVA	AMPS											
MISCELLANEOUS (KVA):					6.1																					

NOTES: PROVIDE PANEL WITH SUB-FEED LUGS AS INDICATED.

EXISTING PANELBOARD SCHEDULE - "AR"

MAIN: 225 | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22,000 | BUS BARS: COPPER

CKT #	BKR TRIP	POLE	WIRE SIZE	COND SIZE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE ABC	LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	COND SIZE	WIRE SIZE	POLE	BKR TRIP	CKT #
1	50	2	6	1"	KILN																** EXISTING TO REMAIN	1"	6	2	50	2
3												5.0														4
5	50	2	6	1"	** EXISTING TO REMAIN																SPACE			1		6
7															0.7						+ LTS - ART RM	3/4"	12	1	20	8
9	30	2	10	3/4"	** EXISTING TO REMAIN										0.7						+ LTS - ART RM	3/4"	12	1	20	10
11																					SPACE			1		12
13	20	1	12	3/4"	NEW PYROMONITOR							0.5									SPACE			1		14
15	20	1	12	3/4"	+ ENVIROVENT 2 FOR KILN			0.2													SPACE			1		16
17	20	1	12	3/4"	RECEPT WALL		1.0								1.0						RECEPT WALL	3/4"	12	1	20	18
19	20	1	12	3/4"	RECEPT WALL		1.0								1.0						RECEPT COUNTER	3/4"	12	1	20	20
21	20	1	12	3/4"	KILN EXHAUST FAN			1.1							1.0						RECEPT WALL	3/4"	12	1	20	22
23	20	1	12	3/4"	UNKNOWN										1.0						PLUG MOLD	3/4"	12	1	20	24
25	20	1	12	3/4"	UNKNOWN										1.0						UNKNOWN	3/4"	12	1	20	26
27	20	1	12	3/4"	SPARE										1.0						PLUG MOLD	3/4"	12	1	20	28
29	30	2	10	3/4"	** EXISTING TO REMAIN												2.3				WATER HEATER	3/4"	10	2	30	30
31																	2.3									32
33		1			SPACE																SPACE			1		34
35		1			SPACE																SPACE			1		36
LIGHTING (KVA):					1.4	0.0	2.0	1.3	0.0	0.0	0.0	5.5		1.4	6.0	0.0	0.0	4.5	0.0	0.0	CONNECTED LOAD (KVA):				20.6	
RECEPTACLES (KVA):					8.0																DEMAND LOAD (KVA):				21.2	
MOTORS (KVA):					1.3								PHASE A	6	53.5											
A/C (KVA):					0.0								PHASE B	9	74.5						CONNECTED LOAD (AMPS):				57.2	
HEATING (KVA):					4.5								PHASE C	5	43.8						DEMAND LOAD (AMPS):				58.9	
KITCHEN (KVA):					0.0									KVA	AMPS											
MISCELLANEOUS (KVA):					5.5																					

NOTES: + INDICATES ADDED BREAKER, * INDICATES REPLACED BREAKER, ** INDICATED EXISTING BREAKER TO REMAIN AS SPARE.

NEW PANELBOARD SCHEDULE - "FL"

MAIN: 225 MCB | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22,000 | BUS BARS: COPPER

CKT #	BKR TRIP	POLE	WIRE SIZE	COND SIZE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE ABC	LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	COND SIZE	WIRE SIZE	POLE	BKR TRIP	CKT #
1	20	1	12	3/4"	WASHER							0.9								1.2	FREEZER	3/4"	12	1	20	2
3	30	2	10	3/4"	DRYER **							2.0								0.6	REFRIGERATOR	3/4"	12	1	20	4
5												2.0								2.3	HEATED CABINET	3/4"	10	1	25	6
7	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6	INDUCTION COOKTOP **	3/4"	12	2	15	8
9	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6						10
11	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6	INDUCTION COOKTOP **	3/4"	12	2	15	12
13	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6						14
15	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6	INDUCTION COOKTOP **	3/4"	12	2	15	16
17	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6						18
19	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6	INDUCTION COOKTOP **	3/4"	12	2	15	20
21	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.6						22
23	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													1.2	FREEZER	3/4"	12	1	20	24
25	20	1	12	3/4"	CHORD REEL FOOD LAB		0.4													0.6	REFRIGERATOR	3/4"	12	1	20	26
27	20	1	12	3/4"	RECEPT - TEACHER		0.4													1.3	ICE MACHINE	3/4"	12	1	20	28
29	20	1	12	3/4"	HOOD FAN KEF-1			1.4												1.2	FOOD LAB MONITORS	3/4"	12	1	20	30
31	20	1	12	3/4"	HOOD FAN KEF-2			1.4												2.6	DISHWASHER	3/4"	10	2	30	32
33	20	1	12	3/4"	HOOD LTG/CONTROL			0.7												2.6						34
35	20	1	12	3/4"	RECEPT - VIDEO MONITORS		0.4									0.5					IGWH #1	3/4"	12	1	10	36
37	20	1	12	3/4"	LTS - FOODS LAB 303	1.1										0.5					IGWH #2	3/4"	12	1	10	38
39	20	1	12	3/4"	LTS - FOODS LAB 303	1.1															SPARE	3/4"	12	1	10	40
41	20	1	12	3/4"	LTS - CLASSROOM 304	0.5															SPARE			1	20	42
43	20	1	12	3/4"	FC-304B			0.7													SPARE			1	20	44
45	20	1	12	3/4"	RECEPT - CLASSROOM 304		0.4														SPARE			1	20	46
47	20	1	12	3/4"	RECEPT - FOODS LAB		1.6														SPARE			1	20	48
49	20	1																			SPACE			1		50
51	20	1			SPARE																SPACE			1		52
53	20	1	12	3/4"	SHUNT "FLB"																SPACE			1		54
55	100	3	3	1 1/4"	PANEL "FLS" (SHUNT)	0.0	0.0	7.2	0.0	0.0	2.0	0.0									SPACE			1		56
57						0.0	0.0	7.2	0.0	0.0	1.0	0.0									SPACE			1		58
59						0.0	0.0	7.2	0.0	0.0	1.4	0.0									SPACE			1		60
LIGHTING (KVA):					2.7	2.7	6.8	26.0	0.0	0.0	4.4	4.9		0.0	0.0	1.0	0.0	0.0	25.2	1.2	CONNECTED LOAD (KVA):				72.2	
RECEPTACLES (KVA):					6.8																DEMAND LOAD (KVA):				62.5	
MOTORS (KVA):					27.0								PHASE A	25	205.4											
A/C (KVA):					0.0								PHASE B	23	194.4						CONNECTED LOAD (AMPS):				200.3	
HEATING (KVA):					0.0								PHASE C	24	201.5						DEMAND LOAD (AMPS):				173.4	
KITCHEN (KVA):					29.6									KVA	AMPS											
MISCELLANEOUS (KVA):					6.1																					

