

2018 APPENDIX B  
BUILDING CODE SUMMARY  
FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2 FAMILY DWELLINGS AND TOWNHOUSES)

NAME OF PROJECT: T & L COATS BUILDING #1 (TENANT-2 "MAMA B'S")  
 ADDRESS: HIGHWAY 27 COATS ZIP CODE: 27527  
 OWNER/AUTHORIZED AGENT: ROBERT BARFOOT PHONE # (910) 890-3256 EMAIL: WBAREFOOT@YAHOO.COM  
 OWNED BY:  CITY/COUNTY  PRIVATE  STATE  
 CODE ENFORCEMENT JURISDICTION:  CITY  COUNTY HARNETT  STATE

LEAD DESIGN PROFESSIONAL: CRUSE & ASSOCIATES, P.A.

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SPRINKLER-STANDPIPE	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
STRUCTURAL (FOUNDATION)	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
RETAINING WALLS >5' HIGH	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
OTHER					

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

2018 EDITION NC BUILDING CODE:  NEW BUILDING  ADDITION  RENOVATION  
 1ST TIME INTERIOR COMPLETIONS  
 SHELL/CORE-CONTACT THE LEAD INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES & REQUIREMENTS  
 PHASED CONSTRUCTION-SHELL/CORE-CONTACT THE LEAD INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES & REQUIREMENTS

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

CONSTRUCTED: (DATE) \_\_\_\_\_ CURRENT OCCUPANCY(S): (CH. 3) \_\_\_\_\_  
 RENOVATED: (DATE) \_\_\_\_\_ PROPOSED OCCUPANCY(S) (CH. 3): \_\_\_\_\_  
 OCCUPANCY CATEGORY (TABLE 1604.5): CURRENT:  I  II  III  IV  
 PROPOSED:  I  II  III  IV

BASIC BUILDING DATA:  
 CONSTRUCTION TYPE:  I-A  II-A  III-A  IV  V-A  
 I-B  II-B  III-B  V-B  
 SPRINKLERS:  NO  PARTIAL  YES  NFPA 13  NFPA 13R  NFPA 13D  
 STANDPIPES:  NO  YES CLASS  I  II  III  WET  DRY  
 PRIMARY FIRE DISTRICT:  NO  YES FLOOD HAZARD AREA:  NO  YES  
 SPECIAL INSPECTIONS REQUIRED:  NO  YES (CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES & REQUIREMENTS)

GROSS BUILDING AREA:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3RD FLOOR			
2ND FLOOR			
MEZZANINE	7,000	3,500 (UPFIT)	
1ST FLOOR			
BASEMENT			
TOTAL GROSS AREA: 7,000			

TOTAL BUILDING = 7,000 SQ. FT.  
 TENANT 1 = 3,500 SQ. FT.  
 TENANT 2 = 3,500 SQ. FT.

ALLOWABLE AREA

PRIMARY OCCUPANCY CLASSIFICATION(S):  
 ASSEMBLY  A-1  A-2  A-3  A-4  A-5  
 BUSINESS   
 EDUCATIONAL   
 FACTORY  F-1 MODERATE  F-2 LOW  
 HAZARDOUS  H-1 DETONATE  H-2 DEFLAGRATE  H-3 COMBUST  H-4 HEALTH  H-5 HPM  
 INSTITUTIONAL  I-1 CONDITION  1  2  
 I-2 CONDITION  1  2  
 I-3 CONDITION  1  2  3  4  5  
 I-4  
 MERCANTILE   
 RESIDENTIAL  R-1  R-2  R-3  R-4  
 STORAGE  S-1 MODERATE  S-2 LOW  HIGH-PILED  
 PARKING GARAGE  OPEN  ENCLOSED  REPAIR GARAGE  
 UTILITY AND MISCELLANEOUS

ACCESSORY OCCUPANCY CLASSIFICATION(S): \_\_\_\_\_  
 INCIDENTAL USES (TABLE 509): \_\_\_\_\_  
 SPECIAL USES (CHAPTER 4-LIST CODE SECTIONS): \_\_\_\_\_  
 SPECIAL PROVISIONS (CHAPTER 5-LIST CODE SECTIONS): \_\_\_\_\_  
 MIXED OCCUPANCY:  NO  YES SEPARATION: \_\_\_\_\_ HR. EXCEPTION: \_\_\_\_\_

NON-SEPARATED USE (508.3) 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.

ACTUAL AREA OF OCCUPANCY A / ALLOWABLE AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B / ALLOWABLE AREA OF OCCUPANCY B ≤ 1  
 \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,5</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2,3</sup>
1	A-2	3,500	9,500	-	9,500

<sup>1</sup> FRONTAGE AREA INCREASES FROM SECTION 506.2 ARE COMPUTED AS:  
 A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = \_\_\_\_\_ (F)  
 B. TOTAL BUILDING PERIMETER = \_\_\_\_\_ (P)  
 C. RATIO (F/P) = \_\_\_\_\_ (F/P)  
 D. W = MINIMUM WIDTH OF PUBLIC WAY = \_\_\_\_\_ (W)  
 E. PERCENT OF FRONTAGE INCREASE  $\frac{1}{2} = 100[F/P - 0.25] \times W/30 =$  \_\_\_\_\_ (%)  
<sup>2</sup> UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTION 507.  
<sup>3</sup> MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING x D (MAXIMUM 3 STORIES) (506.2).  
<sup>4</sup> THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH 406.5.4.  
<sup>5</sup> FRONTAGE INCREASE IS BASED ON THE UNSPRINKLERED AREA VALUE IN TABLE 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE <sup>1</sup>
BUILDING HEIGHT IN FEET (TABLE 504.3) <sup>2</sup>	FEET <u>55</u>	23'-8"	
BUILDING HEIGHT IN STORIES (TABLE 504.4) <sup>3</sup>	STORIES <u>3</u>	STORIES <u>1</u>	

1. PROVIDE CODE REFERENCE IF THE "SHOWN ON PLANS" QUANTITY IS NOT BASED ON TABLE 504.3 OR 504.4.  
 2. THE MAXIMUM HEIGHT OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.3.1.  
 3. THE MAXIMUM HEIGHT OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (W/REDUCTION)	DETAIL AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	-	0	-	-	-	-	-
BEARING WALLS	-	-	-	-	-	-	-
EXTERIOR	-	-	-	-	-	-	-
NORTH	0	-	-	-	-	-	-
EAST	0	-	-	-	-	-	-
WEST	0	-	-	-	-	-	-
SOUTH	0	-	-	-	-	-	-
INTERIOR	0	-	-	-	-	-	-
NONBEARING WALLS & PARTITIONS	-	-	-	-	-	-	-
EXTERIOR	-	-	-	-	-	-	-
NORTH	0	-	-	-	-	-	-
EAST	0	-	-	-	-	-	-
WEST	0	-	-	-	-	-	-
SOUTH	0	-	-	-	-	-	-
INTERIOR	0	-	-	-	-	-	-
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	-	0	-	-	-	-	-
FLOOR CEILING ASSEMBLY	-	-	-	-	-	-	-
COLUMNS SUPPORTING FLOORS	-	-	-	-	-	-	-
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	-	0	-	-	-	-	-
ROOF CEILING ASSEMBLY	-	-	-	-	-	-	-
COLUMNS SUPPORTING ROOF	-	-	-	-	-	-	-
SHAFT ENCLOSURES-EXIT	-	-	-	-	-	-	-
SHAFT ENCLOSURES-OTHER	-	-	-	-	-	-	-
CORRIDOR SEPARATION	-	0	-	-	-	-	-
OCCUPANCY SEPARATION	-	-	-	-	-	-	-
PARTY/FIRE WALL SEPARATION	-	-	-	-	-	-	-
SMOKE BARRIER SEPARATION	-	-	-	-	-	-	-
TENANT/DWELLING UNIT/SLEEPING UNIT SEPARATION	-	-	-	-	-	-	-
INCIDENTAL USE SEPARATION	-	-	-	-	-	-	-

\*INDICATE 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 (%)
82'	UP; NS	NO LIMIT	42%

LIFE SAFETY SYSTEM REQUIREMENTS:  
 EMERGENCY LIGHTING:  NO  YES  
 EXIT SIGNS:  NO  YES  
 FIRE ALARM:  NO  YES  
 SMOKE DETECTION SYSTEMS:  NO  YES  PARTIAL \_\_\_\_\_  
 CARBON MONOXIDE DETECTION:  NO  YES

LIFE SAFETY PLAN REQUIREMENTS:  
 LIFE SAFETY PLAN SHEET #, IF PROVIDED: LS-1 OF 1

ACCESSIBLE DWELLING UNITS N/A (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

ACCESSIBLE PARKING-SEE SITE PLAN-SEE SITE PLAN (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	8' ACCESS AISLE	
	24	37	2			2

PLUMBING FIXTURE REQUIREMENTS-(NO REQUIREMENT FOR SHELL BUILDING) (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES			SERVICE SINK	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE REQUIRED	2	2	-	-	1	1	-	1	-	-
PROVIDED	1	2	-	1	1	1	-	1	-	-

add exceptions for unisex, no mop sink, and no drinking fountain

SPECIAL APPROVALS  
 SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)

DESIGN LOADS: STRUCTURAL DESIGN-EXISTING

SNOW (I<sub>s</sub>) 1.0  
 SEISMIC (I<sub>e</sub>) 1.0  
 LIVE LOADS: ROOF 20 PSF  
 MEZZANINE N/A PSF  
 FLOOR 100 PSF  
 GROUND SNOW LOAD: 15 PSF  
 WIND LOAD: BASIC WIND SPEED 118 ULT. MPH (ASCE-7)  
 EXPOSURE CATEGORY B

SEISMIC DESIGN CATEGORY  A  B  C  D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:  
 OCCUPANCY CATEGORY (TABLE 1604.5)  I  II  III  IV  
 SPECTRAL RESPONSE ACCELERATION S<sub>s</sub> 0.17 %g S<sub>1</sub> 0.08 %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 2,000 PSF  
 PILE SIZE, TYPE, AND CAPACITY \_\_\_\_\_

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 THE ANNUAL ENERGY COST FOR THE PROPOSED DESIGN.  
 EXISTING BUILDING ENVELOPE COMPLIES WITH CODE:  NO  YES (THE REMAINDER OF THIS SECTION IS NOT APPLICABLE)

EXEMPT BUILDING  NO  YES PROVIDE CODE OR STATUTORY REFERENCE: \_\_\_\_\_  
 CLIMATE ZONE:  3A  4A  5A

METHOD OF COMPLIANCE: ENERGY CODE  PERFORMANCE  PRESCRIPTIVE  
 ASHRAE 90.1  PERFORMANCE  PRESCRIPTIVE

OTHER:  PERFORMANCE (SPECIFY SOURCE) \_\_\_\_\_  
 THERMAL ENVELOPE (PRESCRIPTIVE METHOD ONLY)  
 ROOF/CEILING ASSEMBLY (EACH ASSEMBLY):  
 DESCRIPTION OF ASSEMBLY R-19 + R-11 LS WITH R-3 THERMAL BLOCKS  
 U-VALUE OF TOTAL ASSEMBLY: N/A  
 R-VALUE OF INSULATION: N/A  
 SKYLIGHTS IN EACH ASSEMBLY: N/A  
 U-VALUE OF SKYLIGHT: N/A  
 TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY: N/A

EXTERIOR WALLS (EACH ASSEMBLY):  
 DESCRIPTION OF ASSEMBLY R-0+R-15.8 CI WITH BRICK VENEER  
 U-VALUE OF TOTAL ASSEMBLY: \_\_\_\_\_  
 R-VALUE OF INSULATION: N/A  
 OPENINGS (WINDOWS OR DOORS WITH GLAZING) DOUBLE PANE, HM FRAME  
 U-VALUE OF ASSEMBLY 0.45 SOLAR HEAT GAIN COEFFICIENT: N/A  
 PROJECTION FACTOR N/A DOOR R-VALUES 1.3

WALLS BELOW GRADE (EACH ASSEMBLY):  
 DESCRIPTION OF ASSEMBLY N/A  
 U-VALUE OF TOTAL ASSEMBLY N/A R-VALUE OF INSULATION: N/A

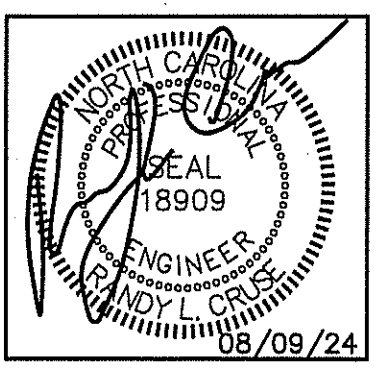
FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY):  
 DESCRIPTION OF ASSEMBLY N/A  
 U-VALUE OF TOTAL ASSEMBLY N/A R-VALUE OF INSULATION: N/A

FLOOR SLAB ON GRADE:  
 DESCRIPTION OF ASSEMBLY SLAB ON GRADE  
 R-VALUE OF INSULATION: R-15 TO BOTTOM OF FOOTING  
 U-VALUE OF TOTAL ASSEMBLY: \_\_\_\_\_  
 HORIZONTAL / VERTICAL REQUIREMENT: \_\_\_\_\_  
 SLAB HEATED? NO

Summary:  
 ENERGY CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: ENERGY CONSERVATION CODE  
 BUILDING CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: BUILDING CODE  
 MECHANICAL CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: MECHANICAL CODE  
 PLUMBING CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: PLUMBING CODE  
 ELECTRICAL CODE: 2020 NATIONAL ELECTRIC CODE  
 ACCESSIBILITY CODE: ICC/ANSI 117.1-2009 AMERICAN NATIONAL STANDARD ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES  
 CONSTRUCTION: III-B  
 OCCUPANCY: A-2

SHEET INDEX

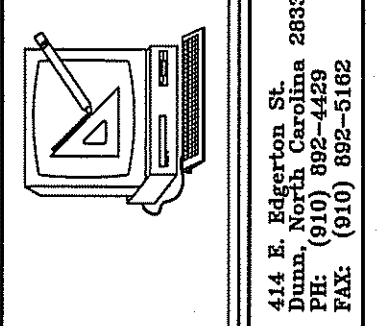
BD-1 OF 1	APPENDIX B
LS-1 OF 1	LIFE SAFETY PLAN
F-1 OF 3	FLOOR PLAN
F-2 OF 3	EQUIPMENT PLAN
F-3 OF 3	HVAC PLATFORM DETAILS
P-1 OF 3	PLUMBING SUPPLY PLAN
P-2 OF 3	WASTE & VENT PIPING PLAN
P-3 OF 3	WASTE & VENT PIPING PLAN
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M-3 OF 3	MECHANICAL DETAILS, SCHEDULES
E-1 OF 3	ELECTRICAL LIGHTING PLAN
E-2 OF 3	ELECTRICAL POWER PLAN
E-3 OF 3	ELECTRICAL NOTES, RISER DIAGRAM, PANELS



PLANS FOR:  
 MAMA B'S  
 SOUTHERN KITCHEN  
 COATS, NORTH CAROLINA

REVISIONS

NO.	DESCRIPTION



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DATE 08-09-24  
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 JOB NO. 24-16

