

2018 APPENDIX B BUILDING CODE SUMMARY

Name of Project: The Bake Lab
 Address: 67 Marshbanks Street Lillington, NC Zip Code: 27546
 Proposed Use: Business
 Owner or Authorized Agent: _____ Phone # _____ E-Mail: _____
 Owned By: City / County Private State
 Code Enforcement Jurisdiction: City County Harnett State

LEAD DESIGN PROFESSIONAL: Joe T. Smith, Jr.

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Building	Smith Engineering & Design	Joe T. Smith, Jr.	24916	(919)-736-2141	smithengineeringnc@hotmail.com
Civil					
Electrical	Smith Engineering & Design	Joe T. Smith, Jr.	24916	(919)-736-2141	smithengineeringnc@hotmail.com
Fire Alarm					
Plumbing	Smith Engineering & Design	Joe T. Smith, Jr.	24916	(919)-736-2141	smithengineeringnc@hotmail.com
Mechanical	Smith Engineering & Design	Joe T. Smith, Jr.	24916	(919)-736-2141	smithengineeringnc@hotmail.com
Sprinkler-Standpipe					
Structural					
Retaining Walls >5' High					
Other					

2018 NC BUILDING CODE: New Construction Shell/Core 1st Time Interior Completion
 Addition Phased Construction-Shell Core

2018 NC EXISTING CODE: Prescriptive Alteration Level I Historic Property
 Repair Alteration Level II Change of Use
 Chapter 14 Alteration Level III

CONSTRUCTED: (date) _____ **CURRENT USE(s)** (Ch. 3) **Business**
RENOVATED: (date) _____ **PROPOSED USE(s)** (Ch. 3) **Business**

BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B

Sprinklers: NO Partial NFPA 13 NFPA 13R NFPA 13D

Standpipes: NO Class: I II III Wet Dry

Primary Fire District: NO YES (Primary) Flood Hazard Area: No YES

Special Inspections Required: NO YES

GROSS BUILDING AREA TABLE

FLOOR	EXISTING (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTAL
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor (Upper Level)	9,075	0	9,075
Basement (Lower Level)			
TOTAL:	9,075	0	9,075

ALLOWABLE AREA 1,238 SQ. FT. THIS UNIT

Primary Occupancy: A-1 A-2 A-3 A-4 A-5
 Business
 Educational
 Factory F-1 Moderate F-2 Low
 Hazardous H-1 Detonate H-2 DeFlagrate H-3 Combust H-4 Health H-5 HMP
 Institutional I-1 I-2 I-3 I-4
 I-3 Condition 1 2
 I-2 Condition 1 2
 I-1 Condition 1 2 3 4 5

Mercantile
 Residential R-1 R-2 R-3 R-4
 Storage S-1 Moderate S-2 Low High-Piled
 Parking Garage Open Enclosed Repair Garage
 Utility and Misc.

Accessory Occupancy Classification(s): _____
Incidental Uses: (Table 509) _____
 This separation is not exempt as a Nonseparated Use (see exceptions).
Special Uses: (Chapter 4 - List Code Sections): _____
Special Provisions: (Chapter 5 - List Code Sections): _____

Mixed Occupancy: NO YES Secondary occupancy type(s): _____ Separation: _____ Hour Exception: _____

Non-Separated Use (508.3)
 The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
 Separated Use (508.4) See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} = \leq 1.0$$

$$\frac{N/A}{N/A} + \frac{N/A}{N/A} = N/A \leq 1.0$$

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A							

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 ⁴ AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3}
1	Business	9,075	9,000	6,750	15,750

¹ Frontage area increases from Section 506.2 are computed thus:
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = 440' (F)
 b. Total Building Perimeter = 440' (P)
 c. Ratio (F/P) = 1 (F/P)
 d. W = Minimum width of public way = 30' (W)
 e. Percent of frontage increase $k = 100 [(F/P) - 0.25] \times W/30 = 75$ (%)

² Unlimited area applicable under conditions of Section 507.
³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (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 Table 412.3.1.
⁵ Frontage increase is based on the unspinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	40'-0"	18'-0"	
Building Height in Stories (Table 504.4)	2	1	

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
		REQUIRED	PROVIDED (W/ N/A * REDUCTION)				
Structural frame, including columns, girders, in-situ		0 HOUR	0 HOUR				
Bearing walls							
Exterior							
North	N/A	0 HOUR	N/A				
East	N/A	0 HOUR	N/A				
West	N/A	0 HOUR	N/A				
South	N/A	0 HOUR	N/A				
Interior							
Nonbearing walls and partitions							
Exterior							
North	>10'	0 HOUR	0 HOUR				
East	>10'	0 HOUR	0 HOUR				
West	>10'	0 HOUR	0 HOUR				
South	>10'	0 HOUR	0 HOUR				
Interior walls and partitions		0 HOUR	0 HOUR				
Floor Construction including supporting beams and joists		0 HOUR	0 HOUR				
Roof Construction including supporting beams and joists		0 HOUR	0 HOUR				
Roof Ceiling Assembly		N/A	N/A				
Columns Supporting Roof		0 HOUR	0 HOUR				
Shafts Enclosures - Exit		N/A	N/A				
Shafts Enclosures - Other		N/A	N/A				
Corridor Separation		N/A	N/A				
Occupancy/Fire Barrier Separation		N/A	N/A				
Party/Fire Wall Separation		N/A	N/A				
Smoke Barrier Separation		N/A	N/A				
Smoke Partition		N/A	N/A				
Tenant/Dwelling Unit/ Sleeping Unit Separation		0 HOUR	0 HOUR				
Incidental Use Separation		N/A	N/A				

*Indicates section number permitting reduction.

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30'	Unprotected, Non-sprinklered	No Limit	<50%

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
 Exit Signs: No Yes
 Fire Alarm: No Yes
 Smoke Detection Systems: No Yes
 Carbon Monoxide Detection: No Yes

NUMBER & ARRANGEMENTS OF EXITS

FLOOR/ROOM	MIN # OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS (SECTION 1015.2)	
	REQUIRED	SHOWN	ALLOWABLE (Table 1016.1)	ACTUAL	REQ'D DISTANCE BETWEEN EXITS	ACTUAL DISTANCE shown on plans
Business	2	2	200'	40'	30'	55'

¹ Corridor dead ends (Section 1017.3)
² Buildings with single exits (Table 1019.2). Spaces with one means of egress (Table 1015.1)
³ Common path of travel (Section 1014.3)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA sq ft	(b) AREA PER OCCUPANT (TABLE 1004.1.1)	CALCULATED OCCUPANT LOAD	(c) EGRESS WIDTH PER OCCUPANT (SECT 1005.1)	EXIT WIDTH (in)		2346B
					REQ'D WIDTH (a/b)xc	ACTUAL WIDTH shown on plans	
Business	1,238	100	13	N/A .20"	N/A	2.6"	N/A 68"

¹ See Table 1004.1.1 to determine whether net or gross area is applicable
² Min stair width (Sect 1009.1); Min corridor width (Sect 1017.2); Min door width (Sect 1008.1)
³ Min width of exit passageway (Sect 1021.2)
⁴ See Section 1004.5 for converging exits
⁵ Loss of 1 means of egress is not to reduce available capacity to less than 50% of total required (Section 1005.1)
⁶ Assembly occupancies (Section 1025)

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # PARKING SPACES		# ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE SPACES PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	8' ACCESS AISLE	
Existing						
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATER CLOSETS			URINALS	LAVATORIES			UTILITY SINK	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
EXISTING	0	0	1	0	0	0	1	0	0	0
NEW	0	0	0	0	0	0	1	0	0	0
REQUIRED	0	0	1	0	0	0	1	0	0	0

SPECIAL APPROVALS

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

STRUCTURAL DESIGN

DESIGN LOADS: Existing Building

Importance Factors: Snow (I_s) _____
 Seismic (I_e) _____
 Live Loads: Roof _____
 Mezzanine _____
 Floor _____
 Ground Snow Load: _____
 Wind Loads: Basic Wind Speed _____
 Exposure Category _____

SEISMIC CATEGORY A B C D

Provide the following Seismic Design Parameters:
 Occupancy Category (Table 1604.5) I II III IV
 Spectral Response Acceleration S_s %g S₁ %g
 Site Classification (ASCE-7) A B C D E F
 Data source: Field Test Presumptive Historical Data