NOTES: ** INDICATES GFI BREAKER

NEW PANELBOARD SCHEDULE - "FLS" (SHUNT)

MAIN: 100 MLO | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22,000 | BUS BARS: COPPER

CKT #	BKR TRIP	POLE	WIRE SIZE	COND SIZE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE ABC	LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	COND SIZE	WIRE SIZE	POLE	BKR TRIP	CKT #
1	70	3	4	1 1/4	MAU-1			7.2											1.0		FRYER	3/4"	12	1	20	2
3					4-#4 & 1-#8G IN 1-1/4"C			7.2											0.4		GAS RANGE	3/4"	12	1	20	4
5								7.2											1.4		COMBI STEAMER	3/4"	12	1	20	6
7	20	1			SPARE														1.0		CONVECTION OVEN	3/4"	12	1	20	8
9	20	1			SPARE														0.6		GRIDDLE	3/4"	12	1	20	10
11	20	1			SPARE																SPARE			1	20	12
13	20	1			SPARE																SPARE			1	20	14
15	20	1			SPARE																SPARE			1	20	16
17	20	1			SPARE																SPARE			1	20	18
19	1	1			SPACE																SPACE			1		20
21	1	1			SPACE																SPACE			1		22
23	1	1			SPACE																SPACE			1		24
25	1	1			SPACE																SPACE			1		26
27	1	1			SPACE																SPACE			1		28
29	1	1			SPACE																SPACE			1		30
LIGHTING (KVA):					0.0	0.0	0.0	21.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	4.4	0.0	CONNECTED LOAD (KVA):				26.1	
RECEPTACLES (KVA):					0.0																DEMAND LOAD (KVA):				24.6	
MOTORS (KVA):					21.7								PHASE A	9	77.0											
A/C (KVA):					0.0								PHASE B	8	68.7						CONNECTED LOAD (AMPS):				72.5	
HEATING (KVA):					0.0								PHASE C	9	72.0						DEMAND LOAD (AMPS):				68.2	
KITCHEN (KVA):					4.4									KVA	AMPS											
MISCELLANEOUS (KVA):					0.0																					

NOTES:

HE DEMAND CALCS

LIGHTING		2.70	KVA	X 125 %	=	**3.4 KVA**
RECEPTAC	TOTAL	14.00	KVA			
	1ST	10.00	KVA	X 100 %	=	**10.0 KVA**
	REMAIN	4.00	KVA	X 50 %	=	**2.0 KVA**
MOTORS		30.18	KVA	X 100 %	=	**30.2 KVA**
	LARGEST	0.00	KVA	X 125 %	=	**0.0 KVA**
A/C		0.00	KVA	X 100 %	=	**0.0 KVA**
HEATING		0.00	KVA	X 100 %	=	**0.0 KVA**
EXIST CKTS		_____	KVA	X 100 %	=	**0.0 KVA**
KITCHEN		29.60	KVA	X 65 %	=	**19.2 KVA**
MISCELLANEOUS		6.10	KVA	X 100 %	=	**6.1 KVA**
TOTAL	=	**196.7 amps**			=	**70.9 KVA**

AR DEMAND CALCS

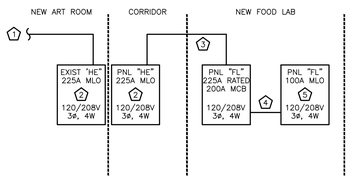
LIGHTING		1.35	KVA	X 125 %	=	**1.7 KVA**
RECEPTAC	TOTAL	8.00	KVA			
	1ST	10.00	KVA	X 100 %	=	**8.0 KVA**
	REMAIN	0.00	KVA	X 50 %	=	**0.0 KVA**
MOTORS		0.20	KVA	X 100 %	=	**0.2 KVA**
	LARGEST	1.07	KVA	X 125 %	=	**1.3 KVA**
A/C		0.00	KVA	X 100 %	=	**0.0 KVA**
HEATING		4.50	KVA	X 100 %	=	**4.5 KVA**
EXIST CKTS		_____	KVA	X 100 %	=	**0.0 KVA**
KITCHEN		0.00	KVA	X 65 %	=	**0.0 KVA**
MISCELLANEOUS		5.50	KVA	X 100 %	=	**5.5 KVA**
TOTAL	=	**58.9 amps**			=	**21.2 KVA**

FL DEMAND CALCS

LIGHTING		2.70	KVA	X 125 %	=	**3.4 KVA**
RECEPTAC	TOTAL	6.80	KVA			
	1ST	10.00	KVA	X 100 %	=	**6.8 KVA**
	REMAIN	0.00	KVA	X 50 %	=	**0.0 KVA**
MOTORS		26.96	KVA	X 100 %	=	**27.0 KVA**
	LARGEST	0.00	KVA	X 125 %	=	**0.0 KVA**
A/C		0.00	KVA	X 100 %	=	**0.0 KVA**
HEATING		0.00	KVA	X 100 %	=	**0.0 KVA**
EXIST CKTS		_____	KVA	X 100 %	=	**0.0 KVA**
KITCHEN		29.60	KVA	X 65 %	=	**19.2 KVA**
MISCELLANEOUS		6.10	KVA	X 100 %	=	**6.1 KVA**
TOTAL	=	**173.4 amps**			=	**62.5 KVA**

FLS DEMAND CALCS

LIGHTING		0.00	KVA	X 125 %	=	**0.0 KVA**
RECEPTAC	TOTAL	0.00	KVA			
	1ST	10.00	KVA	X 100 %	=	**0.0 KVA**
	REMAIN	0.00	KVA	X 50 %	=	**0.0 KVA**
MOTORS		21.73	KVA	X 100 %	=	**21.7 KVA**
	LARGEST	0.00	KVA	X 125 %	=	**0.0 KVA**
A/C		0.00	KVA	X 100 %	=	**0.0 KVA**
HEATING		0.00	KVA	X 100 %	=	**0.0 KVA**
EXIST CKTS		_____	KVA	X 100 %	=	**0.0 KVA**
KITCHEN		4.40	KVA	X 65 %	=	**2.9 KVA**
MISCELLANEOUS		0.00	KVA	X 100 %	=	**0.0 KVA**
TOTAL	=	**68.2 amps**			=	**24.6 KVA**



ELECTRICAL RISER NOTES:

1. EXISTING FEEDERS TO BE REUSED TO CONNECT THE NEW ELECTRICAL PANEL REPLACING THE EXISTING PANEL "HE".
2. ELECTRICAL CONTRACTOR SHALL DISCONNECT AND TRACE ALL EXISTING CIRCUITS TO REMAIN. SEE EXISTING PANEL "HE" DEMO NOTES. ALL OTHER CIRCUITS ARE TO BE REMOVED. INSTALL NEW PANEL IN CORRIDOR WALL BACKED UP TO EXISTING PANEL AND RECONNECT CKTS IN NEW PANEL. OFFER PANEL AND ALL EXISTING BREAKERS BACK TO THE OWNER FOR SALVAGE.
3. 4-#3/0 & 1-#6G IN 2.5"C
4. 4-#3 & 1-#8G IN 1.5"C
5. PANEL "FLS" TO BE FED WITH A SHUNT TRIP BREAKER FROM PANEL "FL". SHUNT BREAKER SHALL BE CONNECTED TO FOODS LAB HOOD FIRE SUPPRESSION SYSTEM CONTROLLER. COORDINATE CONNECTION REQUIREMENTS WITH HOOD PROVIDER AND MECHANICAL CONTRACTOR.