SHEET NO.  
BD-1 OF 1

EXIT REQUIREMENTS:  
NUMBER AND ARRANGEMENTS OF EXITS

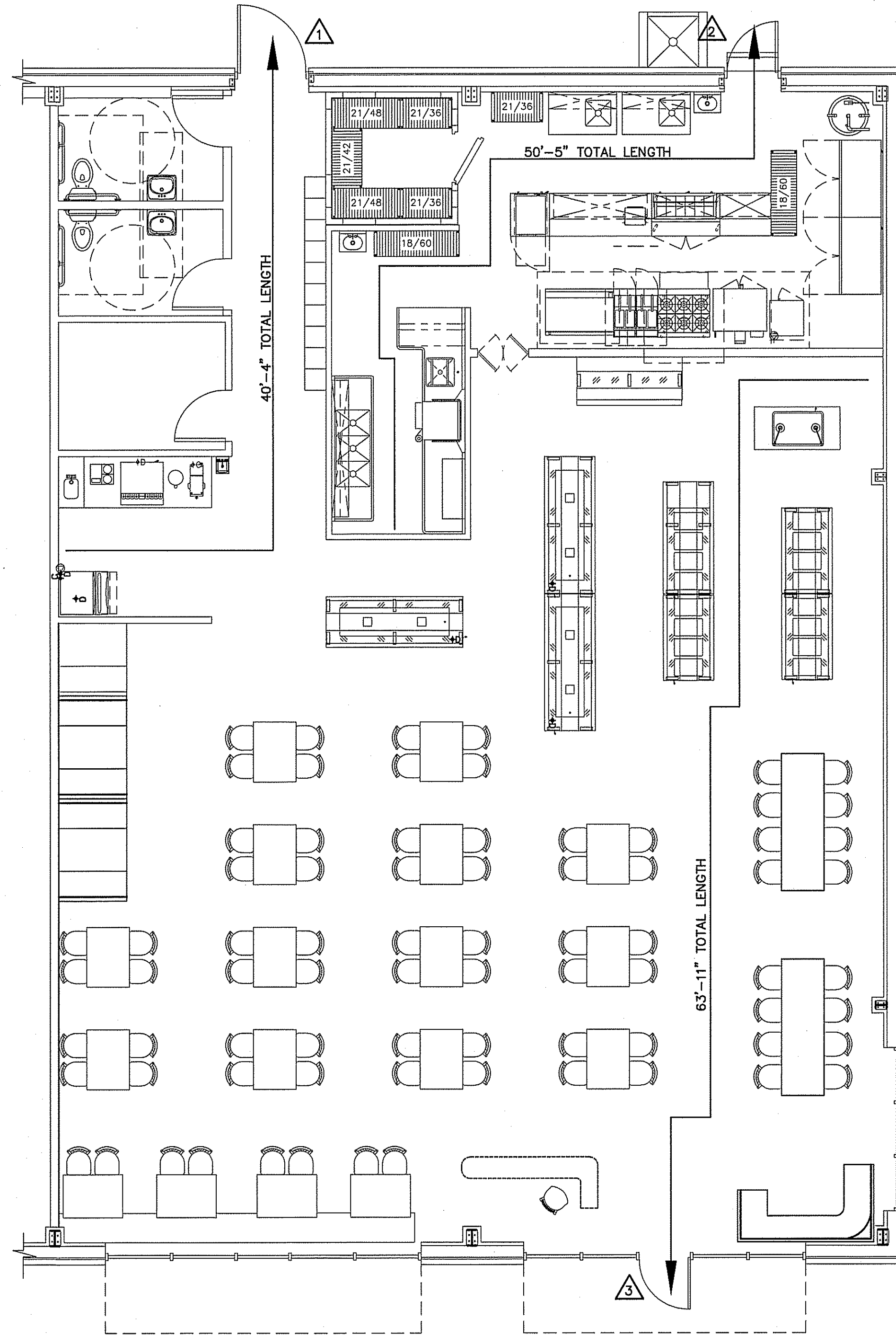
FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM <sup>2</sup> NO. OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS <sup>1,3</sup> (SECTION 1016-1021)	
	REQ'D.	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1017.2)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS
A-2	2	3	200'	63'-11"	41'-0"	69'-7"

- CORRIDOR DEAD ENDS (SECTION 1020.4)
- BUILDINGS WITH SINGLE EXITS (TABLE 1006.3.2(2)), SPACES WITH ONE MEANS OF EGRESS (TABLE 1006.2.1)
- COMMON PATH OF TRAVEL (SECTION 1029.8)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA <sup>1</sup> SQ. FT.	(b) AREA <sup>1</sup> PER OCCUPANT (TABLE 1004.1.2)	CALCULATED OCCUPANT LOAD (a/b)	(c) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)		(d) EXIT WIDTH (IN)			
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
DINING	2,635	FIXED SEATING	94	N/A	.2	N/A	18.8"	N/A	96"
KITCHEN	665	200 GROSS	4	N/A	.2	N/A	.8"	N/A	36"
WAITING/HOSTESS	200	FIXED SEATING	8	N/A	.2	N/A	1.6"	N/A	96"
	3,500		106						

- SEE TABLE 1004.1.2 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE. SEE DEFINITION "AREA, GROSS" AND "AREA, NET" (SECTION 1002, DEFINED IN CHAPTER 2)
- MINIMUM STAIRWAY WIDTH (SECTION 1011.2); MIN. CORRIDOR WIDTH (SECTION 1020.2); MIN. DOOR WIDTH (SECTION 1010.1.1)
- MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1024)
- SEE SECTION 1005.6 FOR CONVERGING EXITS.
- THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50% OF THE TOTAL REQUIRED (SECTION 1005.5)
- ASSEMBLY OCCUPANCIES (SECTION 1029)



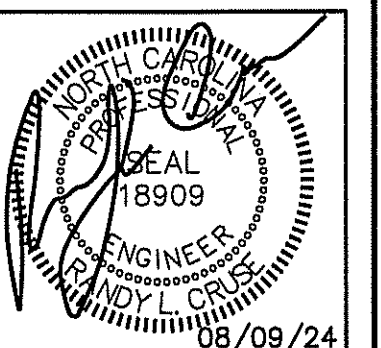
LIFE SAFETY PLAN  
SCALE: 3/16" = 1'-0"

LIFE SAFETY PLAN REQUIREMENTS:

- FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7) - SEE NOTE 1
- ASSUMED AND REAL PROPERTY LINE LOCATIONS - SEE NOTE 2
- EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8) - SEE NOTE 3
- OCCUPANCY TYPES FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.2)
- OCCUPANT LOADS FOR EACH AREA
- EXIT ACCESS TRAVEL DISTANCES (1017)
- COMMON PATH OF TRAVEL DISTANCES (1006.2.1 & 1006.3.2(1))
- DEAD END LENGTHS (1020.4) - SEE NOTE 4
- CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
- MAXIMUM CALCULATED OCCUPANT LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.3)
- ACTUAL OCCUPANT LOAD FOR EACH EXIT DOOR
- A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION. SEE NOTE 5
- LOCATION OF DOORS WITH PANIC HARDWARE (1010.1.10) - SEE NOTE 6
- LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1010.1.9.7) - SEE NOTE 7
- LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1010.1.10) - SEE NOTE 7
- LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES - SEE NOTE 7
- LOCATION OF EMERGENCY ESCAPE WINDOWS (1030) - SEE NOTE 7
- THE SQUARE FOOTAGE OF EACH FIRE AREA (202) - SEE NOTE 8
- THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT (407.5) - SEE NOTE 9
- NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

LIFE SAFETY PLAN NOTES:

- NO RATED WALLS.
- ALL ASSUMED AND REAL PROPERTY LINES >30'.
- UNLIMITED (ALL 30' OR GREATER)
- NO DEAD ENDS; 20' ALLOWED.
- NO RATING REQUIRED THIS STRUCTURE.
- PANIC HARDWARE REQUIRED ON ALL EXIT DOORS.
- NO DELAYED EGRESS LOCKS, ELECTROMAGNETIC LOCKS, HOLD OPEN DEVICES, OR EMERGENCY ESCAPE WINDOWS
- FIRE AREAS DO NOT EXCEED CODE ALLOWANCE
- BUILDING MEETS CODE REQUIREMENTS WITHOUT SUBDIVISION INTO SMOKE COMPARTMENTS; NO SMOKE COMPARTMENTS



PLANS FOR:  
MAMA B'S  
SOUTHERN KITCHEN  
COATS, NORTH CAROLINA

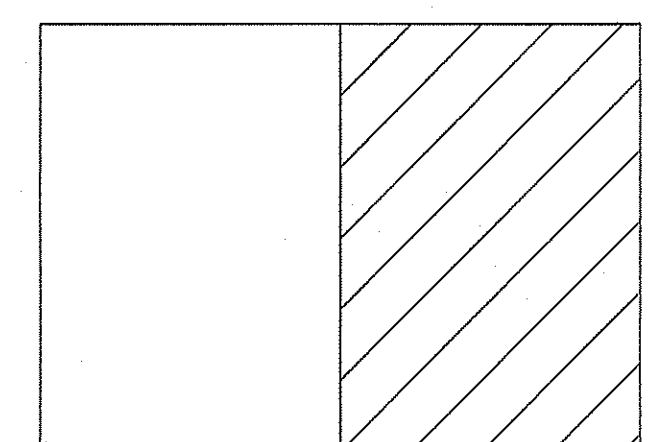
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SHEET NO.  
LS-1 OF 1



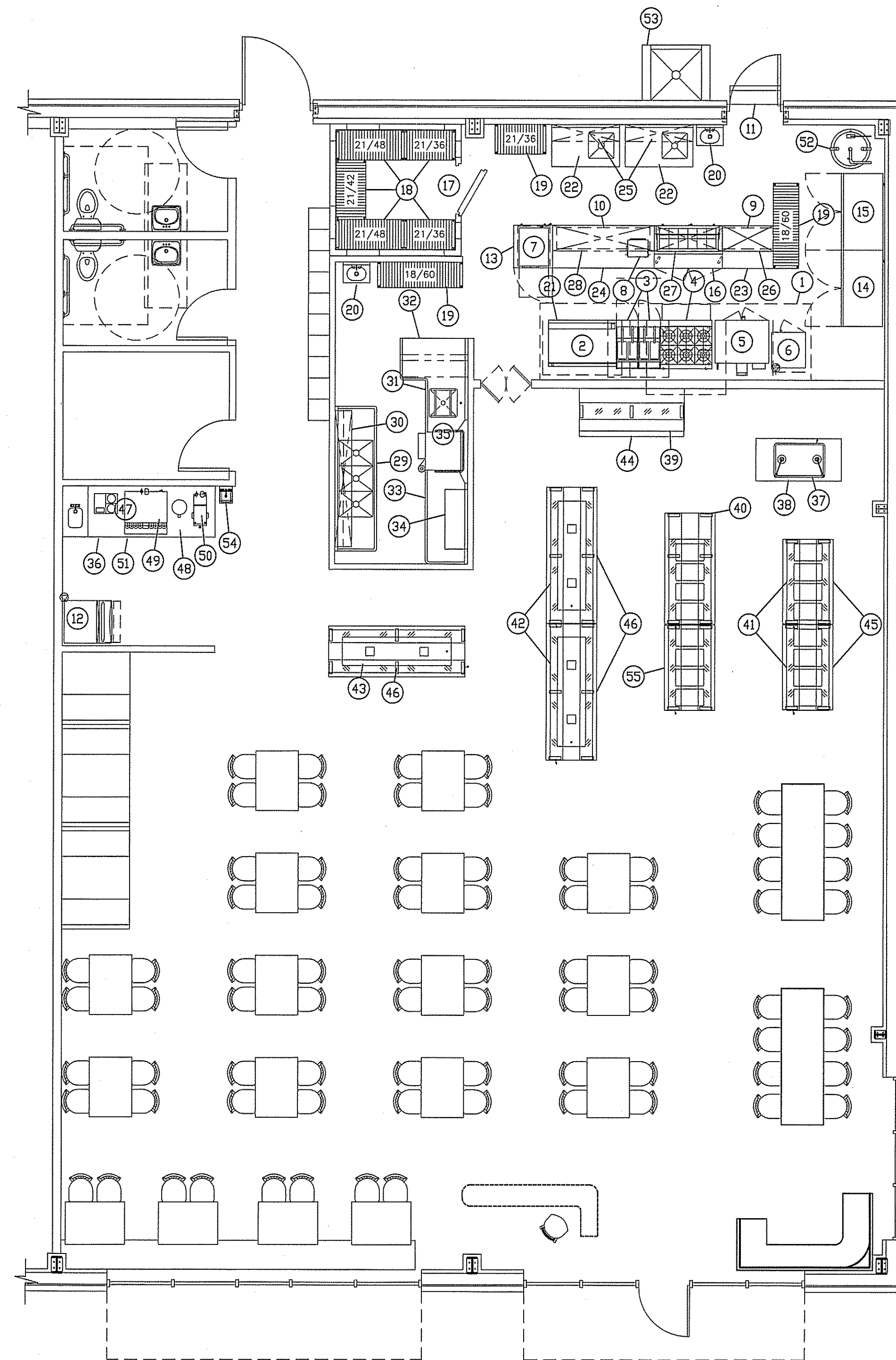
KEY PLAN

NOTE:  
AREA/ROOM/SPACE DESIGNATIONS USED ON LIFE SAFETY PLANS ARE EXCLUSIVE TO LIFE SAFETY PLAN ONLY, AND ARE NOT INDICATIVE OF ANY ACTUAL SPACE DESIGNATIONS USED ELSEWHERE.

- 1. 47" CLEAR WIDTH DIVIDED BY .2" = 235 OCCUPANTS  
CALCULATED OCCUPANCY PER EXIT = 51 PEOPLE  
CALCULATED OCCUPANCY DOES NOT EXCEED MAXIMUM CAPACITY OF EXIT.
- 2. 35" CLEAR WIDTH DIVIDED BY .2" = 175 OCCUPANTS  
CALCULATED OCCUPANCY PER EXIT = 4 PEOPLE  
CALCULATED OCCUPANCY DOES NOT EXCEED MAXIMUM CAPACITY OF EXIT.
- 3. 35" CLEAR WIDTH DIVIDED BY .2" = 175 OCCUPANTS  
CALCULATED OCCUPANCY PER EXIT = 51 PERSON  
CALCULATED OCCUPANCY DOES NOT EXCEED MAXIMUM CAPACITY OF EXIT.