Basic Structural System: (check one)
 Bearing Wall Dual W/ Special Moment Frame
 Building Frame Dual W/ Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
 Architectural, Mechanical, Components Anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:
 Field Test (provide copy of test report) _____ psf
 Presumptive Bearing Capacity _____ psf
 Pile Size, Type, and Capacity _____

SPECIAL INSPECTIONS REQUIRED: Yes No

ENERGY SUMMARY

ENERGY REQUIREMENTS:
 The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: (If checked, the remainder of this section is not applicable.)
 Exempt Building: Provide code or statutory reference: _____
 Climate Zone: 3 4 5
 Method of Compliance: _____
 Energy Code: Performance Prescriptive Trade-Off
 ASHRAE 90.1: Performance Prescriptive Trade-Off
 Other: Performance (specify source) _____

THERMAL ENVELOPE:

Roof/Ceiling Assembly (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____
 Skylights in each assembly _____
 U-Value of skylight _____
 Total square footage of skylights in each assembly _____

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 assembly _____
 Solar heat gain coefficient: _____
 Projection factor: _____
 Door R-Values: _____

Walls below grade (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____

Floors over unconditioned space (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____

Floors slab on grade
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____
 Horizontal/vertical requirement _____
 Slab heated _____

NOTICE TO CONTRACTOR
 All construction shall comply with current NC Building Code and is subject to field inspection and enforcement.

APPROVED
 (Seal of Joe T. Smith, Jr., Professional Engineer, License No. 024916, State of North Carolina, expires 5-24-21)

06/16/2021

HARNETT COUNTY
 NORTH CAROLINA

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PROFESSIONAL ENGINEER
 STATE OF NORTH CAROLINA
 LICENSE NO. 024916
 EXPIRES 5-24-21
 JOE T. SMITH, JR.

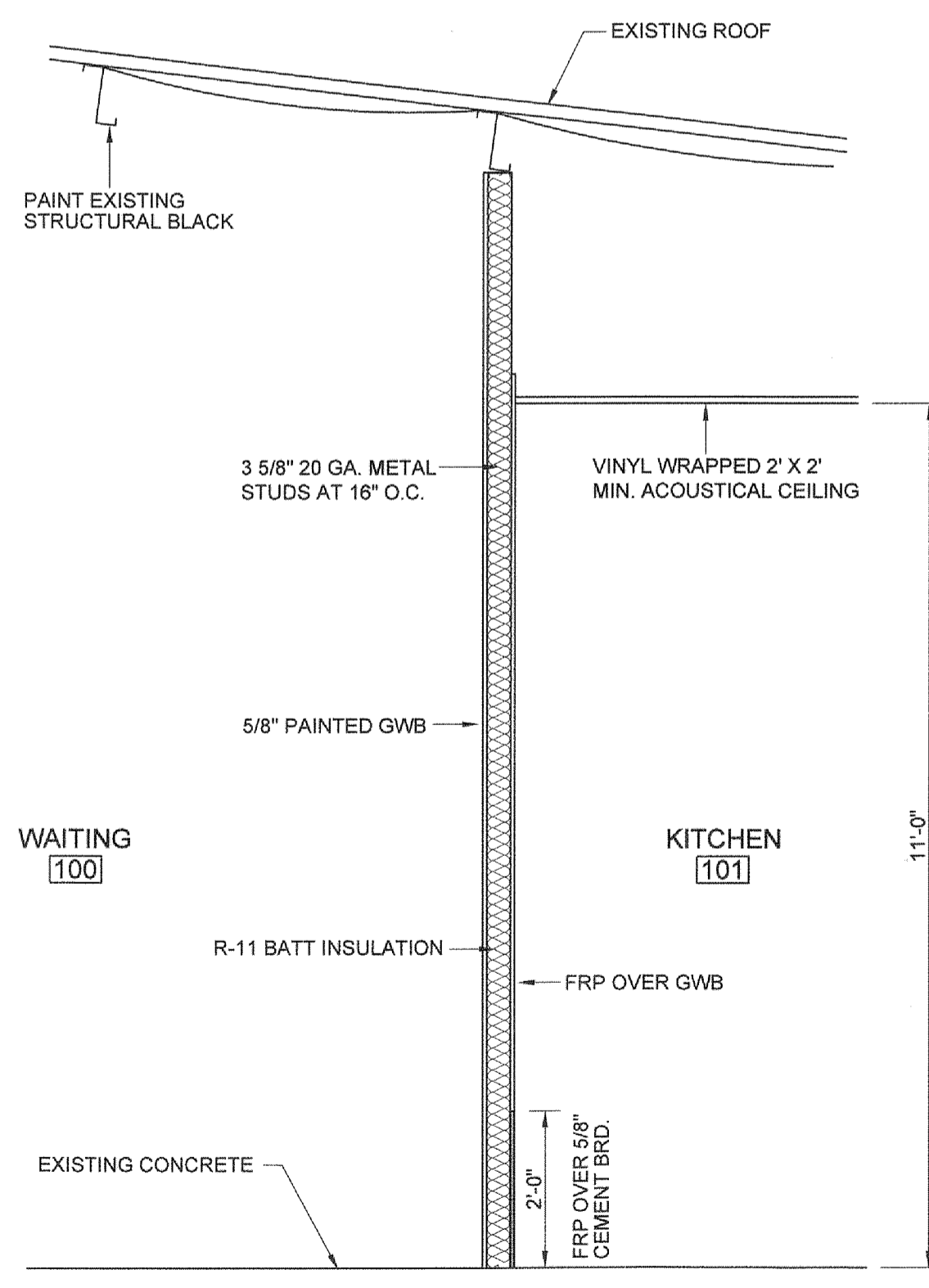
REVISIONS

REV.	DATE	DESCRIPTION

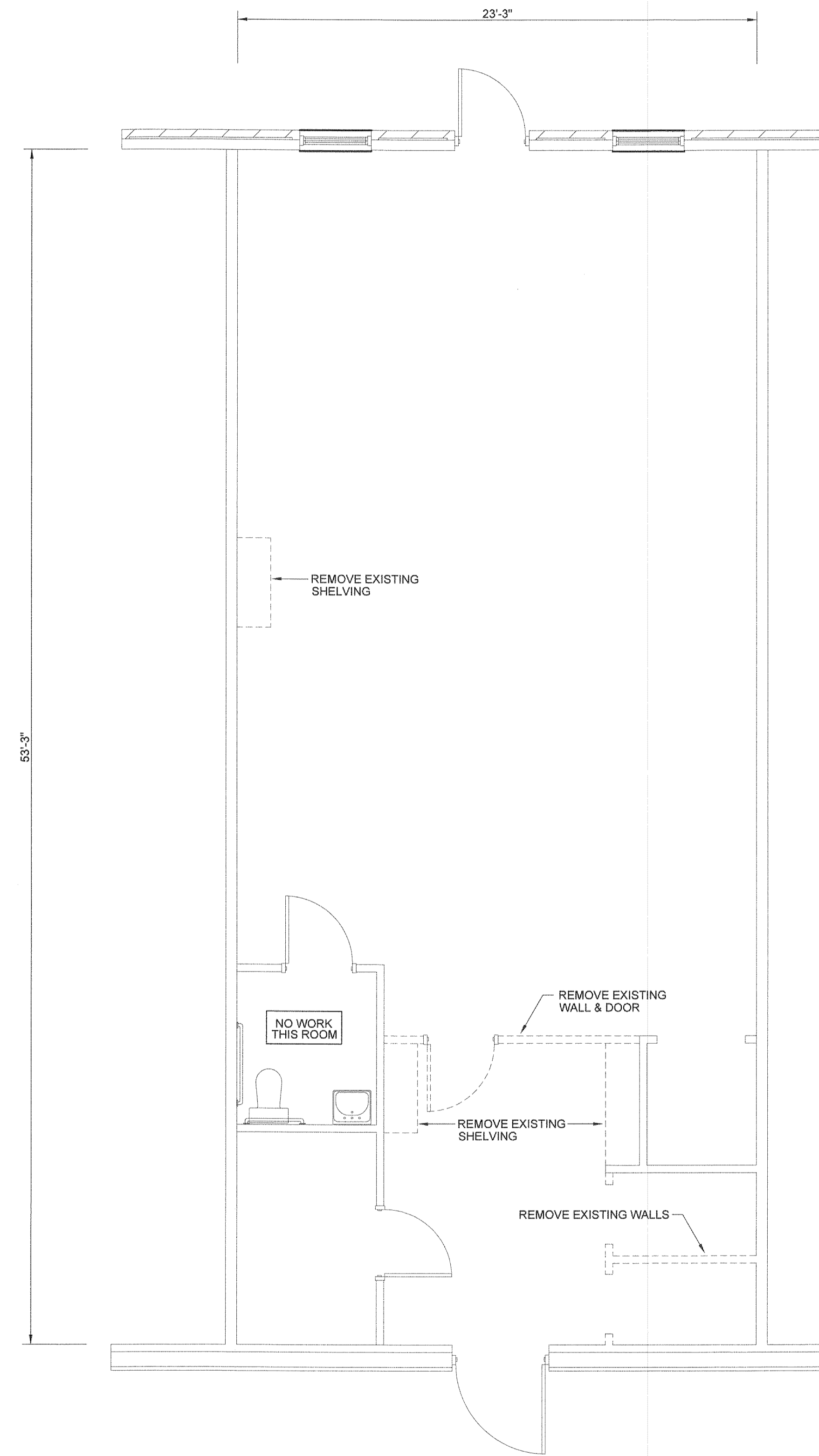
The Bake Lab
 67 Marshbanks St.
 Lillington, NC 27546