002.1 ELECTRICAL RISER DIAGRAM

SCALE: N.T.S.

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Voice (252) 439-0338 • Fax (252) 439-0482 • Firm #C-1673
Project No: ES24029
9/18/24

No.	Date	Revision
1	9/18/24	ADDENDUM #1 - REMOVE ART ROOM KILN HOOD

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. E 002

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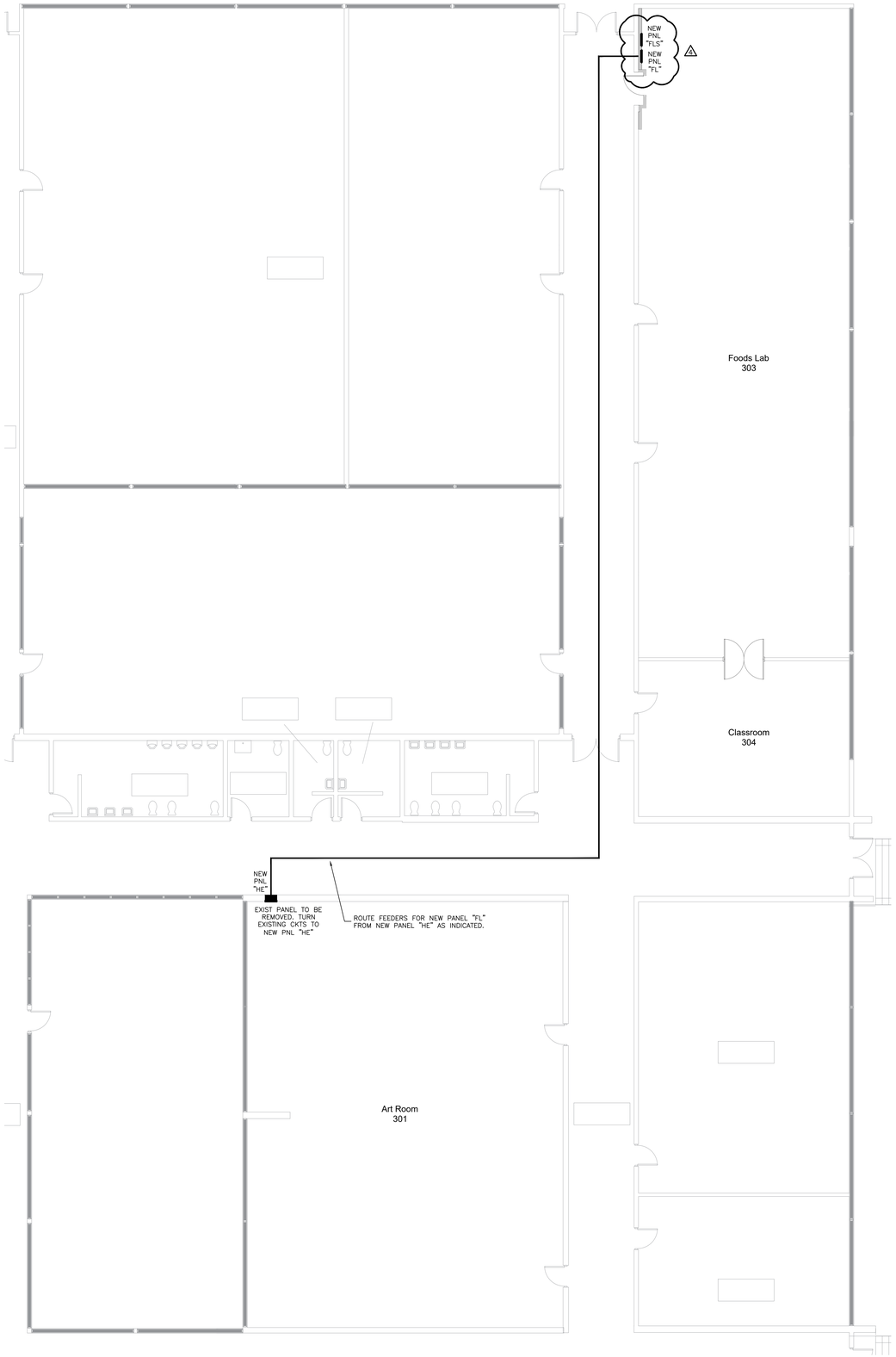
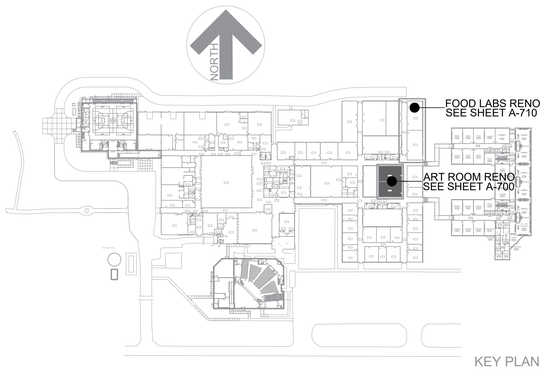


003.1 OVERALL ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"



KEY PLAN

No.	Date	Revision
4	3/5/25	LOCATE EXIST CEIL SPEAKERS
3	2/13/25	FIELD CHANGES & CONTR RFIs
2	9/20/24	ADDENDUM #2 – RELOCATE MAKE-UP AIR UNIT
1	9/18/24	ADDENDUM #1 – REMOVE ART ROOM KILN HOOD

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HITE ASSOCIATES P.C. REGISTERED ARCHITECTURAL CORPORATION CERTIFICATE NUMBER 4418 GREENVILLE, NORTH CAROLINA

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111

Date: 26 AUGUST, 2024

Drawing no. E 003

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Project No: ES24029
NORTH CAROLINA PROFESSIONAL SEAL 025 ENGINEER D. WILSON POPE
3/5/25