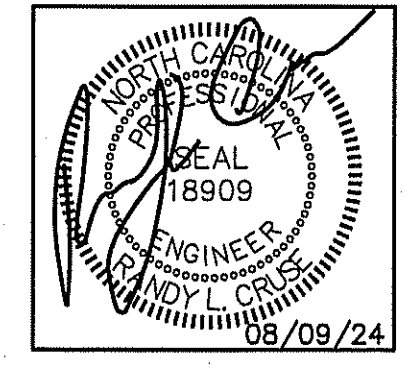






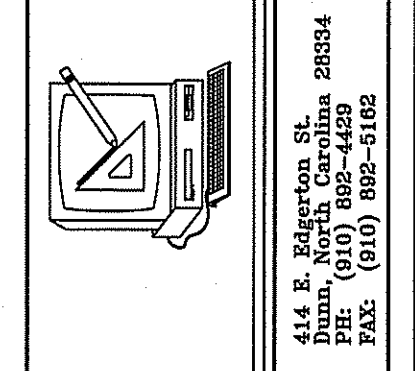
**EQUIPMENT PLAN**  
SCALE: 3/16" = 1'-0"

EQUIPMENT SCHEDULE			
ITEM	QUAN	DESCRIPTION	REMARKS
1	1	16'-0" x 54" EXHAUST HOOD SYSTEM	Fire Suppression
2	1	48" Counter-Top GRIDDLE	
3	2	FRYER	
4	1	6-Burner RANGE w/Oven	
5	1	CONVECTION OVEN	
6	1	UPRIGHT STEAMER	
7	1	2-Drawer FOOD WARMER	
8	1	FRESH-D-MATIC	
9	1	30" Dual HEAT LAMP	
10	1	66" Dual HEAT LAMP	
11	1	36" FLY FAN w/Micro-Switch	
12	1	ICE MACHINE w/Storage Bin	
13	1	Under-Counter FREEZER	
14	1	2-Door FREEZER	
15	1	2-Door FREEZER	
16	1	48" SANDWICH UNIT (12-Pan)	
17	1	7'-9" x 7'-9" WALK-IN COOLER	
18	5	Walk-In Cooler SHELVING UNIT	
19	3	Dry Storage SHELVING UNIT	
20	2	S/S HAND SINK w/Slide Splashes	
21	1	48" S/S EQUIPMENT STAND w/Casters	
22	1	30" x 48" S/S PREP TABLE w/Sink	18" x 18" Bowl
23	1	30" x 36" S/S WORK TABLE	
24	1	30" x 72" S/S WORK TABLE	
25	1	12" x 48" S/S WALL SHELF	
26	1	18" x 36" S/S Double OVERSHELF	
27	1	18" x 48" S/S Double OVERSHELF	
28	1	18" x 72" S/S Double OVERSHELF	
29	1	3-Compartment SINK w/2-24" DB's	18" x 24" Bowls
30	1	12" x 96" S/S WALL SHELF w/Pot Rack	
31	1	66" x 48" S/S Soiled DISH TABLE w/Pre-Rinse	
32	1	48" Double-Sided RACK SHELF	
33	1	66" S/S Clean DISH TABLE	
34	1	42" S/S Slanted RACK SHELF	
35	1	Ventless DOOR-TYPE DISH MACHINE	BY Others
36	1	36" x 9'-0" S/S BEVERAGE STATION w/Hand Sink	
37	1	Portable CARVING STATION	
38	1	60" Solid-Top UNIT	
39	1	74" Solid-Top UNIT	
40	1	HOT FOOD BUFFET w/6-Hot Wells	
41	2	4-Well HOT FOOD UNIT	
42	2	96" COLD FOOD UNIT	
43	1	96" COLD FOOD UNIT	SALAD BAR
44	1	74" Half BUFFET SHEILD	
45	2	60" BUFFET SHEILD	
46	3	96" BUFFET SHEILD	
47	1	BEVERAGE/ICE DISPENSER	BY Others
48	1	TEA BREWER	BY Others
49	1	TEA DISPENSER	BY Others
50	1	COFFEE BREWER	BY Others
51	1	BAG-N-BOX (Under Item #36)	BY Others
52	1	WATER HEATER	BY Others
53	1	CAN WASH	BY Others
54	1	S.S. HANDSINK	BY Others
55	1	139" BUFFET SHEILD	



PLANS FOR:  
MAMA B'S  
SOUTHERN KITCHEN  
COATS, NORTH CAROLINA

REVISIONS	
NO.	

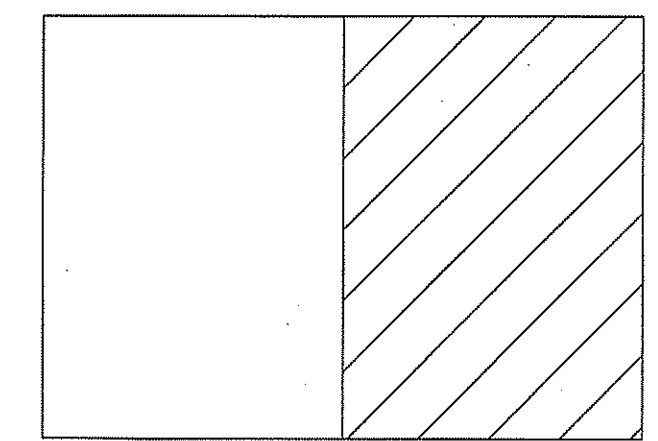


**Cruse and Associates, P.A.**  
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LICENSE NO.: C-1721

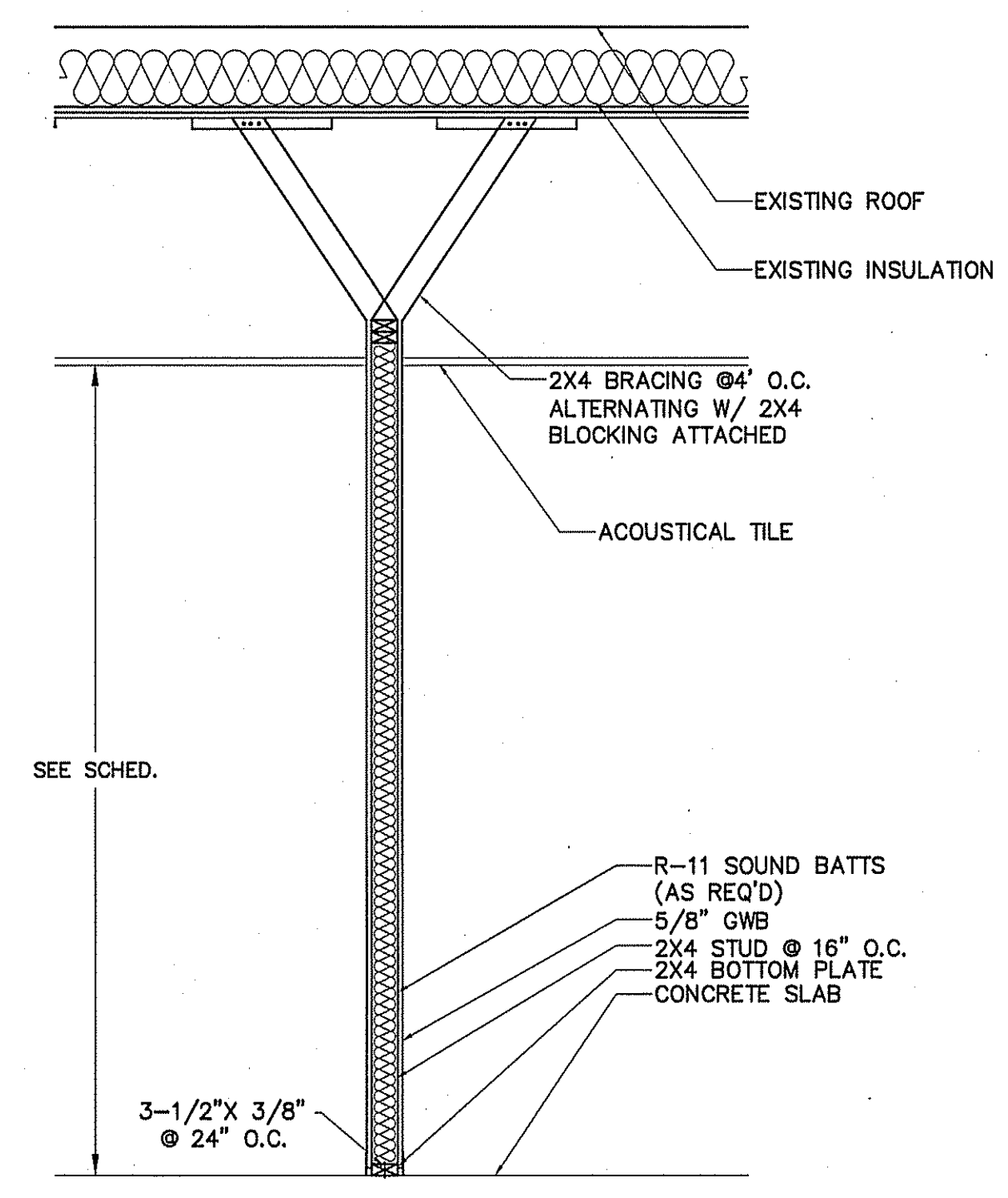
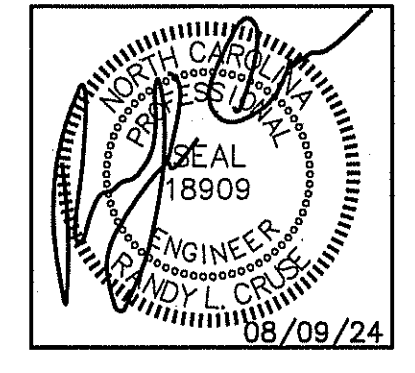
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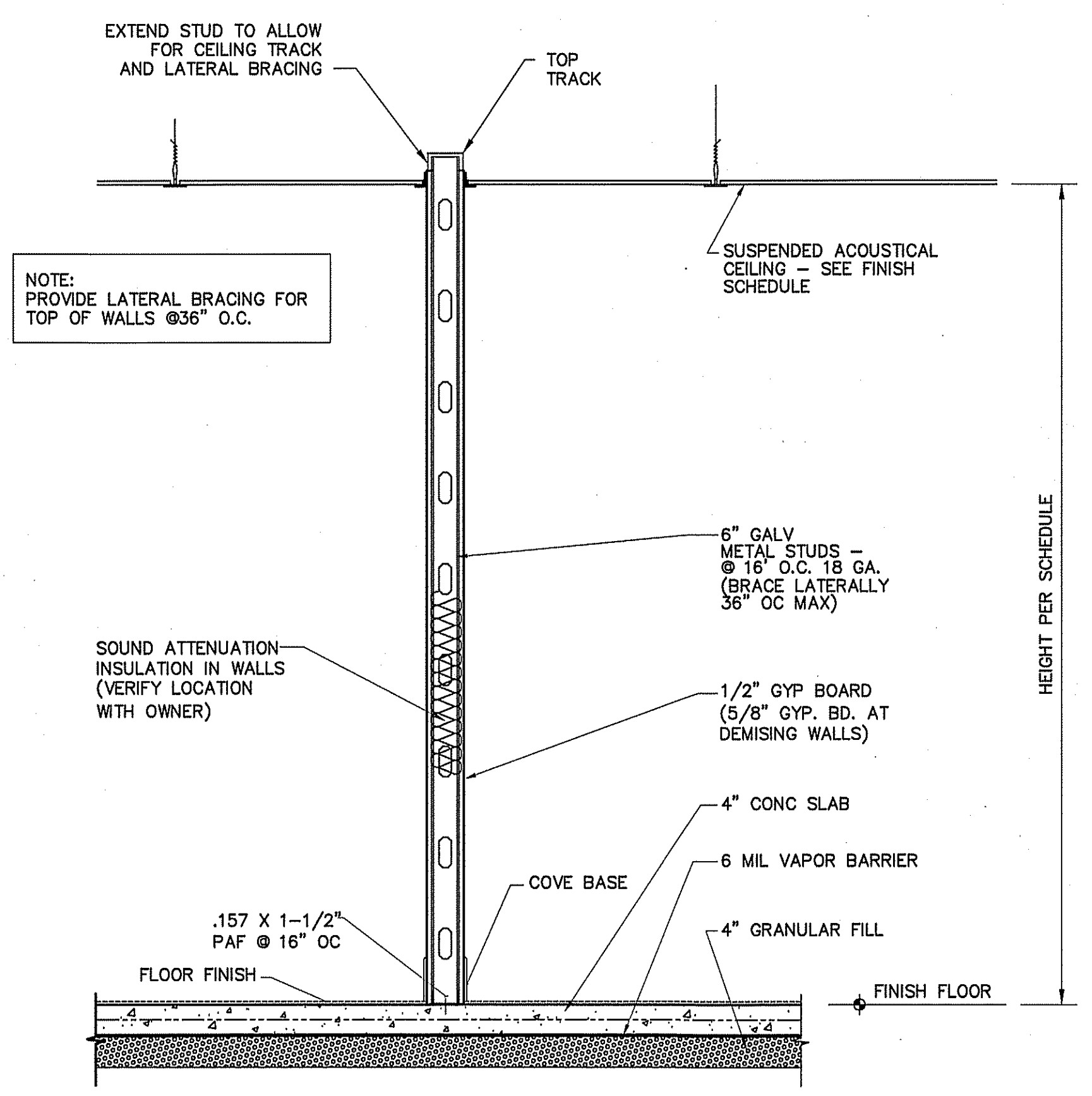
SHEET NO.  
F-2 OF 3