DATE: 24 May 2021
 DRAWN BY: J.S.
 SCALE: 1/4" = 1'-0"

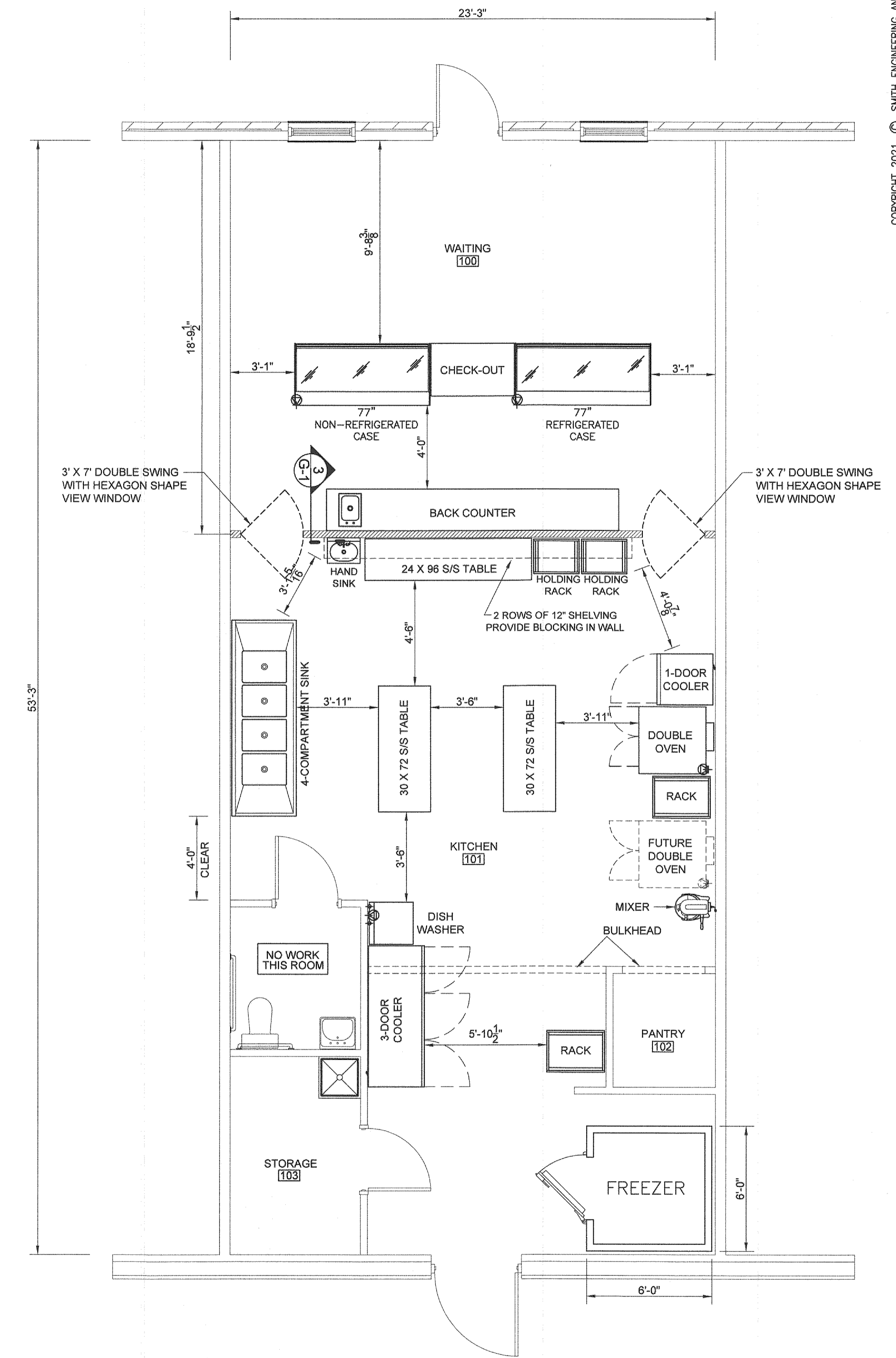
ROOM FINISH SCHEDULE											
NO.	DESCRIPTION	FLOORS				BASE	WALLS	CEILING	CLG. HGT.		
		EPOXY SHEET VINYL	EXPOSED CONCRETE			EPOXY BASE SHEET VINYL TURNED UP 5"	PAINTED GWB	FRP OVER GWB (24" CEMENT BOARD)	2' X 2' ACOUSTICAL LAY-IN (VINYL WRAPPED)		
		1	2	3	4	5	6	1	2	3	
100	WAITING	1						1			VARIES
101	KITCHEN		2					2	1		± 9'-0" / 11'-0"
102	PANTRY		2					2	1		± 9'-0"
103	STORAGE		2					2	1		± 9'-0"



3 SECTION
SCALE: 1/2"=1'-0"



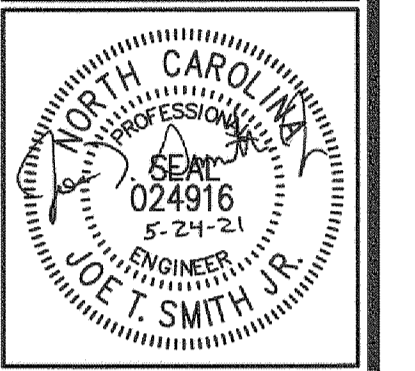
2 DEMOLITION PLAN
SCALE: 1/4"=1'-0"



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

— DENOTES EXISTING WALLS
 // DENOTES PROPOSED WALLS

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G-1

ELECTRICAL NOTES:

- ELECTRICAL PLANS ARE INTENDED TO PROVIDE INFORMATION FOR INSTALLATION OF A COMPLETE ELECTRICAL SYSTEM. PROVIDE ALL ESSENTIAL LABOR, MATERIALS & DEVICES REQUIRED TO PRODUCE A QUALITY END PRODUCT.
- CONTRACTOR SHALL REVIEW & BECOME FAMILIAR WITH THE WORK OF ALL TRADES FOR PURPOSES OF COORDINATION AND ROUTING. CONTRACTOR SHALL PROVIDE REQUIRED PLANNING, COORDINATION AND SEQUENCING OF ELECTRICAL INSTALLATION WITH BUILDING COMPONENTS AND OTHER TRADES.
- ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC). WORKMANSHIP SHALL MEET OR EXCEED INDUSTRY STANDARDS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS, STARTERS, DEVICES AND ELECTRICAL COMPONENTS UNLESS SPECIFICALLY NOTED AS PROVIDED BY OTHERS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LINE AND LOAD SIDE WIRING INCLUDING ALL TERMINATIONS TO EQUIPMENT PROVIDED UNDER OTHER TRADES. POWER WIRING TO CONTROL DEVICES SHALL BE PROVIDED BY E.C.. INTERLOCK WIRING SHALL BE PROVIDED BY THE CONTRACTOR INSTALLING THE CONTROL DEVICE.
- ALL WIRING, PANELBOARDS, DEVICES AND OTHER LIKE MATERIALS SHALL BE UL LISTED & LABELED. ALL MATERIALS SHALL MEET THE NEC FOR THE INTENDED USE AND INSTALLED IN ACCORDANCE WITH THE NEC.
- PROVIDE THHN/THWN COPPER WIRE. PROVIDE A MINIMUM WIRE SIZE OF #12. ALL WIRE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS AND CONDUIT ON PLANS AND SCHEDULES REFLECT AMPACITIES PER NEC 310-16 75C RATING. CONTRACTOR SHALL VERIFY ALL TERMINATIONS, LUGS, ETC. ARE RATED FOR USE PER NEC 110-4C. OTHERWISE PROVIDE CONDUCTOR AND CONDUIT SIZED PER LOWEST TEMPERATURE RATING OF ANY TERMINATION WITHIN A CIRCUIT. A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR ALL CIRCUITS.
- PROVIDE MC CABLE FOR ALL SINGLE PHASE BRANCH CIRCUITS 30 AMPS AND SMALLER. PROVIDE CONDUIT FOR ALL OTHER WIRING. EMT OR RIGID SHALL BE USED WHERE EXPOSED TO PHYSICAL DAMAGE. CONDUIT ABOVE GRADE SHALL BE STEEL. CONDUIT BELOW GRADE MAY BE PVC CHANGING TO STEEL IN THE ELBOW TURNING UP. EMT SHALL NOT BE USED IN DIRECT CONTACT WITH THE EARTH OR WHERE EXPOSED TO SEVERE PHYSICAL DAMAGE. FITTINGS ON STEEL CONDUIT SHALL BE COMPRESSION TYPE.
- PROVIDE ONE-INCH EMPTY CONDUITS EXTENDING ABOVE CEILING FOR ALL TELEPHONE AND DATA OUTLETS SHOWN ON PLANS. PROVIDE PROTECTIVE BUSHINGS ON ENDS OF CONDUIT. ALL CABLING IS PROVIDED BY OTHERS.
- PROVIDE 3/4-INCH EMPTY CONDUITS TERMINATING ABOVE THE CEILING FOR ALL HVAC THERMOSTATS. JUNCTION BOXES SHALL MATCH ORIENTATION OF THERMOSTATS PROVIDED BY M.C.. MOUNT JUNCTION BOXES 48-INCHES A.F.F. UNLESS NOTED OTHERWISE. PROVIDE PROTECTIVE BUSHINGS ON ENDS OF CONDUIT.
- PROVIDE TYPE WRITTEN PANEL SCHEDULES IN EACH PANEL INDICATING THE LOAD DESCRIPTION FOR EACH BREAKER. LABEL PANELS ON PANEL FACE WITH PHENOLIC LABELS INDICATING PANEL NUMBER OR LETTER DESIGNATION, VOLTAGE AND PHASE.
- PROVIDE FUSED AND NON-FUSED DISCONNECT SWITCHES AS INDICATED ON PLANS. DISCONNECTS LOCATED OUTSIDE SHALL BE NEMA-3R. PROVIDE REJECTION CLIPS IN FUSED DISCONNECTS.
- PROVIDE LIGHTING AS SCHEDULED IN THE FIXTURE SCHEDULE OR OTHERWISE NOTED ON PLANS. LIGHTING INSTALLED IN SUSPENDED CEILINGS SHALL BE SUPPORTED INDEPENDENTLY OF THE CEILING GRID SYSTEM.
- PROVIDE EMERGENCY AND EXIT LIGHTS AS SHOWN ON PLANS. POWER SHALL BE PROVIDED FROM LIGHTING CIRCUITS ON THE UNSWITCHED LEG OF THE CIRCUIT SUCH THAT POWER TO THE EMERGENCY AND EXIT LIGHTS IS NOT DISCONNECTED WHEN NORMAL LIGHTING IS OFF. EXTERIOR EMERGENCY LIGHTS SHALL BE WIRED SUCH THAT PHOTOCELL AND/OR TIME CLOCK OPERATION DOES NOT DISCONNECT POWER TO BATTERIES.
- RECEPTACLES SHALL BE 20 AMP, 120V UNLESS NOTED OTHERWISE.
- RECEPTACLES ABOVE COUNTERTOPS AND ADJACENT TO SINKS & LAVATORIES SHALL BE GROUND FAULT. KITCHEN RECEPTACLES SHALL BE GROUND FAULT.
- WALL SWITCHES SHALL BE SINGLE POLE, 20 AMP, 120/277V.
- PROVIDE STANDARD SIZE WALL PLATES FOR ALL DEVICES AND BLANK WALL PLATES FOR JUNCTION BOXES. WALL PLATES SHALL BE HIGH IMPACT, SMOOTH NYLON, COLOR TO MATCH DEVICE.

ELECTRICAL LEGEND		
SYM.	DESCRIPTION	REMARKS
Ⓧ	JUNCTION BOX	DOUBLE GANG UNO
Ⓛ	NON-FUSED DISCONNECT	-
Ⓛ	FUSED DISCONNECT	-
Ⓞ	OCCUPANCY SENSOR	-
Ⓢ	SWITCH	MOUNT 48" TOD AFF
Ⓢ _D	DIMMER SWITCH	MOUNT 48" TOD AFF COORDINATE WITH BALLAST
Ⓢ ₃	3 WAY SWITCH	MOUNT 48" TOD AFF
Ⓢ ₄	4 WAY SWITCH	MOUNT 48" TOD AFF
Ⓡ	RECEPTACLE	MOUNT 16" BOD AFF
Ⓡ _{IG}	ISOLATED GROUND RECEPTACLE	MOUNT 16" BOD AFF
Ⓡ _{WP}	GROUND FAULT, WEATHERPROOF RECEPT.	MOUNT 24" BOD AFG
Ⓡ _S	SPECIAL RECEPTACLE	-
Ⓡ _{DD}	DOUBLE DUPLEX RECEPTACLE	-
Ⓡ _{CI}	CIRCUIT IDENTIFIER	-
Ⓡ _{PO}	PHONE OUTLET	DOUBLE GANG UNO
Ⓡ _{DO}	DATA/PHONE OUTLET	DOUBLE GANG UNO

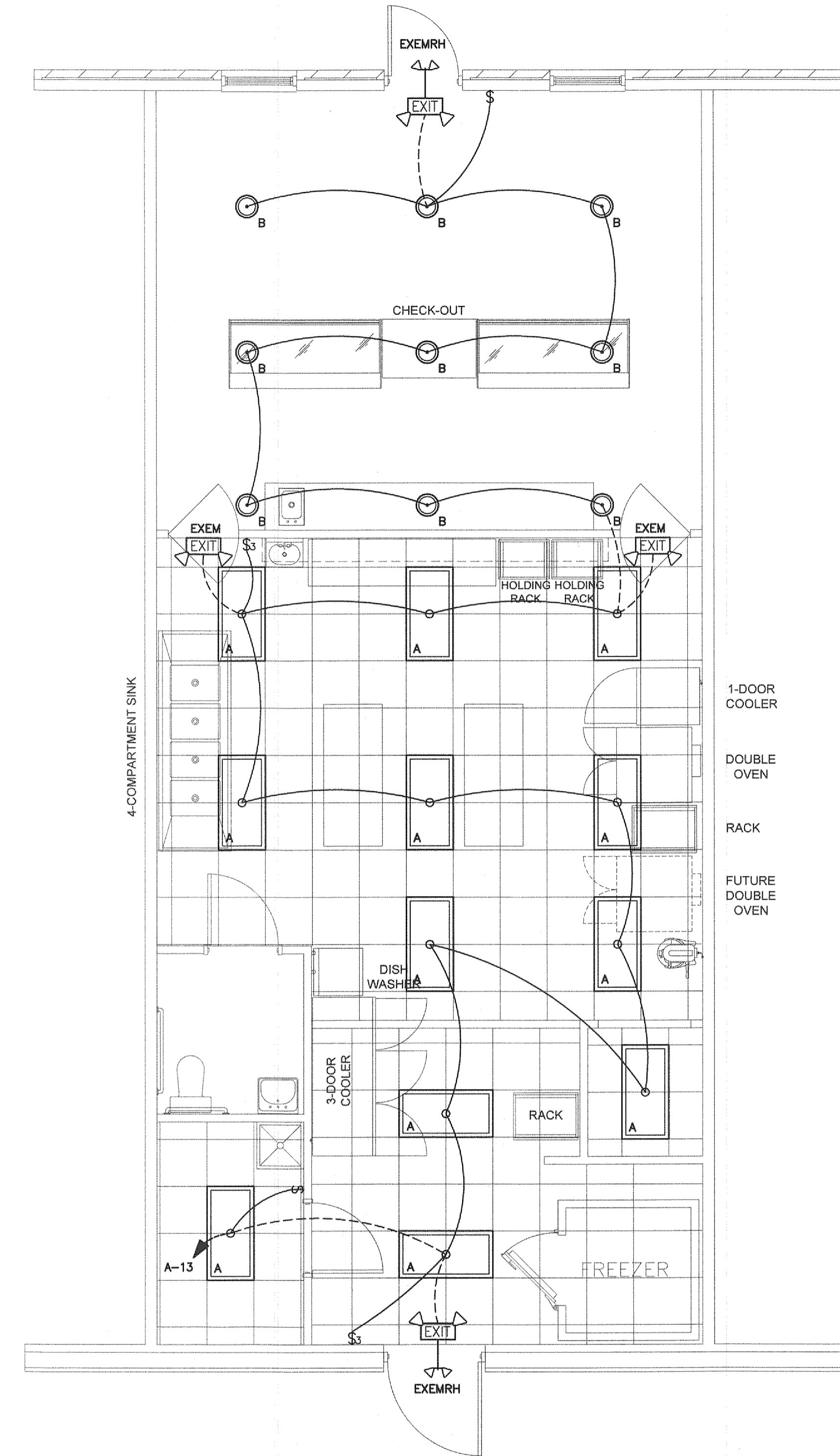
- NOTES:**
- STANDARD MOUNTING HEIGHTS OF DEVICES SHALL BE AS LISTED IN LEGEND. SPECIFIC MOUNTING HEIGHT OF A DEVICE MAY VARY AS NOTED ON PLANS.
 - E.C. SHALL COORDINATE COLOR SELECTION OF DEVICES AND COVERPLATES WITH ARCHITECT, OWNER AND/OR G.C.
 - PROVIDE EQUIPMENT SHOWN BY HUBBELL, PASS & SEYMOUR, COOPER WIRING DEVICES, OR EQUAL PRODUCT.