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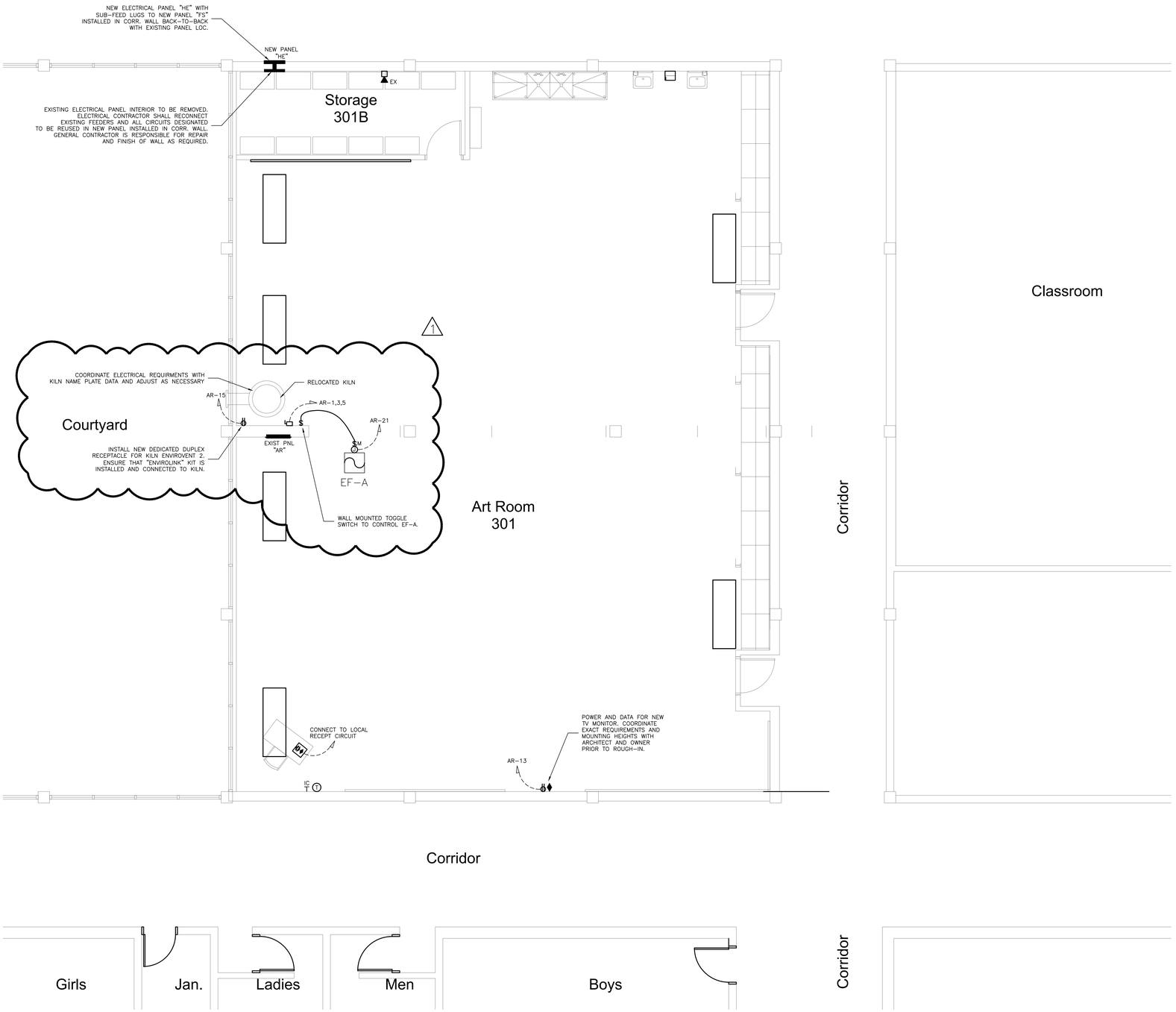
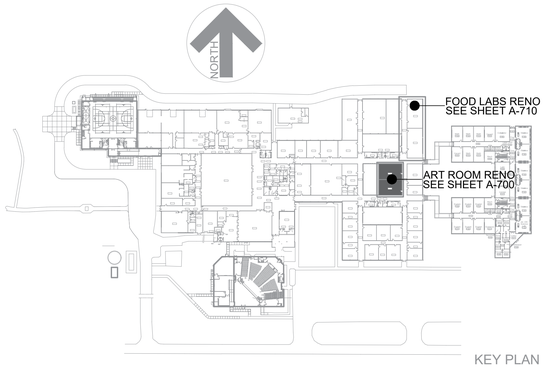


701.1 ART PLAN POWER PLAN

SCALE: 1/4" = 1'-0"



KEY PLAN

No.	Date	Revision
1	9/18/24	ADDENDUM #1 – REMOVE ART ROOM KILN HOOD

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Carteret County Schools / North Carolina

Project No. 22111

Date: 26 AUGUST, 2024

Drawing no. E 701

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Project No: ES24029
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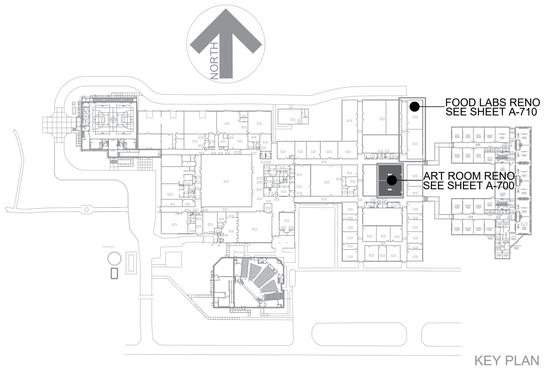
702.1 ART ROOM LIGHTING PLAN
SCALE: 1/4" = 1'-0"



No.	Date	Revision

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GREENVILLE, N.C.
CERTIFICATE NUMBER 418

Food Lab And Art Room Renovation
East Carteret High School
3263 Hwy. 70, Beaufort, NC 28516
Carteret County Schools / North Carolina

Project No. 22111
Date: 26 AUGUST, 2024
Drawing no. E 702

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ES Project No: ES24029
NORTH CAROLINA PROFESSIONAL SEAL 021953 ENGINEER D. WILSON DOLL
08/26/24