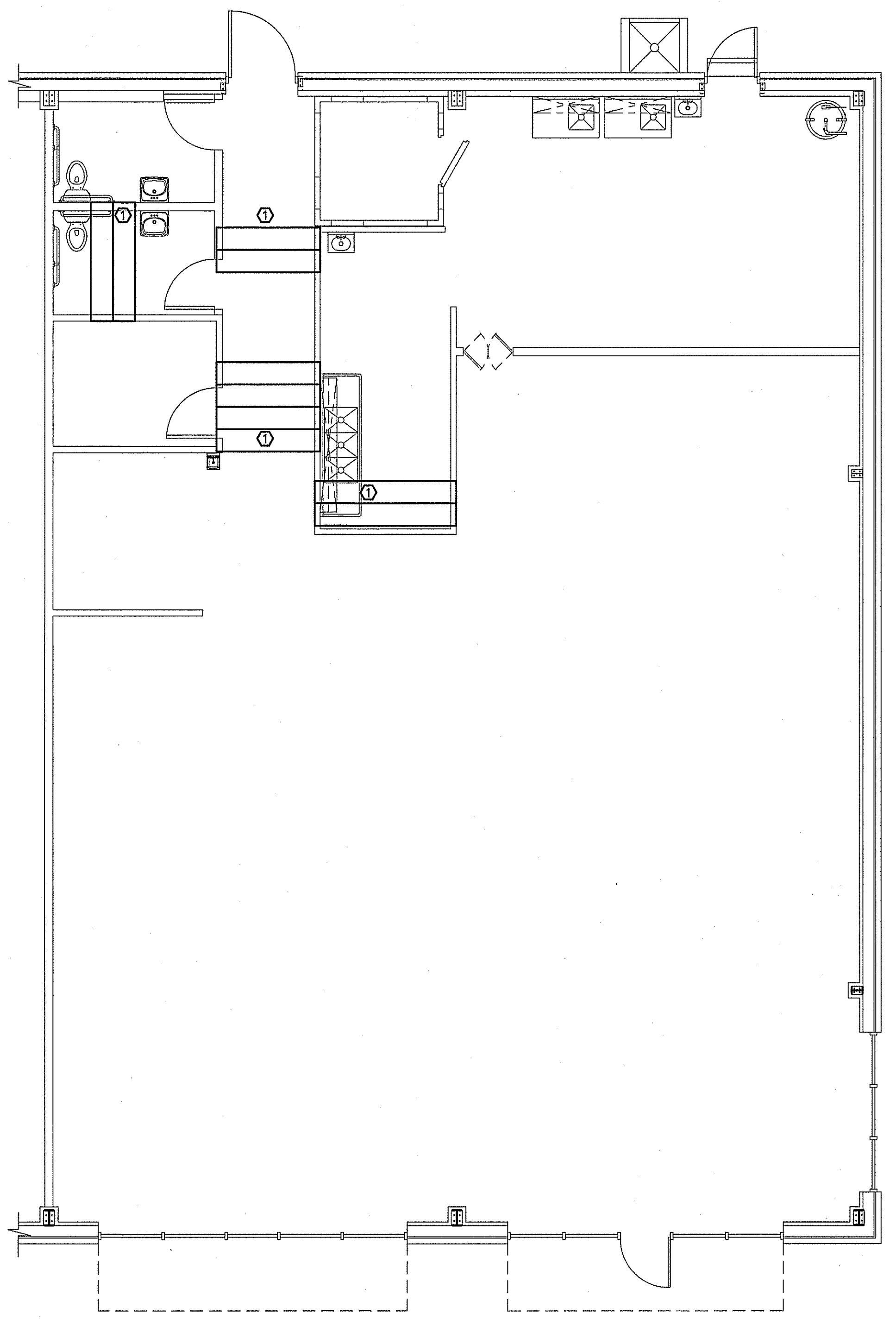
KEY PLAN



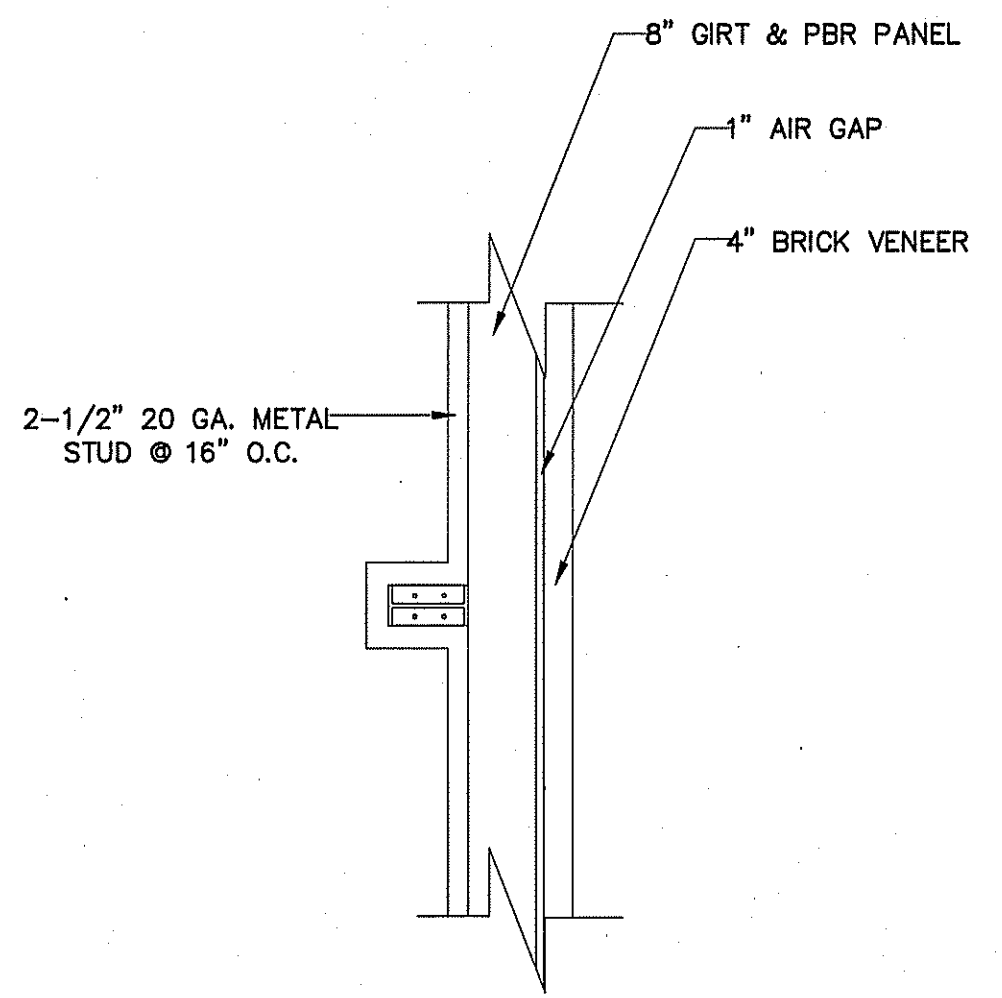
**WOOD INTERIOR WALL SECTION**  
SCALE: NONE



SECTION SIMILAR FOR WALLS PERPENDICULAR TO "Z" PURLINS  
**TYPICAL METAL STUD INTERIOR WALL SECTION**  
SCALE: NONE



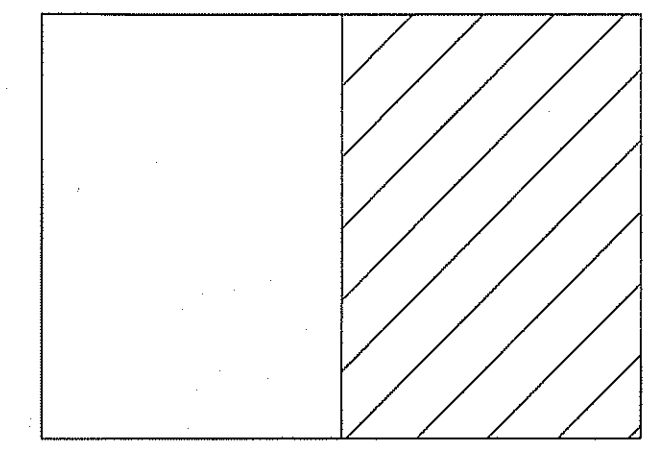
**HVAC PLATFORM DETAILS**  
SCALE: 3/16" = 1'-0"



**PROPOSED WALL DETAIL**  
SCALE: NOT TO SCALE

**KEY NOTES:**

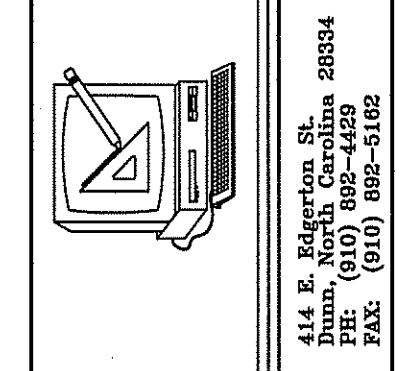
- B-1 (2) 2X8
- ① 2X8 CEILING JOISTS @ 16" O.C. PROVIDE 3/4" PLYWOOD DECK FOR MECHANICAL EQUIPMENT. SEE SHEET F-1 FOR WALL HEIGHTS. INSTALL 2X2 ACOUSTICAL CEILING BELOW PLATFORM.



**KEY PLAN**

PLANS FOR:  
**MAMA B'S**  
**SOUTHERN KITCHEN**  
COATS, NORTH CAROLINA

REVISIONS	
NO.	



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License No. C-1721

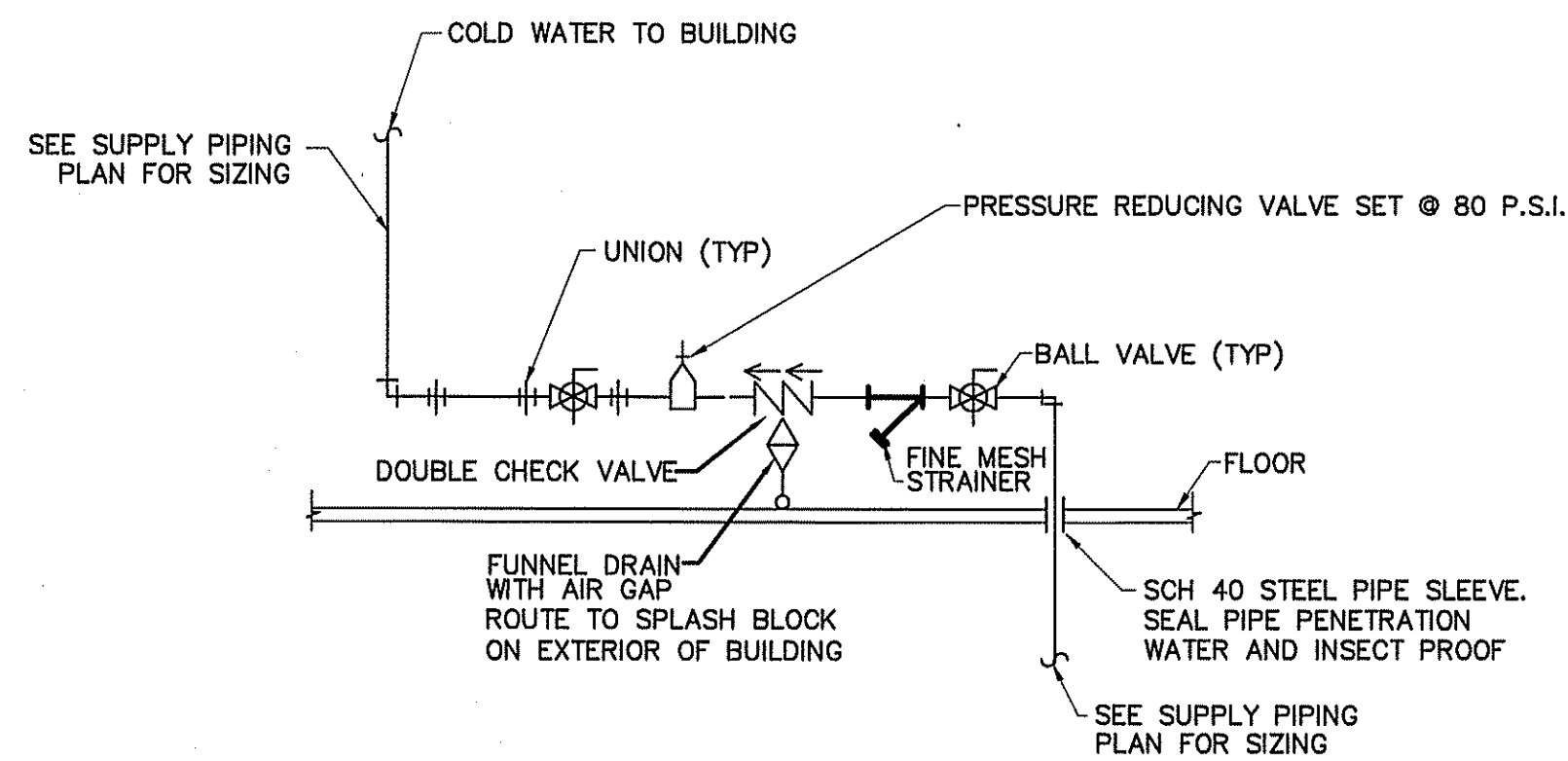
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SHEET NO.  
**F-3 OF 3**



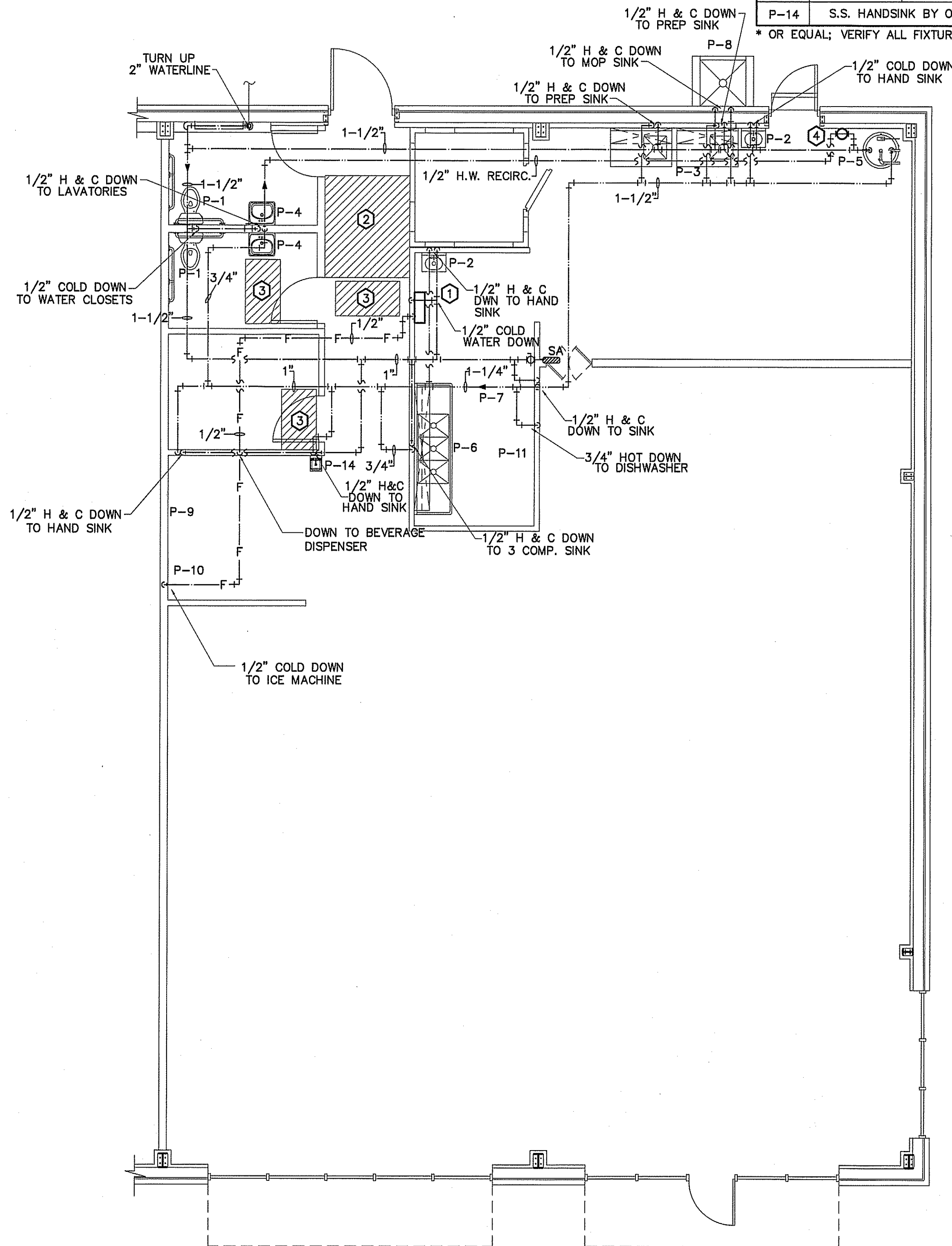
PLUMBING LEGEND	
DESCRIPTION	SYMBOL
COLD WATER	CW
HOT WATER	HW
COLD WATER (FILTERED)	
RECIRCULATED WATER	HWR
VENT PIPING	V
WASTE PIPING	NEW EXISTING W
CLEAN OUT IN GRADE	C.O.I.G.
FLOOR CLEAN OUT	F.C.O.
NON FREEZE HOSE BIBB	NFHB
FLOOR DRAIN	F.D.
CHECK VALVE	
BALL VALVE	
GATE VALVE	
SHUT-OFF VALVE	
DOUBLE CHECK VALVE	
FIXTURE DESIGNATION	P---
MOUNTING HEIGHT	MH
POINT OF CONNECTION NEW TO EXISTING	
FLOOR SINK	
SHOCK ABSORBER W/BALL VALVE SHUT-OFF	SA SIZE PER MANUF. RECOMMENDATIONS
CHANGE IN PIPE SIZE	