ABBREVIATIONS:

G.C.	GENERAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
UNO	UNLESS NOTED OTHERWISE
BOD	BOTTOM OF DEVICE
TOD	TOP OF DEVICE

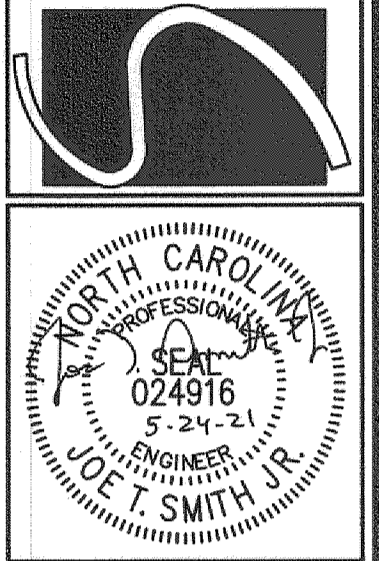
LIGHT FIXTURE SCHEDULE									
MARK	DESCRIPTION	LAMP			BALLAST		FIXTURE INPUT WATTS	VOLTS	NOTES
		TYPE	NO.	WATTS	TYPE	NO.			
A	2x4 LAY-IN TROFFER	LED	-	-	-	-	40	120	
B	PENDANT	LED	-	-	-	-	18	120	SELECTED BY OWNER
EX	EXIT LIGHT	LED	-	-	-	-	6	120	
EXEM	EXIT/EMER. LIGHT	LED	2	6	-	-	12	120	
EXEMRH	EXIT/EMER. LIGHT WITH REMOTE HEADS	LED	4	6	-	-	24	120	
EM	EMERGENCY LIGHT	LED	2	6	-	-	12	120	

- NOTES:**
- PROVIDE EXIT LIGHTS WITH SINGLE OR DOUBLE-FACE AS REQUIRED, CHEVRON DIRECTIONAL INDICATORS, MOUNTING BRACKETS & NICKEL CADMIUM BATTERY BACKUP.
 - PROVIDE ALL LED FIXTURES WITH LAMPS OF MODERATE TONE (3500K) AND GOOD CRI (COLOR RENDERING INDEX).
 - PROVIDE FIXTURES BY LITHONIA, COLUMBIA, HUBBLE, OR EQUAL PRODUCT.