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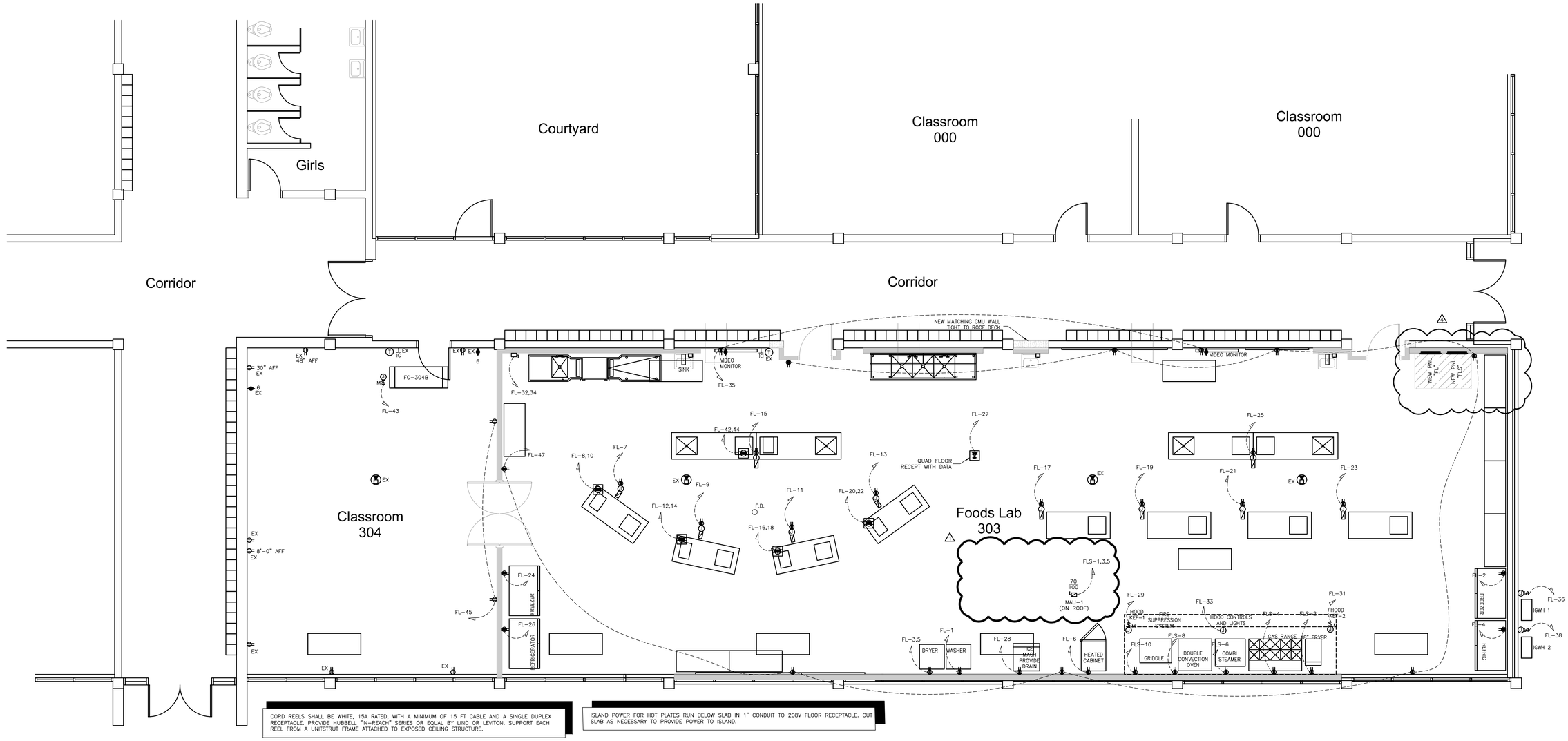
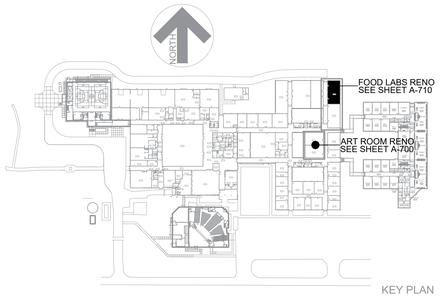


CORD REELS SHALL BE WHITE, 15A RATED, WITH A MINIMUM OF 15 FT CABLE AND A SINGLE DUPLEX RECEPTACLE. PROVIDE HUBBELL "IN-REACH" SERIES OR EQUAL BY LIND OR LEVITON. SUPPORT EACH REEL FROM A UNITSTRUT FRAME ATTACHED TO EXPOSED CEILING STRUCTURE.

ISLAND POWER FOR HOT PLATES RUN BELOW SLAB IN 1" CONDUIT TO 208V FLOOR RECEPTACLE. CUT SLAB AS NECESSARY TO PROVIDE POWER TO ISLAND.

COORDINATE RECEPTACLE AND DATA OUTLET MOUNTING HEIGHTS FOR TV/MONITORS WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.

711.1 FOOD LAB POWER PLAN
SCALE: 1/4" = 1'-0"



KEY PLAN

No.	Date	Revision
4	3/5/25	LOCATE EXIST CEIL SPEAKERS
3	2/13/25	FIELD CHANGES & CONTR RFIs
2	9/20/24	ADDENDUM #2 - RELOCATE MAKE-UP AIR UNIT
1	9/18/24	ADDENDUM #1 - REMOVE ART ROOM KILN HOOD

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D. Thomas Fox 3/5/25
NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 029126 D. THOMAS FOX

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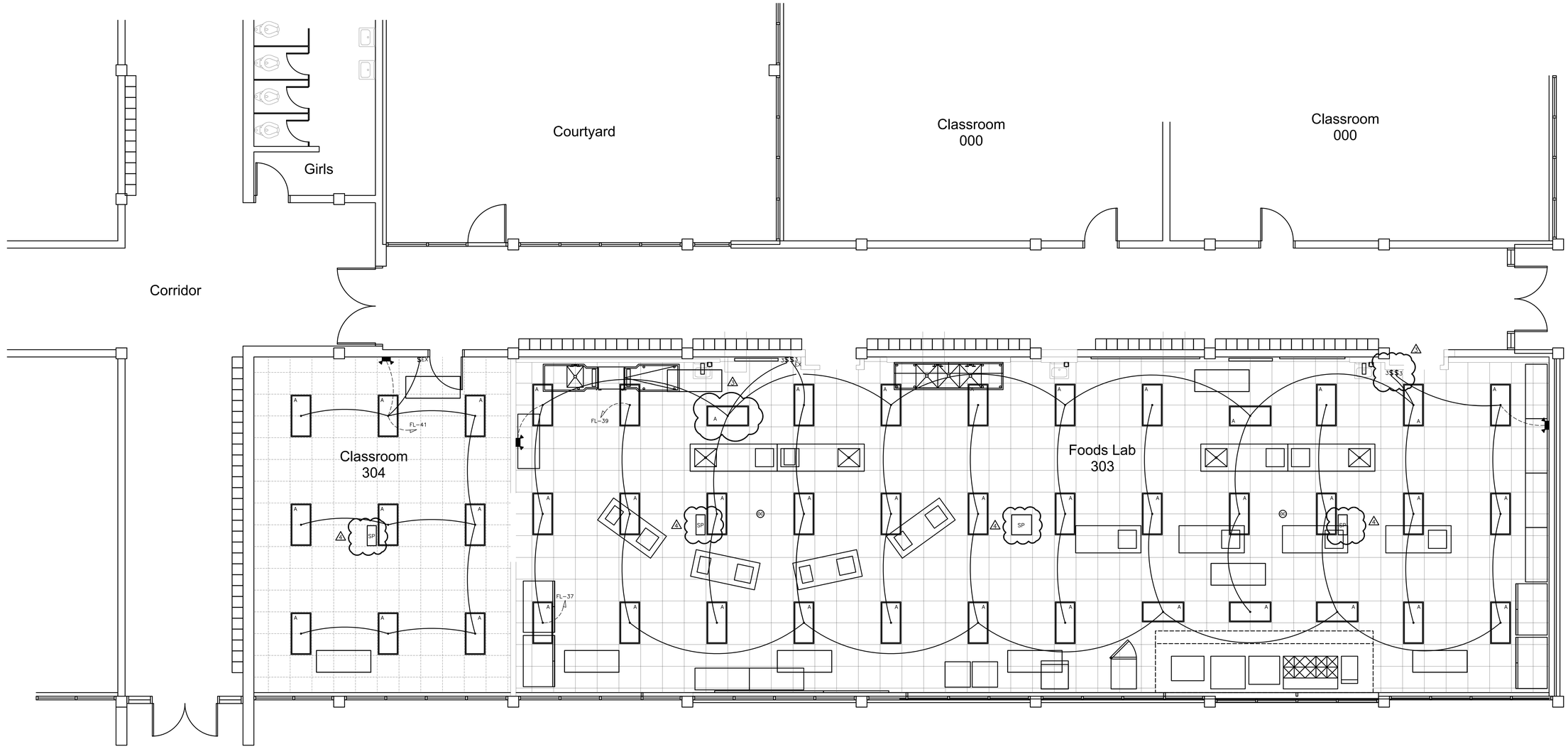
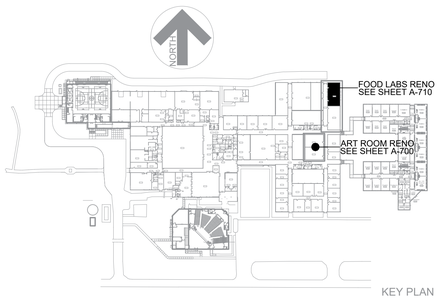