**DETAIL-WATER SERVICE ENTRANCE AS REQUIRED**  
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE				
MARK	MAKE	MODEL	DESCRIPTION	NOTES
P-1	AMERICAN STANDARD	CADET 2467.016	EL 1.6/PA 16.5" HC ELONGATED WATER CLOSET HC ACCESSIBLE, TANK TYPE	WHITE 5321.110 SEAT
P-2			STAINLESS STEEL HAND SINK W/SIDE SPLASHES	
P-3			30"X48" SS PREP TABLE WITH SINK	
P-4	AMERICAN STANDARD	REGALYN 4869.004.020	CAST IRON WALL MOUNTED SINK	1340.227 FAUCET. PROVIDE W/BASKET DRAIN
P-5	A.O. SMITH	BTR-199	199,000 BTU/HOUR	INCLUDE CONCENTRIC VENTING, MINIMUM RECOVERY RATE OF 175 GALLONS @ 100° TEMP. RISE
P-6	ATOSA	MRSC-3-D	(3) 18"W X 24"; 14" DEEP WITH (2) 24" DRAINBOARDS & 10" HIGH BACKSPLASH	
P-7			SOILED TABLE WITH PRE-RINSE	
P-8			36"X36"X10" MOP SERVICE BASIN	PROVIDE W/ SERVICE FAUCET-HOSE AND HOSE HOLDER; MOP HANGER; AND DURAGUARD WALL GUARDS
P-9	UNITED REST. EQUIP. CO.	HANDSINK-SPLASHES	T & S MODEL NO. B-1146	
P-10	MANOTOWOC	IDT1200C	ICE MAKER CUBE STYLE	
P-11	DISHWASHER SELECTED & PROVIDED BY OWNER			
P-12	WATTS	FS-850	FLOOR SINK	
P-13	WATTS	FS-740	FLOOR SINK	
P-14	S.S. HANDSINK BY OTHER			

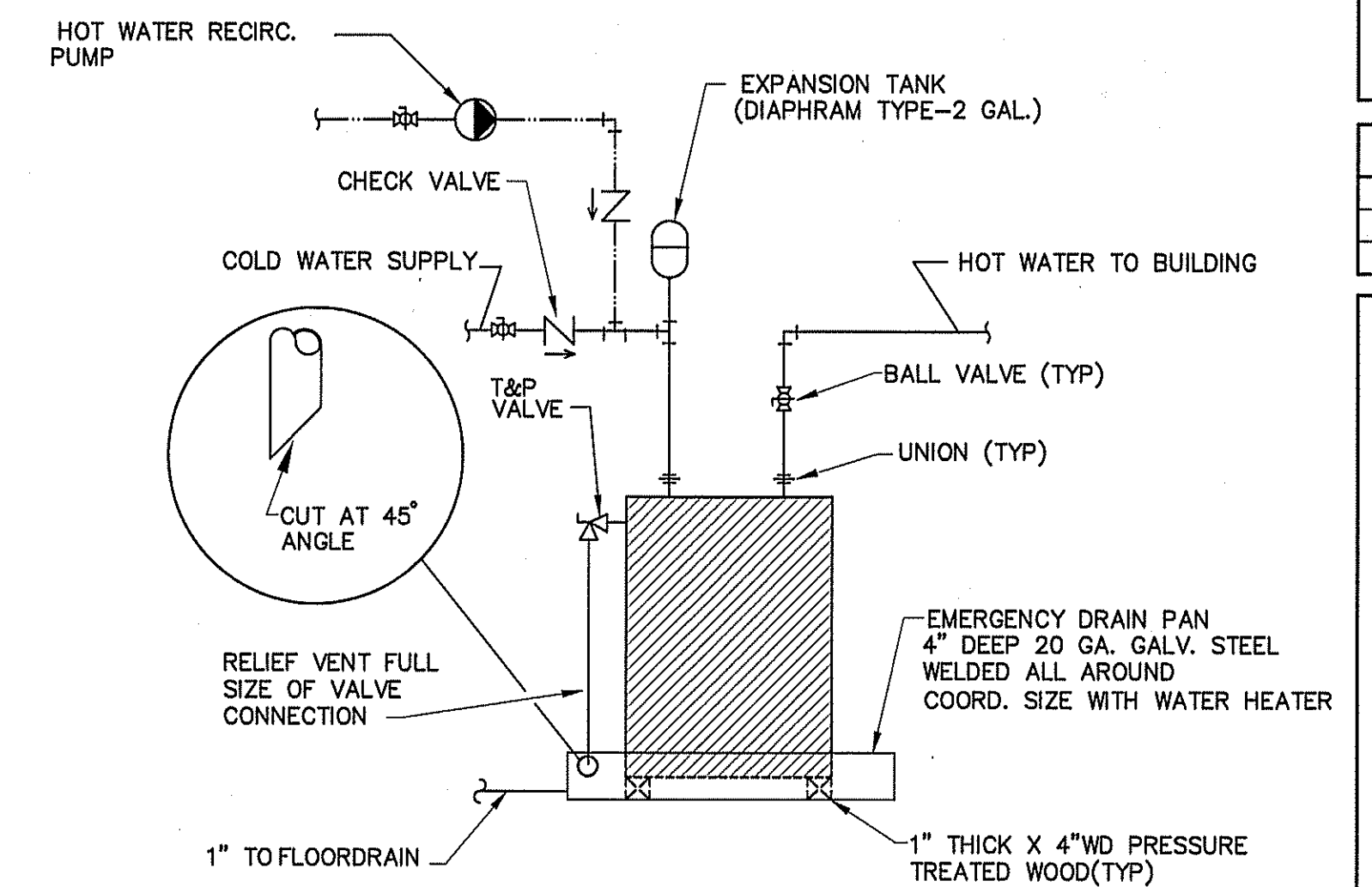
\* OR EQUAL; VERIFY ALL FIXTURES WITH OWNER BEFORE PURCHASING OR INSTALLING;



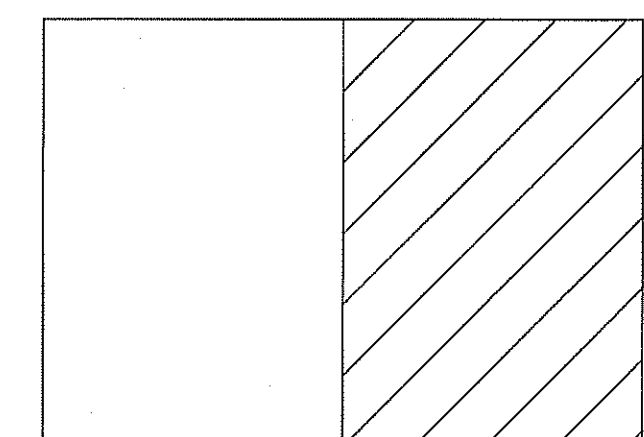
**PLUMBING SUPPLY PIPING PLAN**  
SCALE: 3/16" = 1'-0"

**KEY NOTES:**

- ① WATER FILTER
- ② ELECTRICAL PANEL CLEARANCE AREA. NO PLUMBING SUPPLY PIPING IN THIS AREA.
- ③ DESIGNATED HVAC SERVICE ACCESS SPACE. COORDINATE PIPE LOCATIONS WITH HVAC PLAN.
- ④ HOT WATER RECIRCULATION PUMP



**DETAIL-WATER HEATER**  
NOT TO SCALE



**KEY PLAN**

**PLUMBING CALCULATIONS**

ITEM	# OF	FIXTURE UNITS (EACH)			FIXTURE UNITS (TOTAL)			FIXTURE UNITS (WASTE)
		COLD	HOT	TOTAL	COLD	HOT	TOTAL	
FLUSH TANK-H.C. WATER CLOSET	2	5.0	-	5.0	10	-	10	4/8
LAVATORY	6	1.5	1.5	2	9.0	9.0	12.0	1/6
JANITOR'S SINK	1	2.25	2.25	3	2.25	2.25	3.0	1/1
PREP SINK	2	3	3	4.0	6	6	8.0	3/6
3 COMPARTMENT SINK	1	3	3	4.0	3	3	4.0	3/9
ICE MACHINE	1	.25	-	.25	.25	-	.25	.5/1
N.F.H.B.	2	3.0	-	3.0	6	-	6.0	.5/1.0
DISHWASHER	1	-	1.4	1.4	-	1.4	1.4	2/2
<b>TOTAL</b>	<b>18.0</b>	<b>11.15</b>	<b>22.65</b>	<b>39.5</b>	<b>24.65</b>	<b>44.65</b>	<b>31.0</b>	

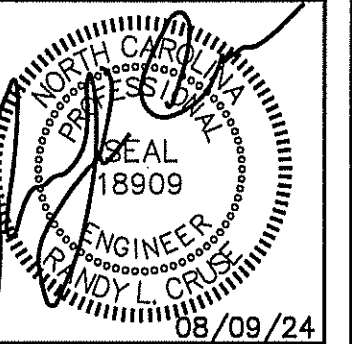
GPM = 27.5  
WATER SUPPLY PIPE SIZE: 1-1/4" MINIMUM

**PLUMBING CONNECTION SCHEDULE**

FIXTURE	C.W.	H.W.	WASTE	VENT
FLUSH TANK WATER CLOSET	1/2"	-	3"	2"
LAVATORY	1/2"	1/2"	2"	1 1/2"
ELEC. WATER COOLER	1/2"	-	2"	1 1/2"
SERVICE SINK	1/2"	1/2"	2"	1 1/2"
HOSE BIBBS	1/2"	1/2"	-	-
FLOOR DRAIN			3"	2"
KITCHEN SINKS	1/2"	1/2"	3"	2"
DISHWASHER	-	1/2"	2"	1 1/2"

**NOTES:**

INSTALL THERMOSTATICALLY CONTROLLED MIXING VALVES AS NEEDED TO ENSURE HOT WATER TEMPERATURE TO ALL HAND WASHING LOCATIONS DOES NOT EXCEED 110°F.



PLANS FOR:  
**MAMA B'S**  
**SOUTHERN KITCHEN**  
COATS, NORTH CAROLINA

**REVISIONS**

NO.	

414 E. Edgerton St.  
Charlotte, NC 28204  
Phone: (704) 375-0424  
Fax: (704) 375-0102

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JOB NO. 24-16

SHEET NO.

**P-1 OF 3**

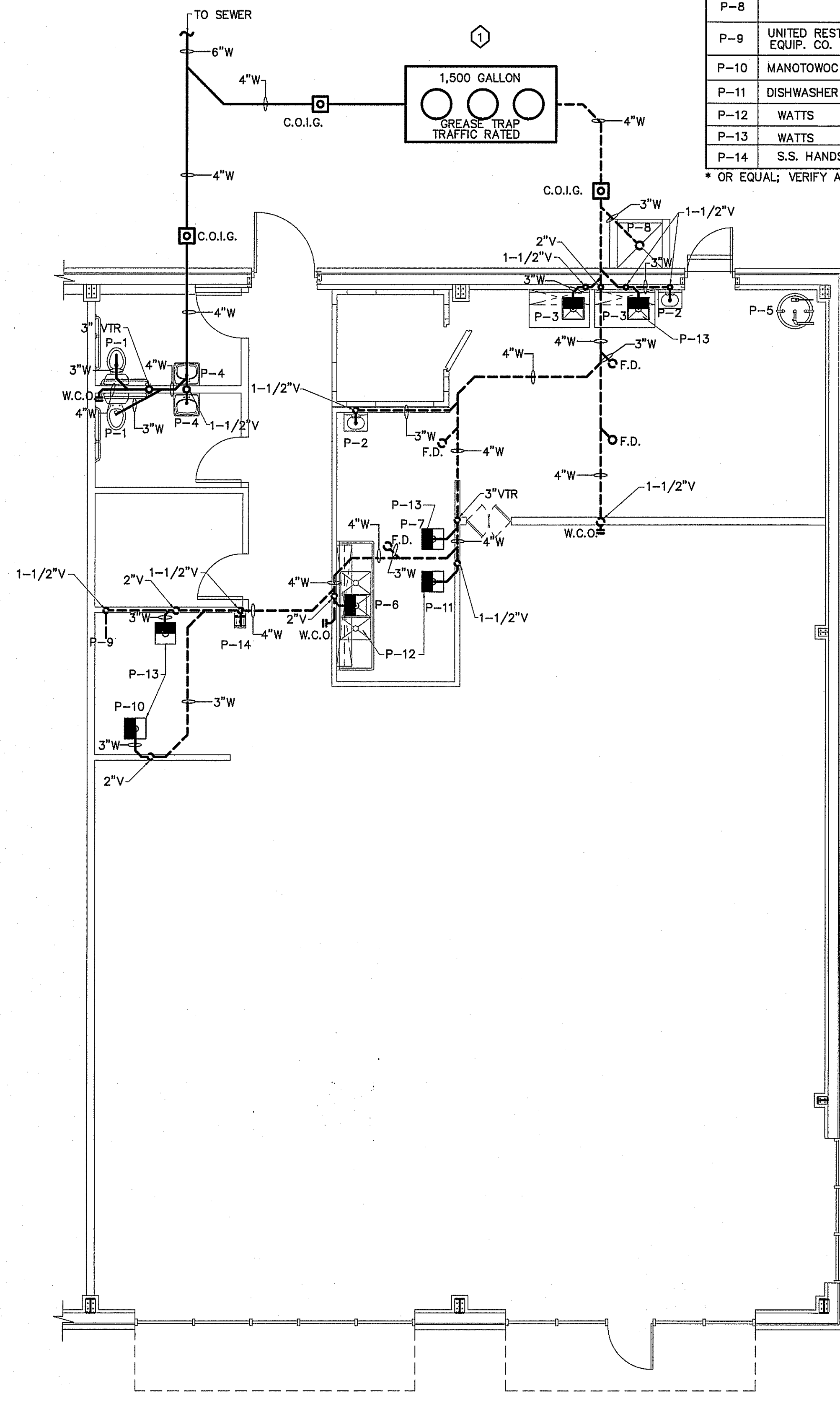
PLUMBING LEGEND	
DESCRIPTION	SYMBOL
COLD WATER	CW
HOT WATER	HW
COLD WATER (FILTERED)	
RECIRCULATED WATER	HWR
VENT PIPING	V
WASTE PIPING	NEW GREASE W
CLEAN OUT IN GRADE	C.O.I.G.
FLOOR CLEAN OUT	F.C.O.
NON FREEZE HOSE BIBB	NFHB
FLOOR DRAIN	F.D.
CHECK VALVE	
BALL VALVE	
GATE VALVE	
SHUT-OFF VALVE	
DOUBLE CHECK VALVE	
FIXTURE DESIGNATION	P--
MOUNTING HEIGHT	MH
POINT OF CONNECTION NEW TO EXISTING	
FLOOR SINK	
SHOCK ABSORBER W/BALL VALVE SHUT-OFF	SA SIZE PER MANUF. RECOMMENDATIONS
CHANGE IN PIPE SIZE	