1
E-1
ELECTRICAL PLAN - LIGHTING LAYOUT
SCALE: 1/4"=1'-0"

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REV#	DATE	DESCRIPTION

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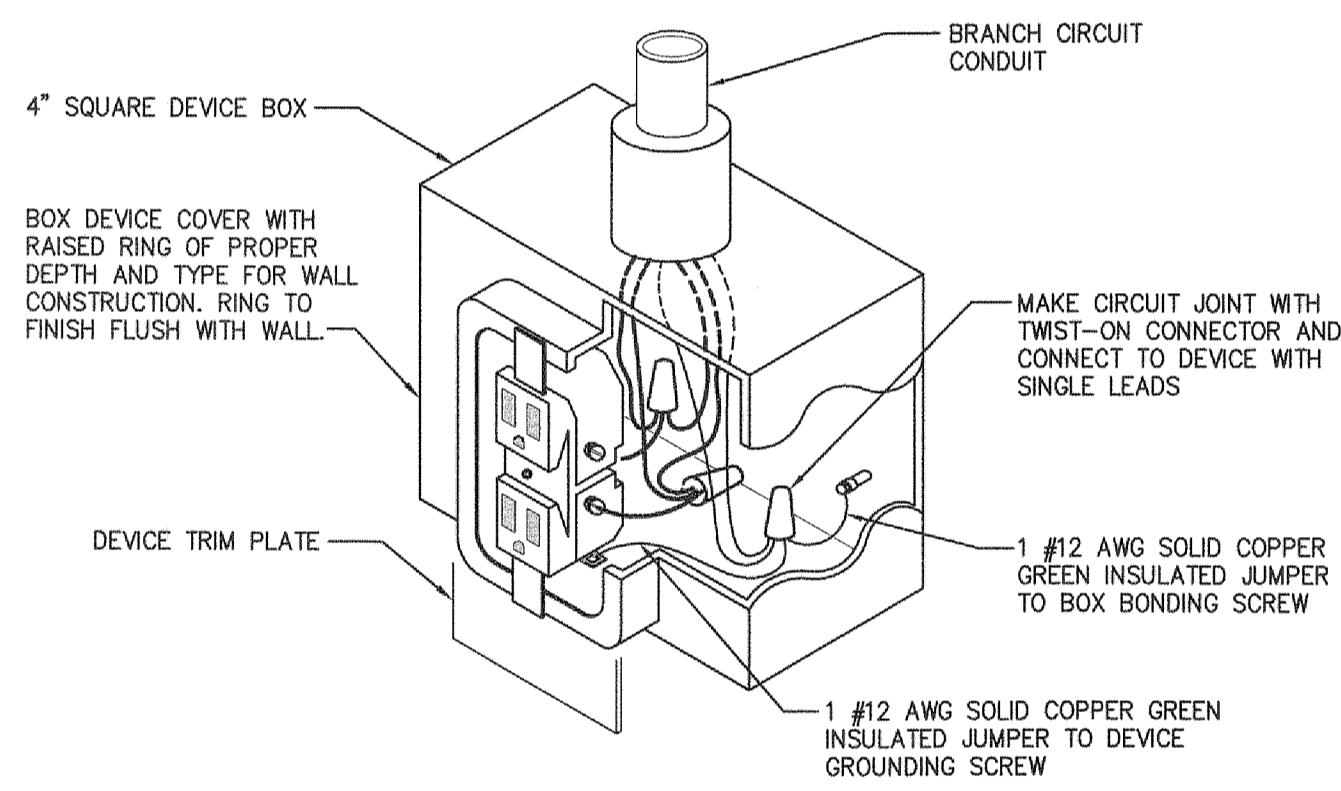
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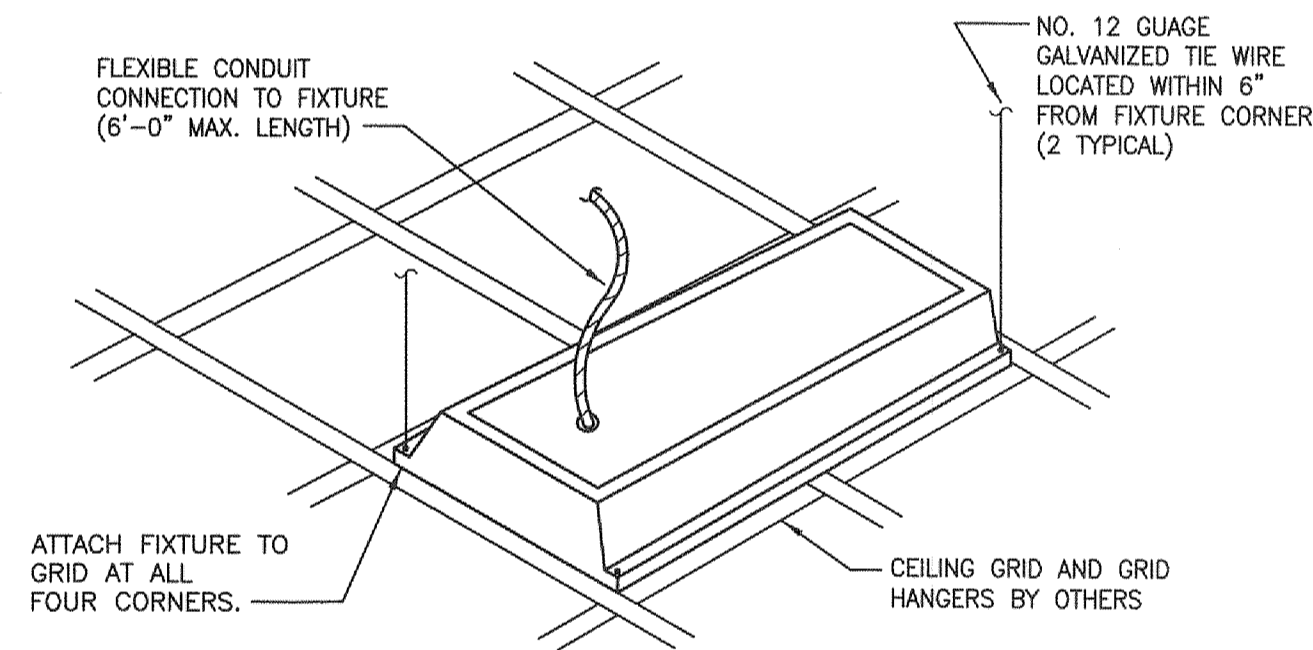
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PANELBOARD SCHEDULE									
EXIST. PANEL "A"	SURFACE MOUNT			400 AMP		3Ø, 4 WIRE			
MAIN LUG ONLY				120/208 VOLT					
NEMA 1				400 AMP (BUS RATING)					
LOAD SERVED	WIRE SIZE	CKT NO.	PHASE		CKT NO.	WIRE SIZE	LOAD SERVED		
REFRIGERATED CASE	#12	1	20	A	2	#12	CONVECTION OVEN		
NON-REFRIGERATED CASE	#12	3	20	B	4	#12	CONVECTION OVEN		
RECEPTACLES	#12	5	20	C	6	#12	CONVECTION OVEN		
RECEPTACLES	#12	7	20	A	8	#12	CONVECTION OVEN		
DISHWASHER	#12	9	20	B	10	#12	CONVECTION OVEN		
SIGN	EXIST.	11	20	C	12	#12	CONVECTION OVEN		
LIGHTS	#12	13	20	A	14	#12	MIXER		
1-DOOR COOLER	#12	15	20	B	16	#12	MIXER		
3-DOOR COOLER	#12	17	20	C	18	#12	WATER HEATER		
EXIST. RECEPT. & LIGHTS	EXIST.	19	20	A	20	#12	WATER HEATER		
PORTABLE AIR FILTER	#12	21	20	B	22	#12	WATER HEATER		
PORTABLE AIR FILTER	#12	23	60	C	24	EXIST.	EXISTING WATER HEATER		
EXIST. HEAT PUMP	EXIST.	25	90	A	26	EXIST.	EXIST. R.R. RECEPTACLE		
		27	90	B	28	#12	FREEZER EVAPORATOR		
EXIST. PANEL "B"	EXIST.	29	31	C	30	#12	FREEZER CONDENSER		
		33	20	A	32	#12	FREEZER CONDENSER		
MENU MONITOR	#12	35	20	B	34	#12	FREEZER CONDENSER		
		37	60	C	36	#12	FREEZER CONDENSER		
		39	60	A	38	#12	FREEZER CONDENSER		
		41	60	B	40	EXIST.	EXISTING AIR HANDLER		
					42	EXIST.	EXISTING AIR HANDLER		

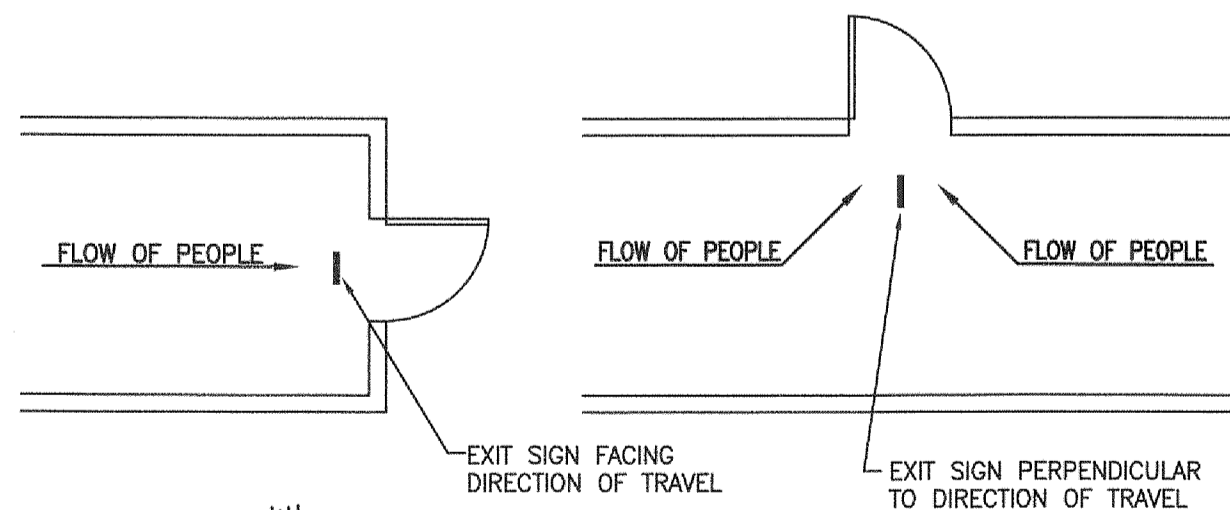
NOTE:
1. VERIFY CONDUCTOR AND BREAKER SIZE WITH EQUIPMENT MANUFACTURER.