712.1 FOOD LAB RENOVATION LIGHTING PLAN
SCALE: 1/4" = 1'-0"



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3263 Hwy. 70, Beaufort, NC 28516
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Project No. 22111

Date: 26 AUGUST, 2024

Drawing no. E 712

ES Project No: ES24029
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REGISTERED PROFESSIONAL ENGINEER CAROLINA D. WILSON POU 3/5/25

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FIRE ALARM INSTALLATION NOTES:

1. FIRE ALARM SHALL BE INSTALLED BY A NOTIFIER/MANUFACTURER APPROVED INSTALLATION COMPANY.

2. E.C. OR E.C.'S REPRESENTATIVE SHALL PERFORM THOROUGH TRAINING WITH OWNER'S REPRESENTATIVES PRIOR TO OWNER OCCUPANCY OF THE BUILDING.

3. FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE TO ALL APPLICABLE STATE AND LOCAL LAWS AND IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 72.

4. ALARM SHALL HAVE A SOUND LEVEL MEETING THE dB REQUIREMENTS OF 907.6.2.1.1 OF THE NC FIRE PREVENTION CODE AND NOT LESS THAN 20 dB ABOVE AMBIENT NOISE LEVELS. (TYPICALLY, 55 dB AMBIENT NOISE PER BUSINESS OCCUPANCY. ADJUST FOR NOISY ENVIRONMENTS).

5. ANY WIRING INSTALLED IN RETURN AIR PLENUM CONDITIONS, SHALL BE EITHER PLENUM-RATED CABLE OR IN CONDUIT. WIRING INSTALLED IN EXPOSED AREAS, SHALL BE IN CONDUIT.

6. FIRE ALARM CONTRACTOR SHALL PROVIDE A FULL SET OF SHOP DRAWINGS, INCLUDING BATTERY CALCULATIONS, WIRING DIAGRAMS, AND DEVICE PRODUCT DATA TO THE AHJ FOR REVIEW AND APPROVAL PRIOR TO STARTING ROUGH-INS.

7. E.C. SHALL PROVIDE FRAMED BUILDING LAYOUT NEXT TO REMOTE ANNUNCIATOR. BUILDING LAYOUT SHALL SHOW ALL FIRE ALARM DEVICE LOCATIONS AND THEIR RESPECTIVE ADDRESSES.

8. THE EXISTING FIRE ALARM IS A NOTIFIER SYSTEM (NFS-320) MODEL.

9. ELECTRICAL CONTRACTOR SHALL FURNISH DUCT SMOKE DETECTORS. THE MECHANICAL CONTRACTOR SHALL INSTALL DUCT SMOKE DETECTORS IN DUCT WORK. THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL RELATED CONTROL WIRING.

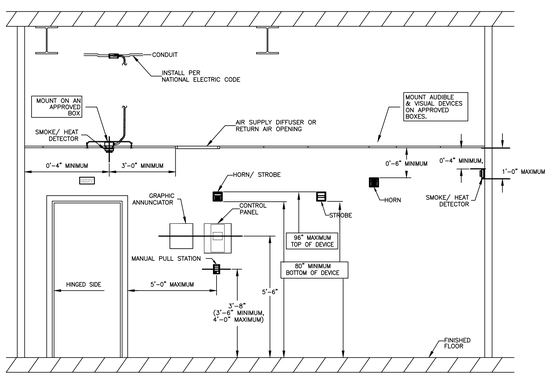
10. ALL NEW FIRE ALARM DEVICES SHOWN SHALL BE TIED INTO THE EXISTING FIRE ALARM SYSTEM.

11. E.C. SHALL BE RESPONSIBLE FOR REMOVING EXISTING FIRE ALARM ASSOCIATED DEVICES, WIRING, AND CONDUIT (AS REQUIRED) IF PLANS INDICATE NEW FIRE ALARM DEVICES TO BE INSTALLED IN THOSE AREAS.