PLUMBING CONNECTION SCHEDULE				
FIXTURE	C.W.	H.W.	WASTE	VENT
FLUSH TANK WATER CLOSET	1/2"	-	3"	2"
LAVATORY	1/2"	1/2"	2"	1 1/2"
ELEC. WATER COOLER	1/2"	-	2"	1 1/2"
SERVICE SINK	1/2"	1/2"	2"	1 1/2"
HOSE BIBBS	1/2"	1/2"	-	-
FLOOR DRAIN			3"	2"
KITCHEN SINKS	1/2"	1/2"	3"	2"
DISHWASHER	-	1/2"	2"	1 1/2"

PLUMBING FIXTURE SCHEDULE				
MARK	MAKE	MODEL	DESCRIPTION	NOTES
P-1	AMERICAN STANDARD	CADET 2467.016	EL. 1.6/PA 16.5"HC ELONGATED WATER CLOSET HC ACCESSIBLE, TANK TYPE	WHITE 5321.110 SEAT
P-2			STAINLESS STEEL HAND SINK W/SIDE SPLASHES	
P-3			30"X48" SS PREP TABLE WITH SINK	
P-4	AMERICAN STANDARD	REGALYN 4869.004.020	CAST IRON WALL MOUNTED SINK	1340.227 FAUCET. PROVIDE W/BASKET DRAIN
P-5			GAS WATER HEATER	199,900 BTUH
P-6	ATOSA	MRSC-3-D	(3) 18"W X 24";14" DEEP WITH (2) 24" DRAINBOARDS & 10" HIGH BACKSPASH	
P-7			SOILED TABLE WITH PRE-RINSE	
P-8			36"X36"X10" MOP SERVICE BASIN	PROVIDE W/ SERVICE FAUCET;HOSE AND HOSE HOLDER; MOP HANGER; AND DURAGUARD WALL GUARDS
P-9	UNITED REST. EQUIP. CO.	HANDSINK-SPLASHES	T & S MODEL NO. B-1146	
P-10	MANOTOWOC	IDT1200C	ICE MAKER CUBE STYLE	
P-11			DISHWASHER SELECTED & PROVIDED BY OWNER	
P-12	WATTS	FS-850	FLOOR SINK	
P-13	WATTS	FS-740	FLOOR SINK	
P-14			S.S. HANDSINK BY OTHERS	

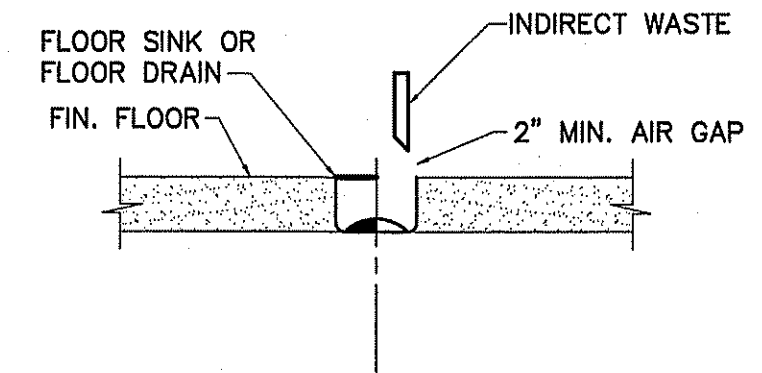
\* OR EQUAL; VERIFY ALL FIXTURES WITH OWNER BEFORE PURCHASING OR INSTALLING;

**KEYNOTE:**  
 ① VERIFY LOCATION WITH OWNER BEFORE BEGINNING CONSTRUCTION



**PLUMBING WASTE & VENT PIPING PLAN**  
 SCALE: 3/16" = 1'-0"

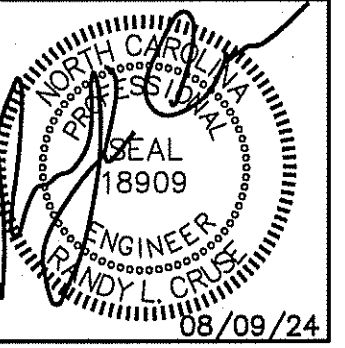
**NOTES:**  
 1. G.C. AND P.C. TO VERIFY FALL, PIPE DEPTH & SEWER CONNECTION DEPTH BEFORE BEGINNING CONSTRUCTION.  
 2. COORDINATE WASTE PIPING ROUTE TO AVOID LARGE FOOTING LOCATIONS WHERE POSSIBLE.



**INDIRECT/FLOOR SINK DETAIL**  
 NOT TO SCALE

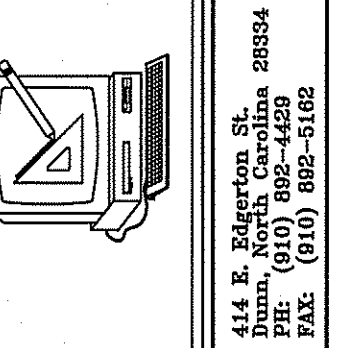
PLUMBING CALCULATIONS								
ITEM	# OF	FIXTURE UNITS (EACH)			FIXTURE UNITS (TOTAL)			FIXTURE UNITS (WASTE)
		COLD	HOT	TOTAL	COLD	HOT	TOTAL	
FLUSH TANK-H.C. WATER CLOSET	2	5.0	-	5.0	10	-	10	4/8
LAVATORY	6	1.5	1.5	2	9.0	9.0	12.0	1/6
JANITOR'S SINK	1	2.25	2.25	3	2.25	2.25	3.0	1/1
PREP SINK	2	3	3	4.0	6	6	8.0	3/6
3 COMPARTMENT SINK	1	3	3	4.0	3	3	4.0	3/9
ICE MACHINE	1	.25	-	.25	.25	-	.25	.5/1
N.F.H.B.	2	3.0	-	3.0	6	-	6.0	.5/1.0
DISHWASHER	1	-	1.4	1.4	-	1.4	1.4	2/2
<b>TOTAL</b>	<b>18.0</b>	<b>11.15</b>	<b>22.65</b>	<b>39.5</b>	<b>24.65</b>	<b>44.65</b>	<b>31.0</b>	

GPM = 27.5  
 WATER SUPPLY PIPE SIZE: 1-1/2" MINIMUM



PLANS FOR:  
**MAMA B'S**  
**SOUTHERN KITCHEN**  
 COATS, NORTH CAROLINA

REVISIONS	
NO.	DATE
1.	06/27/2024

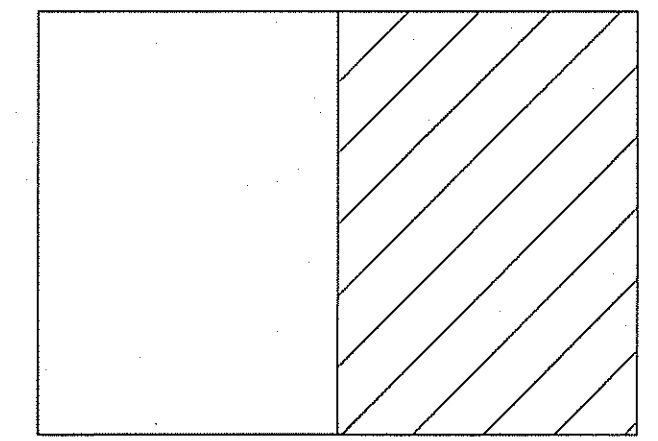


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 JOB NO. 24-16

SHEET NO.  
**P-2 OF 3**



**KEY PLAN**



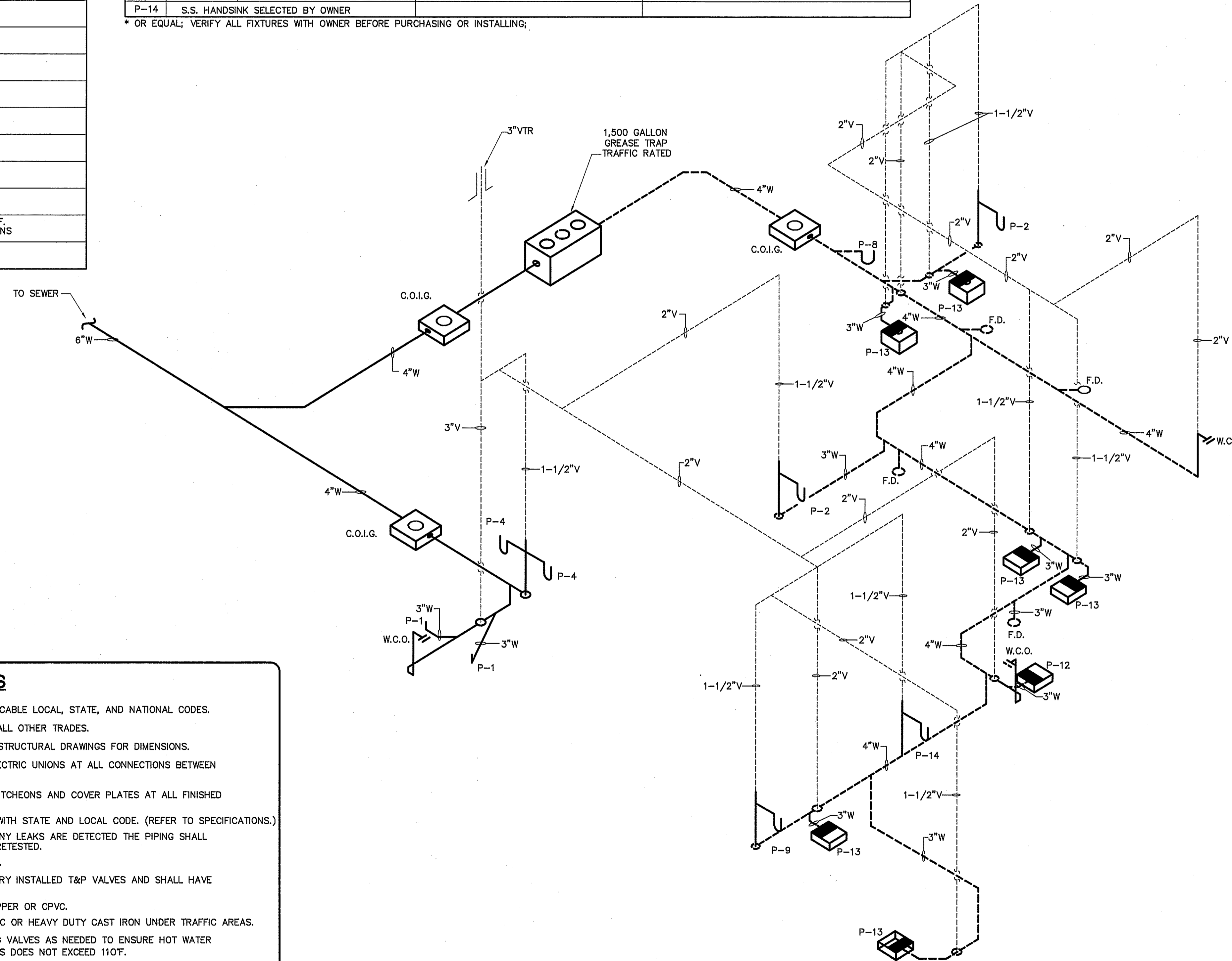
### PLUMBING LEGEND

DESCRIPTION	SYMBOL
COLD WATER	— CW
HOT WATER	— HW
COLD WATER (FILTERED)	— L
RECIRCULATED WATER	→ HWR
VENT PIPING	- - - V
WASTE PIPING	— NEW — GREASE — W
CLEAN OUT IN GRADE	□ C.O.I.G.
FLOOR CLEAN OUT	○ F.C.O.
NON FREEZE HOSE BIBB	— NFHB
FLOOR DRAIN	○ F.D.
CHECK VALVE	—
BALL VALVE	⊗
GATE VALVE	⊗
SHUT-OFF VALVE	⊗
DOUBLE CHECK VALVE	—
FIXTURE DESIGNATION	P--
MOUNTING HEIGHT	MH
POINT OF CONNECTION NEW TO EXISTING	⊙
FLOOR SINK	□
SHOCK ABSORBER W/BALL VALVE SHUT-OFF	SA
SIZE PER MANUF. RECOMMENDATIONS	—
CHANGE IN PIPE SIZE	—

### PLUMBING FIXTURE SCHEDULE

MARK	MAKE	MODEL	DESCRIPTION	NOTES
P-1	AMERICAN STANDARD	CADET 2467.016	EL 1.6/PA 16.5" HC ELONGATED WATER CLOSET HC ACCESSIBLE, TANK TYPE	WHITE 5321.110 SEAT
P-2			STAINLESS STEEL HAND SINK W/SIDE SPLASHES	
P-3			30"X48" SS PREP TABLE WITH SINK	
P-4	AMERICAN STANDARD	REGALYN 4869.004.020	CAST IRON WALL MOUNTED SINK	1340.227 FAUCET. PROVIDE W/BASKET DRAIN
P-5			GAS WATER HEATER	199,900 BTUH
P-6	ATOSA	MRSC-3-D	(3) 18"W X 24";14" DEEP WITH (2) 24" DRAINBOARDS & 10" HIGH BACKSPLASH	
P-7			SOILED TABLE WITH PRE-RINSE	
P-8	MUSTEE	65M	36"X24"X10" MOP SERVICE BASIN	PROVIDE W/ SERVICE FAUCET;HOSE AND HOSE HOLDER; MOP HANGER; AND DURAGUARD WALL GUARDS
P-9	UNITED REST. EQUIP. CO.	HANDSINK-SPLASHES	T & S MODEL NO. B-1146	
P-10	MANOTOWOC	IDT1200C	ICE MAKER CUBE STYLE	
P-11			DISHWASHER SELECTED & PROVIDED BY OWNER	
P-12	WATTS	FS-850	FLOOR SINK	
P-13	WATTS	FS-740	FLOOR SINK	
P-14			S.S. HANDSINK SELECTED BY OWNER	

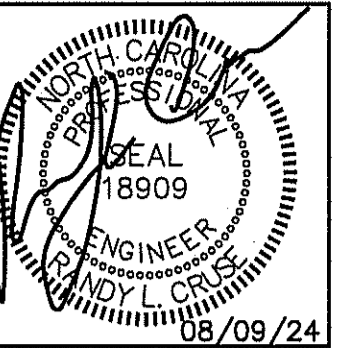
\* OR EQUAL; VERIFY ALL FIXTURES WITH OWNER BEFORE PURCHASING OR INSTALLING;



### GENERAL PLUMBING NOTES

- ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE LOCAL, STATE, AND NATIONAL CODES.
- CONTRACTORS SHALL COORDINATE PIPING WITH ALL OTHER TRADES.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL/STRUCTURAL DRAWINGS FOR DIMENSIONS.
- CONTRACTOR SHALL FURNISH AND INSTALL DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR METALS.
- CONTRACTOR SHALL FURNISH AND INSTALL ESCUTCHEONS AND COVER PLATES AT ALL FINISHED WALLS, CEILINGS AND FLOOR OPENINGS.
- PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH STATE AND LOCAL CODE. (REFER TO SPECIFICATIONS.)
- ALL PIPING SHALL BE TESTED FOR LEAKS. IF ANY LEAKS ARE DETECTED THE PIPING SHALL BE REPAIRED, RESOLDERED OR REPLACED AND RETESTED.
- ALL SOLDER SHALL BE OF THE LEAD FREE TYPE.
- WATER HEATER SHALL BE SUPPLIED WITH FACTORY INSTALLED T&P VALVES AND SHALL HAVE UNIONS AND ISOLATION VALVES.
- DOMESTIC WATER SUPPLY PIPING SHALL BE COPPER OR CPVC.
- WASTE AND VENT PIPING SHALL BE SCH. 40 PVC OR HEAVY DUTY CAST IRON UNDER TRAFFIC AREAS.
- INSTALL THERMOSTATICALLY CONTROLLED MIXING VALVES AS NEEDED TO ENSURE HOT WATER TEMPERATURE TO ALL HAND WASHING LOCATIONS DOES NOT EXCEED 110°F.
- ALL FLOOR DRAINS & HUB DRAINS SHALL BE PROVIDED WITH TRAP PRIMER EXCEPT FLOOR DRAINS IN TOILETS WHERE HOSE BIBB ARE PROVIDED.
- HOT WATER PIPING SHALL BE INSULATED WITH 1" THICK FIBROUS GLASS INSULATION. COLD WATER PIPING SHALL BE INSULATED WITH 1/2" FIBROUS GLASS INSULATION. VAPOR BARRIER SHALL BE APPLIED TO EACH.