DETAIL NO. 1
RECEPTACLE GROUNDING DIAGRAM
SCALE: NTS

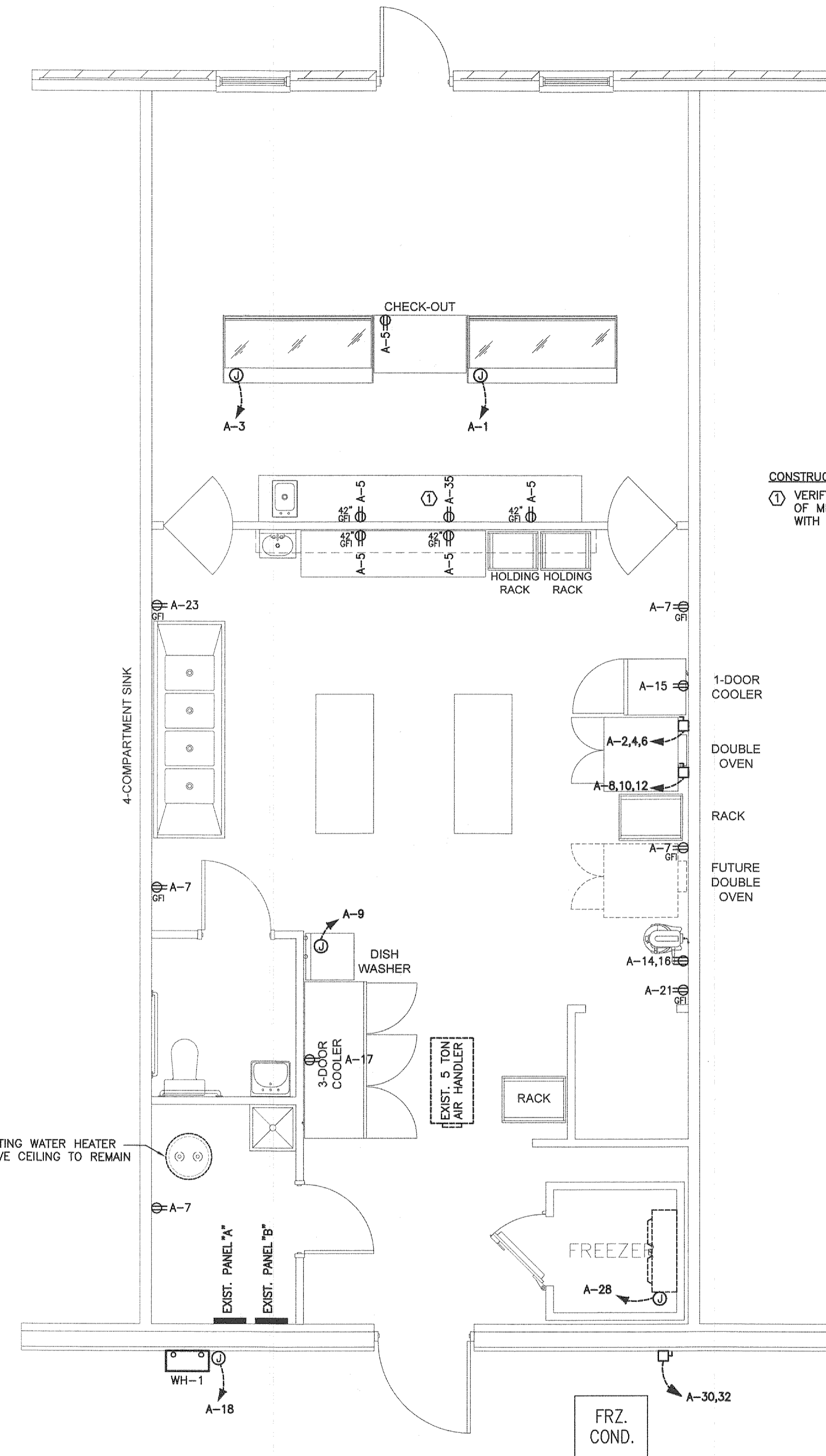


DETAIL NO. 2
TYPICAL RECESSED FIXTURE SUPPORT
SCALE: NTS



DETAIL NO. 3
LOCATIONS OF EXIT SIGNS
SCALE: NTS

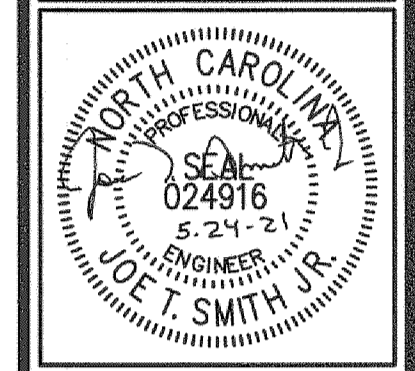
NOTES:
1. EXIT SIGN OR SIGNS ARE SHOWN AS "EXIT" ON LIGHTING PLANS.
2. EXIT SIGNS SHALL BE SINGLE OR DOUBLE-FACE AS REQUIRED WITH CHEVRON DIRECTIONAL INDICATORS.
3. CONTRACTOR SHALL LOCATE EXIT SIGNS NEAR THE CEILING AND VERIFY A CLEAR LINE OF VISION.



1
E-2
ELECTRICAL PLAN - POWER & RECEPTACLE LAYOUT
SCALE: 1/4"=1'-0"

CONSTRUCTION NOTES:
① VERIFY HEIGHT AND LOCATION OF MENU DISPLAY MONITOR WITH OWNER.

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REV#	DATE	DESCRIPTION

The Bake Lab
67 Marshbanks St.
Lillington, NC 27546

DATE: 24 May 2021
DRAWN BY: JS
SCALE: 1/4" = 1'-0"

E-2

PLUMBING NOTES:

- PLUMBING PLANS ARE INTENDED TO PROVIDE INFORMATION FOR INSTALLATION OF A COMPLETE PLUMBING SYSTEM. PROVIDE ALL ESSENTIAL LABOR, MATERIALS & DEVICES REQUIRED TO PRODUCE A QUALITY END PRODUCT.
- CONTRACTOR SHALL REVIEW & BECOME FAMILIAR WITH THE WORK OF ALL TRADES FOR PURPOSES OF COORDINATION AND ROUTING. CONTRACTOR SHALL PROVIDE REQUIRED PLANNING, COORDINATION AND SEQUENCING OF PLUMBING INSTALLATION WITH BUILDING COMPONENTS AND OTHER TRADES.
- COORDINATE CONNECTION OF PLUMBING SYSTEMS WITH SITE UTILITIES AND SERVICES.
- COORDINATE ROOF VENT LOCATIONS WITH OUTSIDE AIR INTAKES OF HVAC UNITS TO MAINTAIN A MINIMUM CLEARANCE OF 10 FEET.
- ALL WORK SHALL COMPLY WITH LOCAL, STATE & ADA CODES. WORKMANSHIP SHALL MEET OR EXCEED INDUSTRY STANDARDS.
- DRAIN, WASTE & VENT (DWV) PIPING SHALL BE ASTM D 1784, SOLID-WALL, SCHEDULE 40 PVC WITH SOCKET TYPE FITTINGS AND SOLVENT-WELDED JOINTS. FOAM CORE PIPING IS NOT ACCEPTABLE.
- ABOVE GRADE WATER PIPING SHALL BE ASTM F 877 CROSS-LINKED POLYETHYLENE (PEX) PLASTIC TUBING.
- WATER SERVICE PIPING SHALL BE ASTM D 1784 PRESSURE-RATED SCHEDULE 40 PVC WITH PVC FITTINGS AND SOLVENT-WELDED JOINTS.
- INDIVIDUAL SUPPLY AND DRAIN CONNECTIONS SIZES ARE NOT INDICATED ON PLANS FOR CLARITY. SIZE EACH TO SUIT RESPECTIVE FIXTURE.
- WATER PIPING INSTALLED IN UNCONDITIONED SPACE SHALL BE INSULATED WITH FIBERGLASS INSULATION WITH A MINIMUM R VALUE OF 6.5.
- DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSULATED WITH FIBERGLASS AND FOIL & PAPER JACKET AS FOLLOWS:
 RUNOUTS 3/4" OR LESS: 1/2" THICK
 PIPING 3/4" TO 2" 1" THICK
 PIPING 2 1/2" & LARGER: 1 1/2" THICK
- WATER PIPING ON OUTSIDE WALLS AND IN CEILING SHALL BE LOCATED BETWEEN BUILDING INSULATION AND CONDITIONED SPACE.
- PROVIDE SHUTOFF VALVES AT EACH MAIN BRANCH LINE. VALVES SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION. PROVIDE CEILING ACCESS DOORS WHERE REQUIRED TO ACCESS SERVICABLE VALVES LOCATED ABOVE GYPBOARD CEILINGS.
- PIPING PASSING THROUGH CONCRETE/MASONRY WALLS OR FLOORS SHALL BE PROTECTED AGAINST EXTERNAL CORROSION BY PROTECTIVE SHEATHING OR WRAPPING.
- INSTALL SCHEDULE 40 PIPE SLEEVE TWO SIZES LARGER AT PENETRATIONS THROUGH FOUNDATION WALLS. SEAL SLEEVE TIGHT TO FOUNDATION WALL.
- PROVIDE INSULATION EQUAL TO MCGUIRE PROWRAP ON P-TRAP ASSEMBLIES AND HOT & COLD WATER PIPING FOR LAVATORIES WITH EXPOSED PIPING.
- VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
- INSTALL PLUMBING FIXTURES AND EQUIPMENT LEVEL & PLUMB. ROUTE PIPING PARALLEL & PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS.
- INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE & REPAIR IN ACCORDANCE WITH MFG'S WRITTEN INSTALLATION INSTRUCTIONS AS WELL AS SPECIFIC INSTRUCTIONS ON PLANS.
- DWV AND WATER DISTRIBUTION PIPING SHALL BE TESTED IN ACCORDANCE WITH NC PLUMBING CODE SECTION 312.