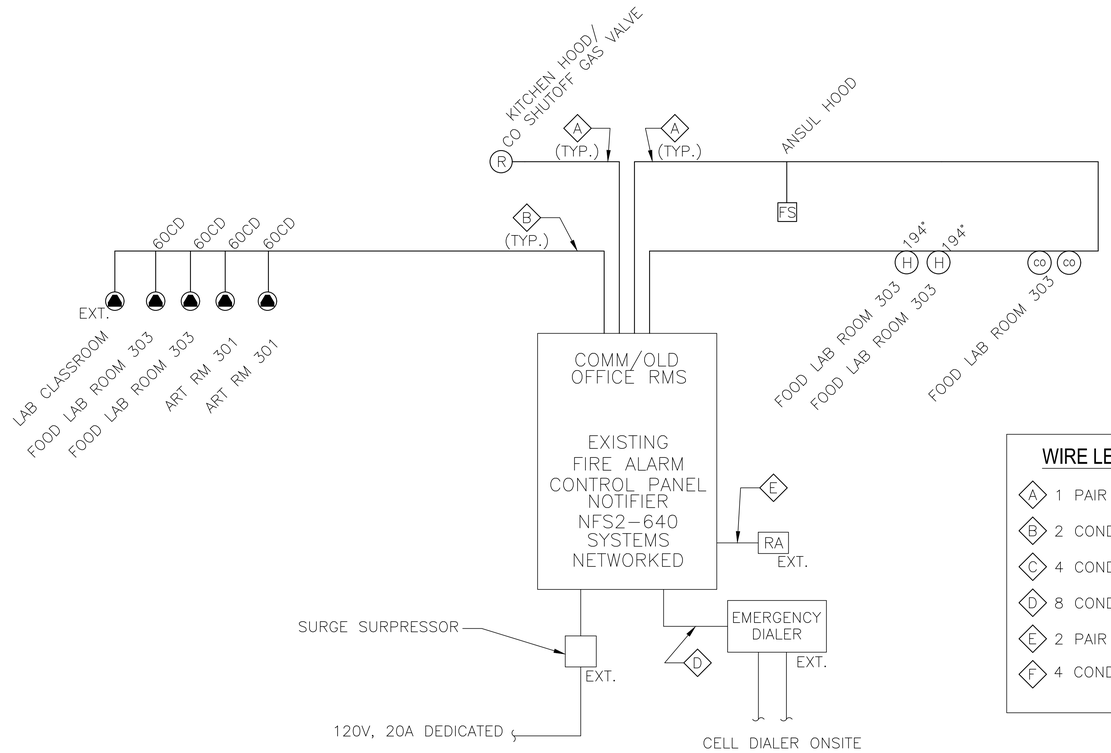
12. THE CARBON MONOXIDE DETECTORS SHOWN IN THE KITCHEN AREA. MUST BE INSTALLED NO LESS THAN, 10 FEET FROM THE GAS APPLIANCES IN ACCORDANCE TO NFPA 720. (Note: NFPA 72 REQUIRES THE CO DETECTOR UNIT TO PRODUCE A TEMPORAL 4 SOUND LEVEL PATTERN TO BE HEARD LOCALLY AT THE DEVICE LOCATION.)

13. E.C. SHALL BE RESPONSIBLE FOR CAULKING, ANY OUTSIDE WEATHERPROOF FIRE ALARM DEVICES.

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



DEVICE MOUNTING DETAIL
SCALE: NTS



WIRE LEGEND

- A — 1 PAIR #16 UNSHIELDED CABLE
- B — 2 COND. #14 THHN
- C — 4 COND. #14 THHN
- D — 8 COND. #22
- E — 2 PAIR #18 SHIELDED + 2 COND. # 14 THHN
- F — 4 COND. #18 FIRE ALARM RISER CABLE

FIRE ALARM RISER
SCALE: NTS

FIRE ALARM SYSTEM ACTION MATRIX		ACTUATE COMMON ALARM SIGNAL INDICATOR	SYSTEM ACTION ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE VOICE NOTIFICATION	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE APPROPRIATE LOCATION INDICATOR	ACTUATE ALL AUDIBLE EVACUATION SIGNALS	ACTUATE ALL VISIBLE EVACUATION SIGNALS	DISPLAY / PRINT CHANGE OF STATUS	TRANSMIT ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	FAN SHUT DOWN (ASSOC. UNIT)	FAN SHUT DOWN (GLOBAL UNITS)	GYM/MP PA SYSTEM SHUT DOWN	DAMPER SHUT DOWN	RELEASE MAGNETIC DOORS	FIRE SHUTTERS	ACTIVATE SMOKE EVAC FANS	SHUNT ALL GAS & POWER UNDER HOOD	AHU SHUTDOWN BYPASS OPERATION	COMMENTS/REMARKS
INITIATING DEVICE OR CONDITION	MANUAL ALARM STATION	X	X	X					X	X	X	X	X				X	X	X	X	X	X			
	SMOKE/HEAT SENSOR DETECTOR	X	X	X					X	X	X	X	X				X	X	X	X	X	X			
	DUCT SENSOR / DETECTOR				X	X			X			X		X		X									
	WATERFLOW SWITCH	X	X	X					X	X	X	X	X				X	X	X	X	X	X			
	TAMPER SWITCH				X	X			X			X		X											
	PANIC SWITCH												X							X					IF PROVIDED FA,CONTRACTOR..
	AHU DEFEAT SWITCH				X	X																		X	
	POST INDICATOR VALVE SWITCH				X	X			X			X		X											
	FIRE ALARM AC POWER FAILURE						X	X				X			X										
	FIRE ALARM SYSTEM LOW BATTERY						X	X				X			X										
	OPEN CIRCUIT						X	X				X			X										
	GROUND FAULT						X	X				X			X										
	NOTIFICATION APPLIANCE CIRCUIT OPEN/SHORTS						X	X				X													
	HOOD SUPPRESSION	X	X	X					X	X	X	X	X				X	X	X	X	X	X	X		
	CARBON MONOXIDE DETECTOR/BOILER ROOM OR KITCHEN				X	X			X			X	X										X		SHUT OFF ALL GAS & POWER TO ALL GAS APPLIANCES.

FIRE ALARM SYSTEM MATRIX
SCALE: N.T.S.

No.	Date	Revision

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Drawing no. FA 001

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NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 021983 DAVID WILSON POWERS