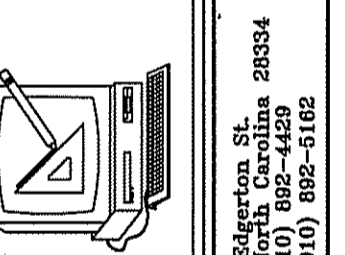
PLUMBING WASTE & VENT RISER DIAGRAM  
SCALE: NOT TO SCALE



PLANS FOR:  
MAMA B'S  
SOUTHERN KITCHEN  
COATS, NORTH CAROLINA

### REVISIONS

NO.	



Cruse  
And  
Associates, P.A.

114 E. Washington St.  
Raleigh, NC 27601  
TEL: (919) 882-4489  
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LICENSE NO.: C-1721

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JOB NO. 24-16

SHEET NO.

P-3 OF 3



# MECHANICAL SYMBOL LEGEND

SINGLE LINE	DOUBLE LINE	DESCRIPTION								
		TAKE OFF TO SUPPLY AIR REGISTER WITH EXT. INSUL. DUCTWORK								
		BRANCH TAKEOFF FROM MAIN TRUNK DUCT WITH EXT. INSUL. DUCTWORK								
		END CAP								
		DUCT SMOKE DETECTOR								
		ACCESS DOOR <table border="1"> <thead> <tr> <th>DOOR SIZE</th> <th>DUCT HEIGHT</th> </tr> </thead> <tbody> <tr> <td>8X8</td> <td>10"</td> </tr> <tr> <td>10X10</td> <td>12"</td> </tr> <tr> <td>12X12</td> <td>14" &amp; LARGER</td> </tr> </tbody> </table>	DOOR SIZE	DUCT HEIGHT	8X8	10"	10X10	12"	12X12	14" & LARGER
DOOR SIZE	DUCT HEIGHT									
8X8	10"									
10X10	12"									
12X12	14" & LARGER									
		VOLUME CONTROL DAMPER (TYP)								
		CEILING DIFFUSER								
		FLEXIBLE DUCTWORK (14' MAX.)								
		ONE SIDED REDUCING TRANSITION								
		F.D.=FIRE DAMPER (1-1/2)=RATED FOR 1-1/2 HRS.								
		RETURN AIR OR EXHAUST GRILLE								
		SUPPLY AIR CEILING DIFFUSER, ARROW INDICATES DIRECTION OF BLOW & ACTIVE DIFFUSER SIDES								
		(1)CUSHION HEAD @ BRANCH OR DIFFUSER RUNOUT (2)CUSHION HEAD IS EQUAL TO 1-1/2 WIDTH OF THE BRANCH DUCT OR DIFFUSER RUNOUT								
		R.A. OR EXHAUST DUCT TURNS DOWN @ 90 DEGS.								
		MANUAL VOLUME CONTROL DAMPER W/ QUADRANT LOCKING DEVICE								
		TWO SIDED TRANSITION								
		ELECT. DUCT INSERT HEATER WITH CONTROL PANEL								
		AHU W/FLEXIBLE CONNECTION AT SUPPLY AND RETURN DUCT								
		KEY NOTE								
		MARK								
		CFM-DIFFUSER, REGISTER OR GRILLE (SEE SCHEDULE)								
		EXHAUST FAN								

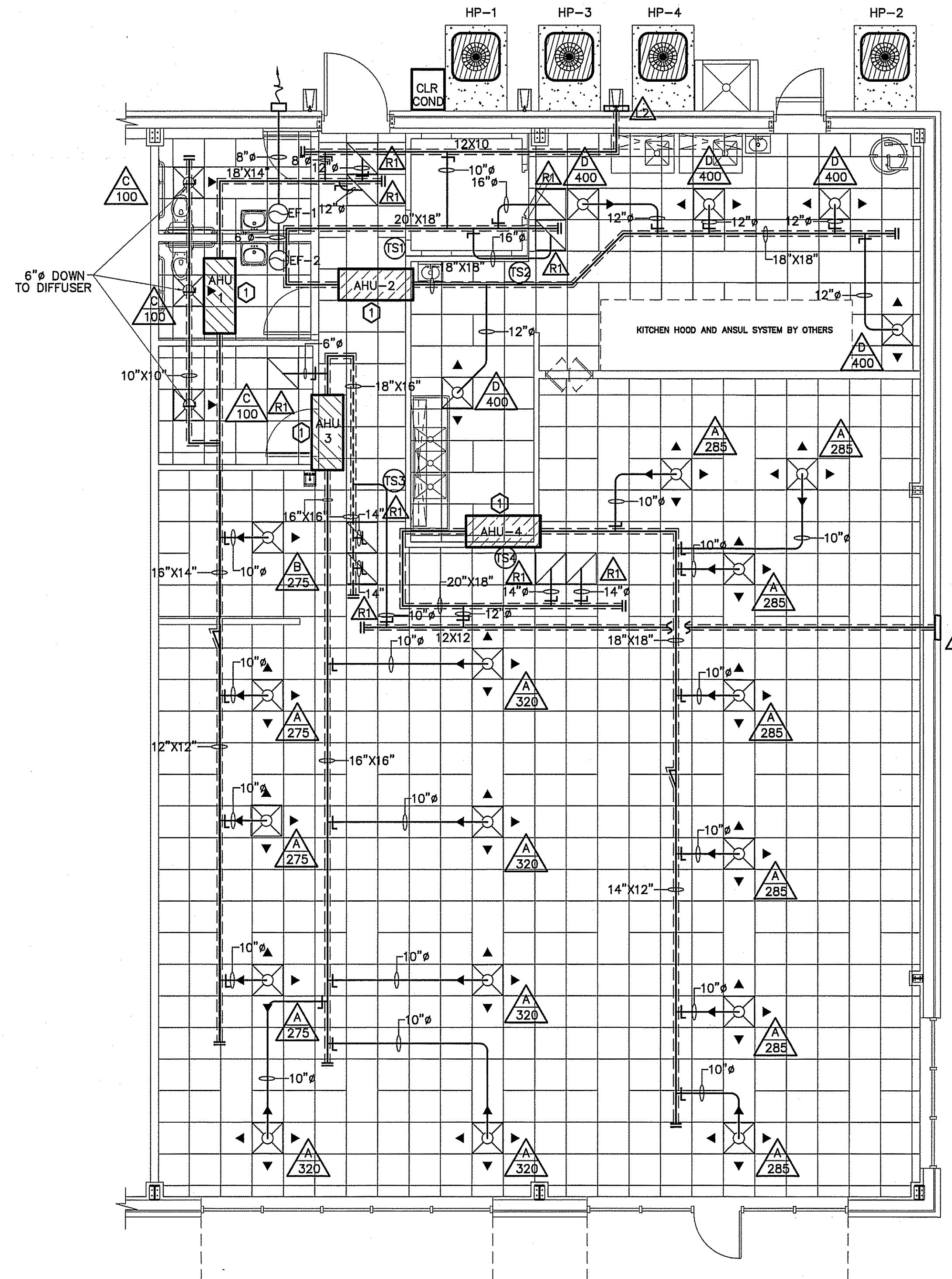
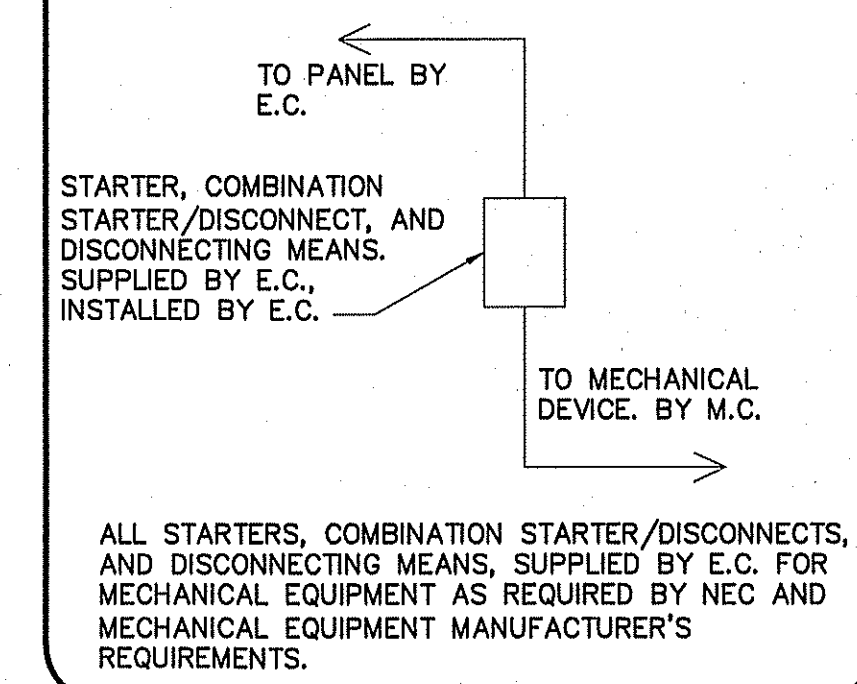
## KEY NOTES:

① SEE SHEET P-1 TO MAINTAIN CLEARANCE FOR ABOVE CEILING AHU ACCESS

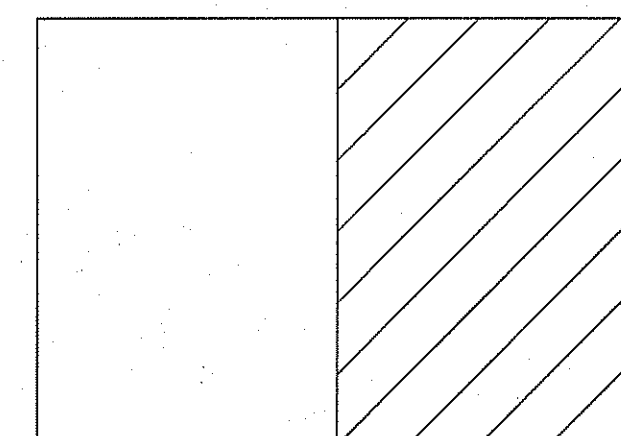
## NOTE:

VERIFY LOCATION OF THERMOSTATS WITH OWNER BEFORE BEGINNING CONSTRUCTION. USE RETURN DUCT SENSOR IF OWNER DESIRES REMOTE THERMOSTAT LOCATIONS.

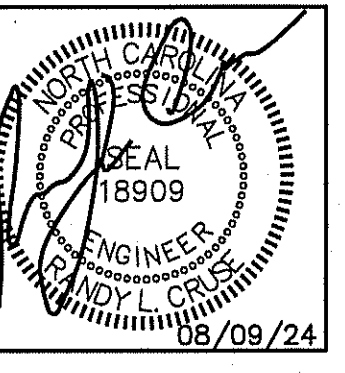
## CONNECTION SCHEDULE



MECHANICAL HVAC PLAN  
SCALE: 3/16" = 1'-0"

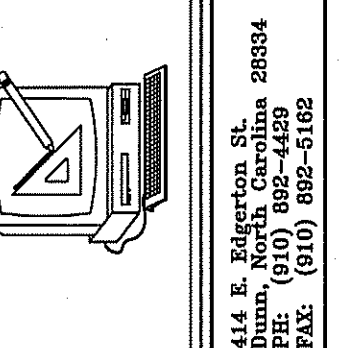


KEY PLAN



PLANS FOR:  
MAMA B'S  
SOUTHERN KITCHEN  
COATS, NORTH CAROLINA

REVISIONS	
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SHEET NO.  
M-1 OF 3