PLUMBING LEGEND		
SYMBOL	ABBR	DESCRIPTION
---	CW	COLD WATER LINE
---	HW	HOT WATER LINE
---	W	SOIL OR WASTE LINE
---	VT	VENT LINE
⊠	AAV	AIR ADMITTANCE VALVE
⊠	VTR	VENT THRU ROOF
⊠	WCO	WALL CLEANOUT
⊠	FCO	FLOOR CLEANOUT
⊠	COG	CLEANOUT ON GRADE
⊠	FD	ROUND FLOOR DRAIN
⊠	FS	FLOOR SINK
⊠	HB	HOSE BIBB/HYDRANT
⊠	FHB	FROSTPROOF HOSE BIBB/HYDRANT
⊠	A	COMPRESSED AIR PIPING
⊠	G	GAS PIPING
⊠	-	CHECK VALVE
⊠	-	SHUTOFF VALVE
⊠	-	GAS COCK
⊠	BFP	BACKFLOW PREVENTER
⊠	-	UNION
⊠	-	CONCENTRIC REDUCER
⊠	-	FLOW DIRECTION ARROW
⊠	-	FIXTURE MARK (SEE SCHEDULE)
⊠	G.C.	GENERAL CONTRACTOR
⊠	P.C.	PLUMBING CONTRACTOR
⊠	M.C.	MECHANICAL CONTRACTOR
⊠	E.C.	ELECTRICAL CONTRACTOR
⊠	AF	ABOVE FINISHED FLOOR
⊠	AFG	ABOVE FINISHED GRADE
⊠	BFG	BELOW FINISHED GRADE

PLUMBING SPECIALTIES SCHEDULE			
MARK	DESCRIPTION	MANF.	REFERENCE MODEL NO.
FCO	FLOOR CLEANOUT	ZURN	ZN-1400
COG	CLEANOUT ON GRADE	ZURN	Z-1449
GI-1	GREASE INTERCEPTOR	WATTS	WD-20
HB	WALL FAUCET	WOODFORD	24 SERIES
FS-1	FLOOR SINK WITH 3/4 GRATE	ZURN	Z-1901-3"-3-25
UB-1	UTILITY BOX - ICE MAKER	OATEY	38681 WITH 3/8" VALVE

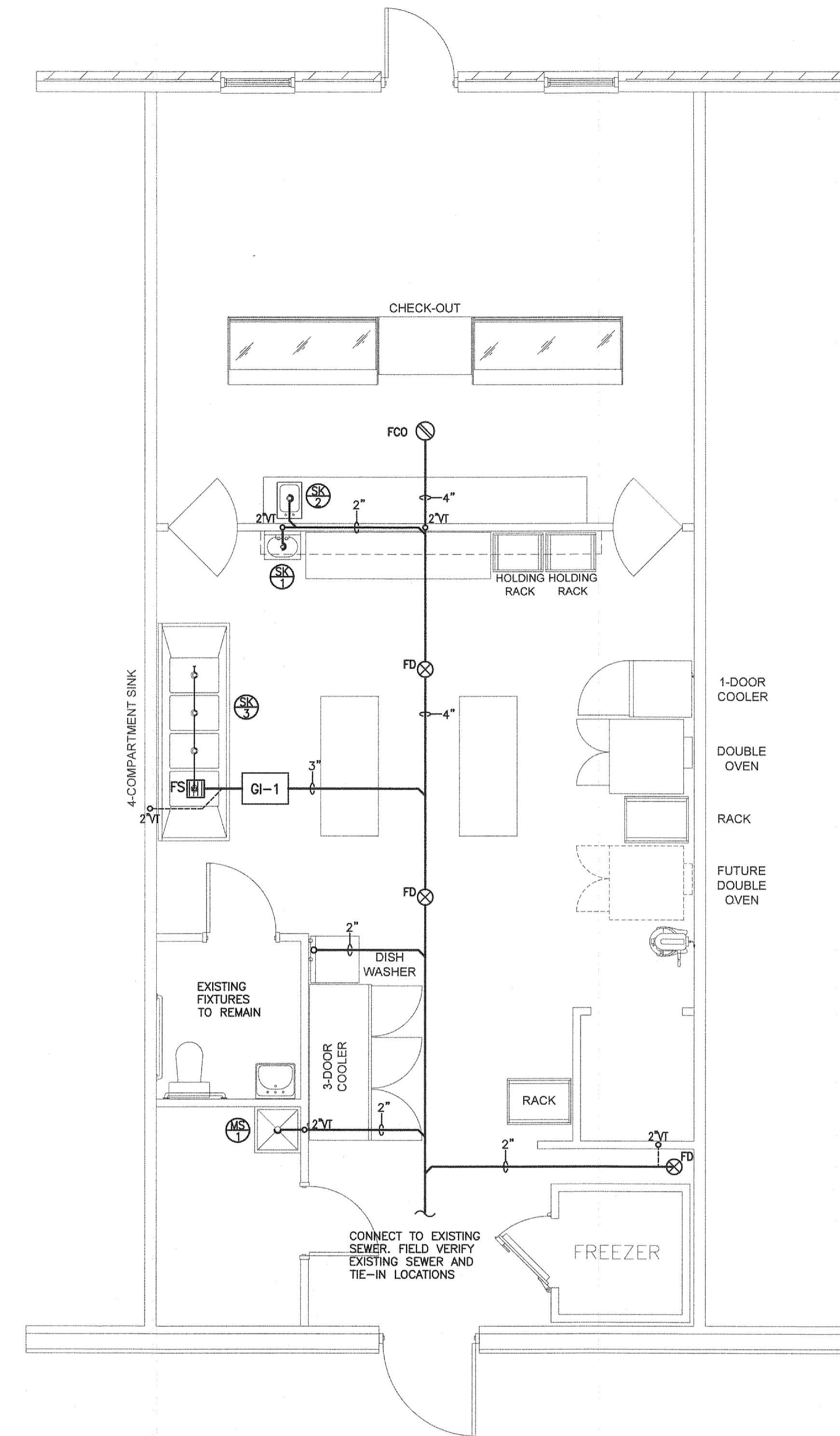
- NOTE:**
- CONTRACTOR MAY SUBSTITUTE FIXTURES OF EQUAL QUALITY.

TANKLESS GAS WATER HEATER SCHEDULE										
MARK	GPM	TEMP. RISE	INPUT CAPACITY	EFFICIENCY	CW CONN.	HW CONN.	GAS CONN.	MANF.	MODEL	WEIGHT
WH-1	4.8	80°F	199,999 BTUH	93%	3/4"	3/4"	3/4"	RINNAI	CU199e	50 LBS.

- NOTES:**
- SET OUTLET WATER TEMPERATURE AT 140°F.
 - CONTRACTOR MAY SUBSTITUTE FIXTURES OF EQUAL QUALITY.

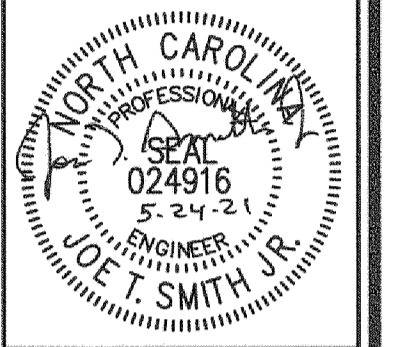
PLUMBING FIXTURE SCHEDULE					
FIX NO	DESCRIPTION	CW	HW	WASTE	REFERENCE MODEL NO.
MS-1	MOP SINK 24"x24"x10" DEEP	1/2"	1/2"	2"	FIAT MSB2424 SYMMONS-2490 FAUCET OR EQUAL
SK-1	HAND WASH SINK	1/2"	1/2"	1 1/2"	JUST A-544-912-TA FAUCET: JUST JS-45-TGA OR EQUAL
SK-2	KITCHEN SINK	1/2"	1/2"	1 1/2"	BY OWNER
SK-3	KITCHEN SINK 4 COMPARTMENT	1/2"	1/2"	1 1/2"	BY OWNER

- NOTES:**
- P.C. SHALL COORDINATE ADA WATER CLOSET TRIP LEVER TO BE LOCATED ON WIDE SIDE OF STALL OR TOILET ROOM.
 - FIXTURES MAY BE SUBSTITUTED FOR EQUAL MANUFACTURER.



1 PLUMBING PLAN - DRAIN WASTE & VENT PIPING LAYOUT
 SCALE: 1/4" = 1'-0"

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REVISIONS	
REV	DESCRIPTION

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P-1