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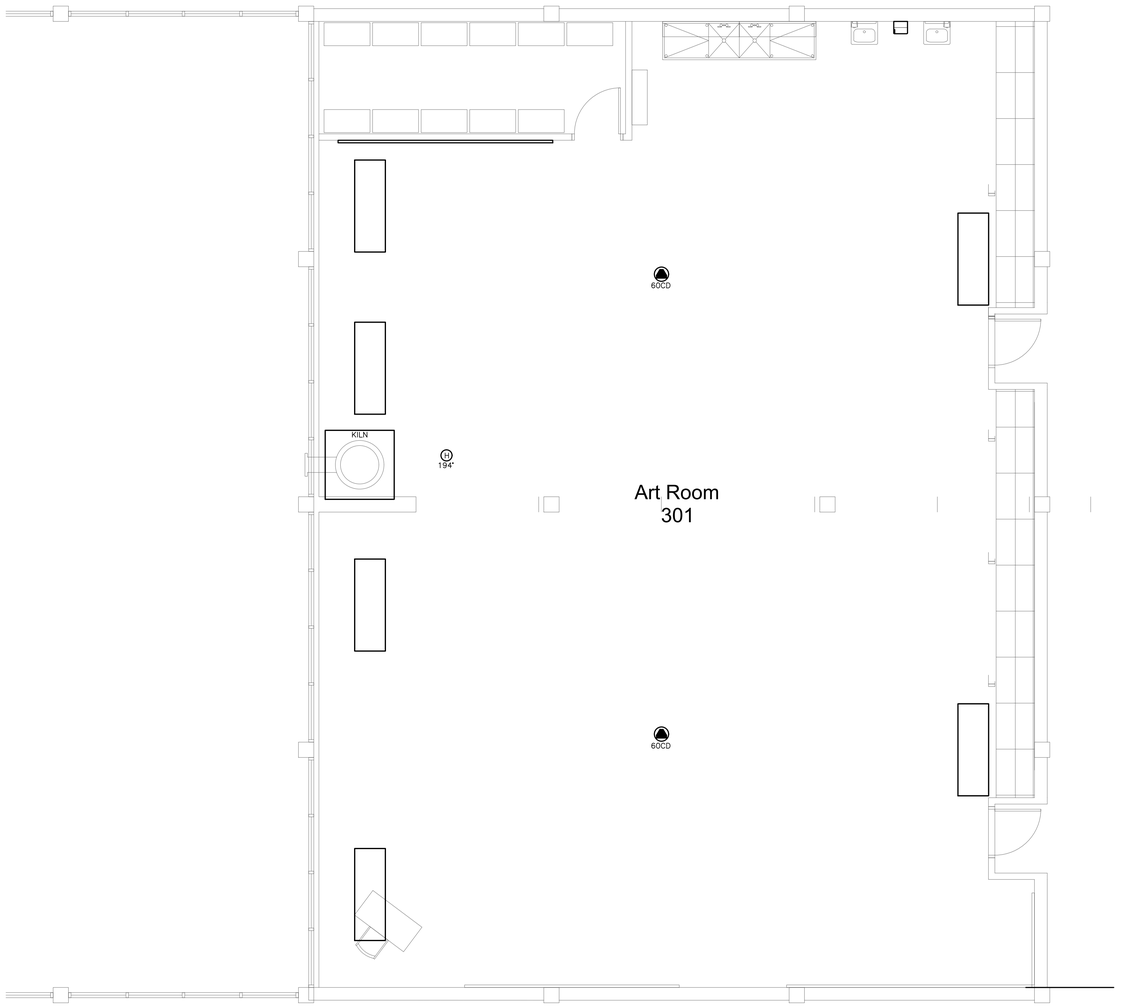
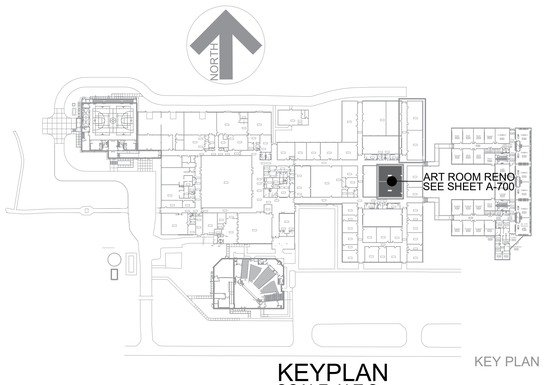


701.1 ART ROOM FIRE ALARM PLAN

SCALE: 1/4" = 1'-0"



KEYPLAN

SCALE: N.T.S

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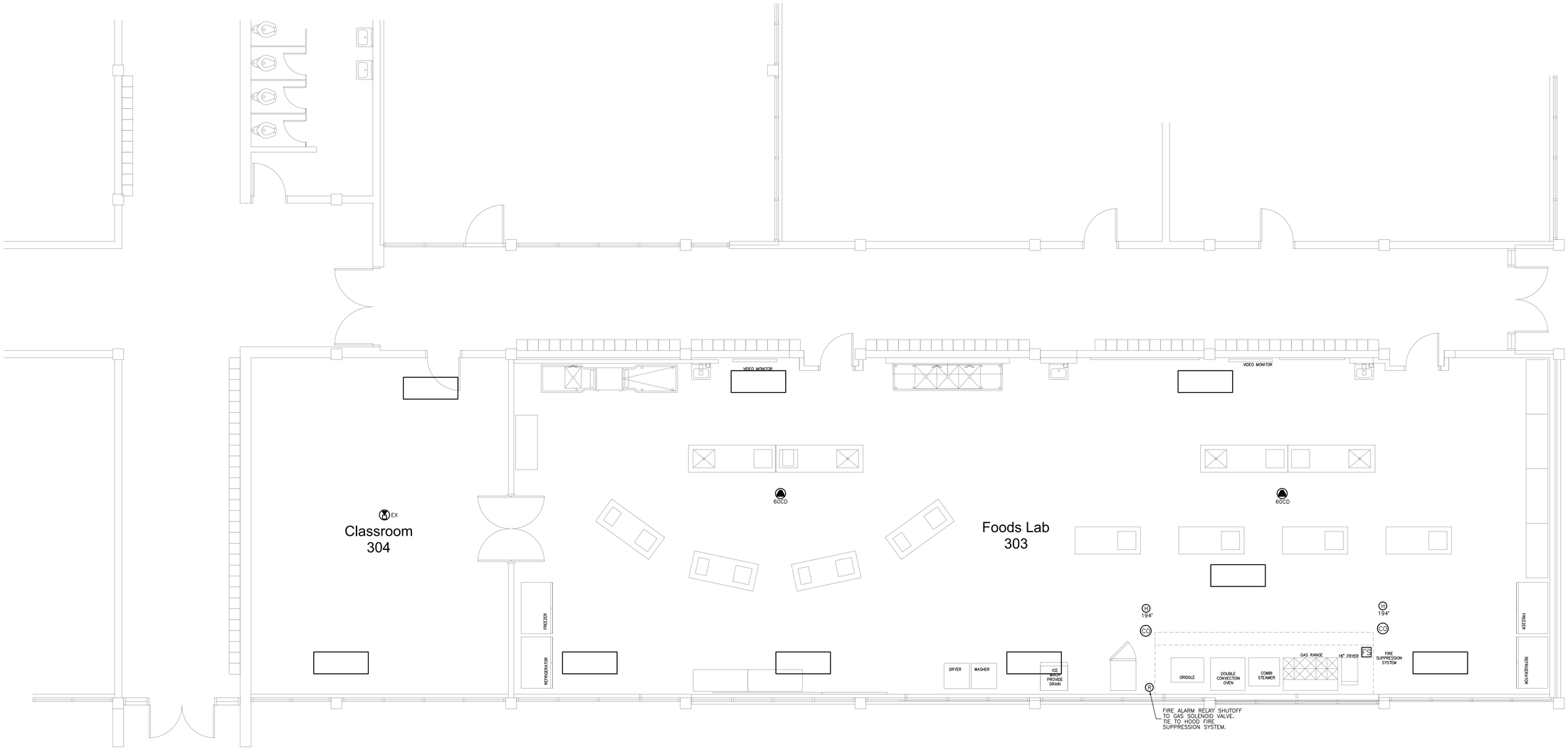
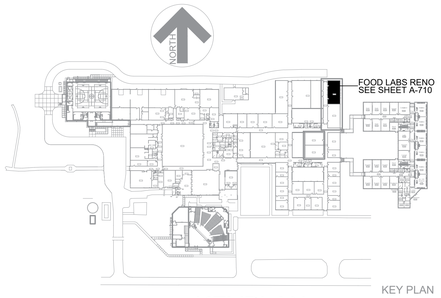


711.1 FOOD LAB FIRE ALARM PLAN

SCALE: 1/4" = 1'-0"



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