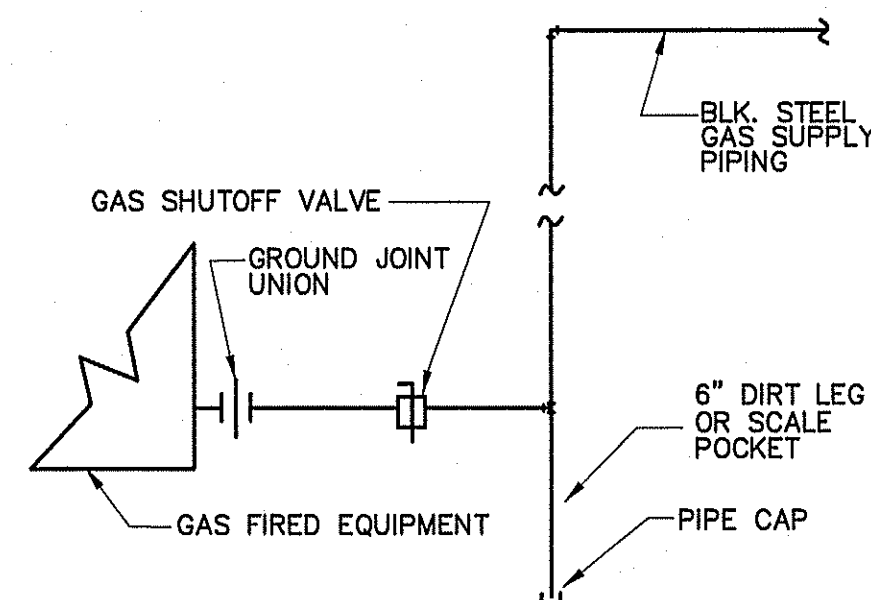
**GAS PIPING NOTES**

- METALLIC GAS PIPING SHALL BE STEEL PIPE COMPLYING WITH ANSI B36.10, ASTM A 53 OR ASTM A 106. COPPER OR BRASS PIPE IN STEEL PIPE SIZES ASSEMBLED WITH THREADED FITTINGS OF THE SAME MATERIALS MAY BE USED WHEN THE GAS DOES NOT CONTAIN MORE THAN AN AVERAGE OF 0.3 GRAINS OF HYDROGEN SULFIDE PER 100 STANDARD CUBIC FEET OF GAS ( A TRACE AS DETERMINED UNDER ASTM D 2385 OR ASTM D 2420). COPPER TUBING OR CSST WILL ALSO BE ALLOWED.
- PIPE JOINTS MAY BE THREADED, FLANGED OR WELDED AND NONFERROUS PIPE MAY ALSO BE BRAZED WITH MATERIALS HAVING A MELTING POINT IN EXCESS OF 1,000 DEGREES F (538 DEGREES C). BRAZING ALLOYS SHALL NOT CONTAIN PHOSPHOROUS.
- TUBING JOINTS SHALL EITHER BE MADE WITH FLARED GAS TUBING FITTINGS, OR BRAZED WITH A MATERIAL HAVING A MELTING POINT IN EXCESS OF 1,000 DEGREES F (538 DEGREES C). BRAZING ALLOYS SHALL NOT CONTAIN PHOSPHOROUS. METALLIC BALL SLEEVE COMPRESSION TYPE TUBING FITTINGS SHALL NOT BE USED FOR THIS PURPOSE INSIDE OR UNDER BUILDINGS BUT MAY BE USED
- FITTINGS (EXCEPT STOPCOCKS OR VALVES) SHALL BE MALLEABLE IRON OR STEEL WHEN USED WITH STEEL OR WROUGHT IRON PIPE AND SHALL BE COPPER OR BRASS WHEN USED WITH COPPER OR BRASS PIPE OR TUBING.
- GAS PIPING AND FITTINGS SHALL BE CLEAR AND FREE FROM CUTTING BURRS AND DEFECTS IN STRUCTURE OR THREADING AND SHALL BE THOROUGHLY BRUSHED AND SCALE BLOWN.
- ALL GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NCSBC FUEL GAS CODE & NFPA 54.
- JOINT COMPOUNDS (PIPE DOPE) SHALL BE APPLIED SPARINGLY AND ONLY TO THE MALE THREADS OF METALLIC JOINTS. SUCH COMPOUNDS SHALL BE RESISTANT TO THE ACTION OF LIQUEFIED PETROLEUM GASES.
- ALL EXPOSED STEEL PIPE/FITTINGS SHALL BE PRIMED AND PAINTED FOR PROTECTION. GRADE ALL GAS PIPING AT 1/4" PER 10' TOWARD LOW POINT.
- SHUTOFF VALVES (STOP COCKS) SHALL COMPLY WITH ANSI Z21.15, ANSI Z21.21, OR ANSI B16.33 OR ANSI/UL 842. ALL VALVES SHALL BE MANUAL. HOUSE VALVE SHALL BE EQUIPPED WITH LOCKING LUGS FOR SECURITY.

**GAS PIPING SIZING**

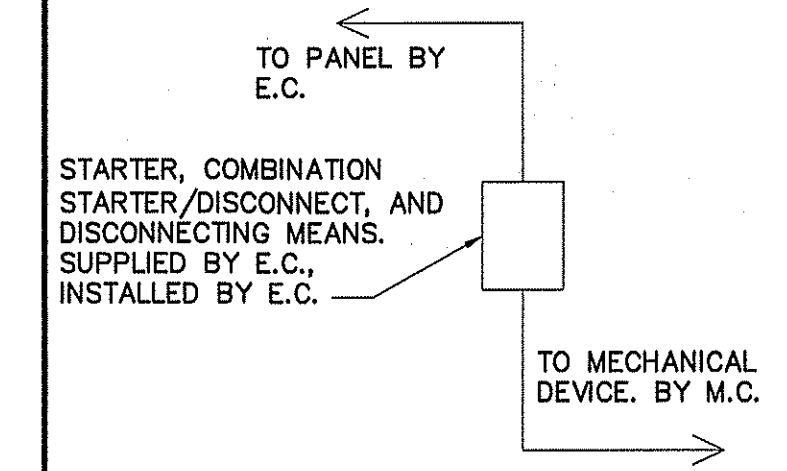
OUTLET "A"	120 MBH
OUTLET "B"	90 MBH
OUTLET "C"	90 MBH
OUTLET "D"	219 MBH
OUTLET "E"	199 MBH
TOTAL	718 MBH

LENGTH OF PIPE FROM THE POINT OF DELIVERY TO MOST REMOTE OUTLET (OUTLET "G") IS 64 FT.  
 PIPE SIZED USING 0.5" W.C. PRESSURE DROP AT 11" W.C. INLET SETTING - UNDILUTED PROPOANE CAPACITIES IN 1,000 BTU/HR. PIPE SIZED USING TABLE 402.4(28), SCHEDULE 40 METALLIC PIPE, PROPANE GAS.

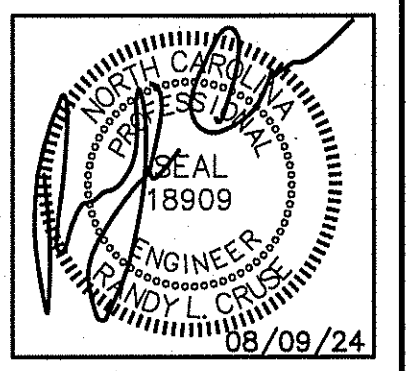


**DETAIL-TYPICAL GAS PIPING CONNECTION TO EQUIPMENT**  
 NOT TO SCALE

**CONNECTION SCHEDULE**



ALL STARTERS, COMBINATION STARTER/DISCONNECTS, AND DISCONNECTING MEANS, SUPPLIED BY E.C. FOR MECHANICAL EQUIPMENT AS REQUIRED BY NEC AND MECHANICAL EQUIPMENT MANUFACTURER'S REQUIREMENTS.



PLANS FOR:  
**MAMA B'S**  
 SOUTHERN KITCHEN  
 COATS, NORTH CAROLINA

REVISIONS	
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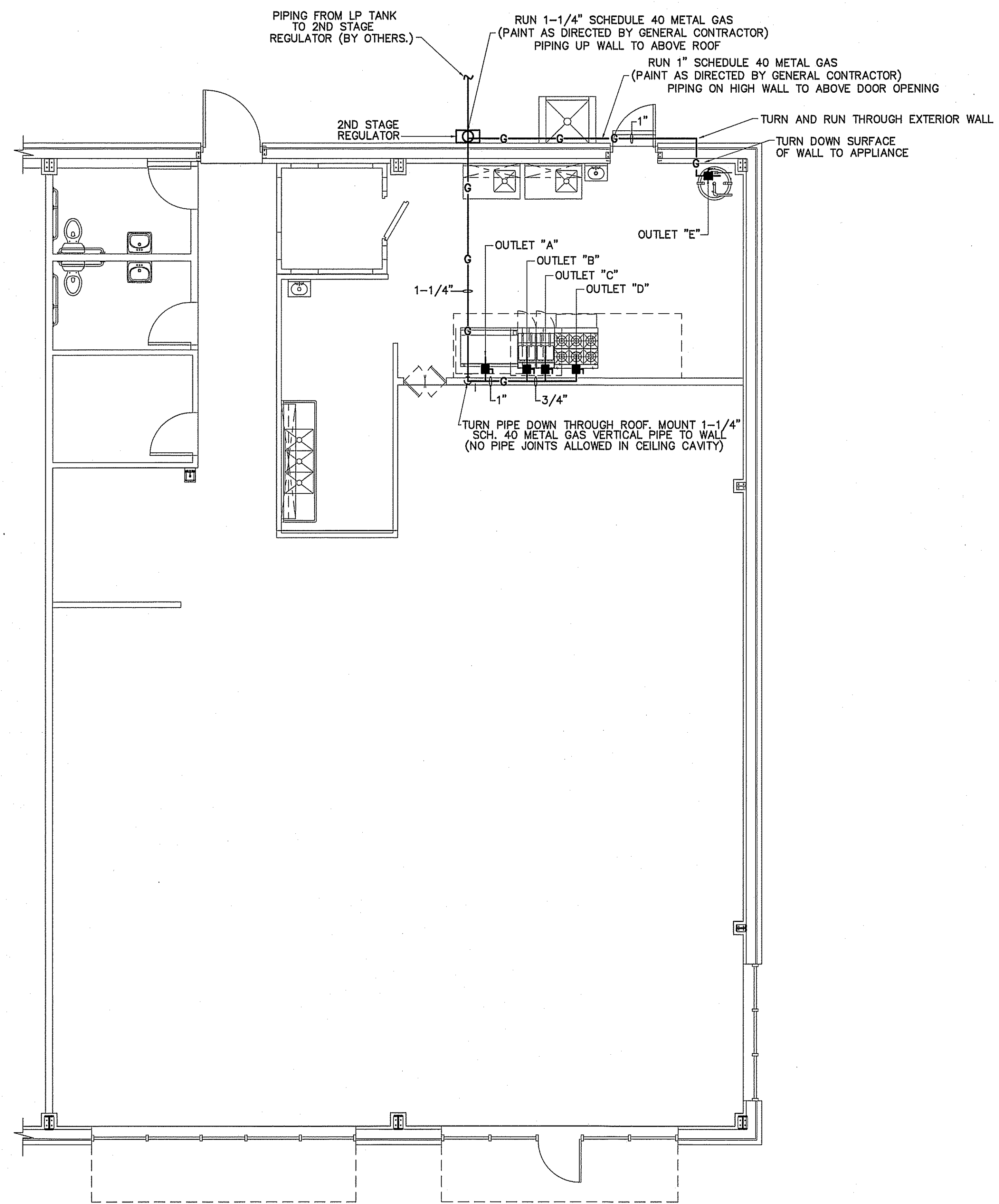
414 E. Edgerton St.  
 Durham, North Carolina 28334  
 PHONE: (919) 896-3162  
 FAX: (919) 896-3162

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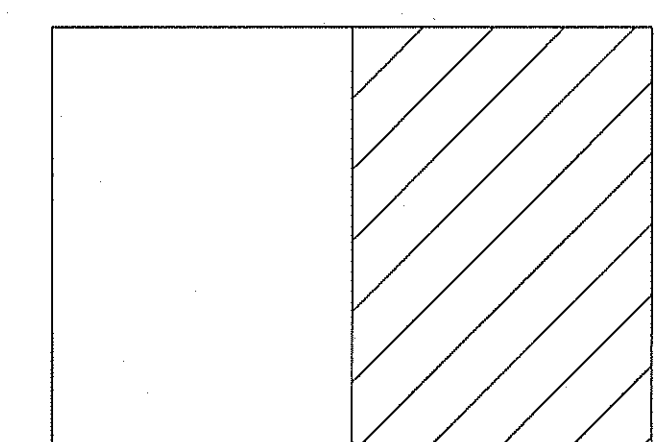
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SHEET NO.  
**M-2 OF 3**



**GAS PIPING PLAN**  
 SCALE: 3/16" = 1'-0"



**KEY PLAN**



AIR HANDLER UNIT																SPLIT SYSTEM HEAT PUMP UNITS											
AHU NO.	MANUFACTURER	MODEL	VOLTAGE	E.S.P.	OUTSIDE AIR CFM	CFM	UNIT FLA	REF LINES		SEER	HTR KW (208)	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		HSPF	MIN. CIRC. AMPACITY	M.O.C.P.	MARK	MANUF.	MODEL	VOLTAGE	# COMP./NO. STAGES	MIN. CIRC. AMPACITY	M.O.C.P.	UNIT FLA.	ACCESSORIES
								GAS	LIQ.			TOTAL	SENS.	HIGH	LOW												
AHU-1	TRANE	TEM6AOC4BH41	208/1/60	.46	200	1400	34.6	3/4	3/8	17.0	7.2	42.0	30.3	39.0		9.6	52	60	HP-1	TRANE	4TWR6042N1000A	208/1/60	1-2S	24	40	19.5	EXCLUDE 8,18
AHU-3	TRANE	TEM6AOC4BH41	208/1/60	.46	300	1600	34.6	7/8	3/8	16.0	7.2	46.5	31.8	42.5		9.0	52	60	HP-3	TRANE	4TWR6048N1000A	208/1/60	1-2S	28	45	22.2	EXCLUDE 8,18
AHU-2,4	TRANE	TEM6AOD60H51	208/1/60	.46	400	2000	34.6	7/8	3/8	15.0	7.2	55.0	42.9	56.9	37.0	9.0	52	60	HP-2,4	TRANE	4TWR6060N1000A	208/1/60	1-2S	35	60	28.2	EXCLUDE 8,18

\*\* PROVIDE OUTDOOR THERMOSTAT TO LOCK OUT SUPPLEMENTAL ELECTRIC HEAT AT OUTDOOR TEMPERATURES ABOVE 40F.

- ACCESSORIES
- |                               |  |  |
|-------------------------------|--|--|
| 1 TIME-DELAY RELAY            | 7 LIQUID SOLENOID VALVE                                  | 13 DISCHARGE LINE MUFFLER                  |
| 2 CYCLE PROTECTOR             | 8 LOW-AMBIENT CONTROLLER                                 | 14 SUCTION AND LIQUID LINE SHUT OFF VALVES |
| 3 EVAPORATOR FREEZE PROTECTOR | 9 FILTER DRIER (LIQUID LINE)                             | 15 THERMOSTAT (SEE NOTE)                   |
| 4 ISOLATION RELAY             | 10 OUTDOOR T'STAT TO LOCK OUT AUX. HT. (SET @ 40° F ADJ) | 16 SUPPORT FEET                            |
| 5 TXV                         | 11 LOW PRESSURE CONTROL                                  | 17 COIL GUARDS                             |
| 6 HIGH PRESSURE SWITCH        | 12 CRANKCASE HEATER                                      | 18 HUMIDISTAT                              |
- COOLING CAPACITY @ 80 DEG. F DB/67 DEG WB AIR ENTERING INDOOR UNIT & 95 DEG. F DB AIR ENTERING OUTDOOR UNIT  
 HEATING CAPACITY: HIGH TEMP = 70 DEG F DB INDOOR EAT & 47 DEG F DB/43 DEG F WB AIR ENTERING OUTDOOR UNIT  
 LOW TEMP = 70 DEG F DB INDOOR EAT & 17 DEG F DB/15 DEG F WB ENTERING OUTDOOR UNIT
- T-STAT: THE NUMBER OF STAGES OF HEATING/COOLING SHALL MATCH THE NUMBER OF STAGES OF HEAT AVAILABLE IN THE HPIU OR THE NUMBER OF STAGES OF COOLING AVAILABLE IN THE HPOU. PROVIDE WITH T-STAT; 7 DAY PROGRAMMABLE, DIGITAL.

### REGISTER, GRILLE, & DIFFUSER SCHEDULE\*

MARK	DESCRIPTION	MAX. NC	NECK	BORDER TYPE	MATERIAL	FINISH	MANUF.	MODEL NUMBER	ACCESSORIES/NOTES
A	DIFFUSER-4-WAY	30	9"X9"	LAY-IN	STEEL	WHITE	TITUS	TDC 9X9 3 26 4	SQ-TO-RND
B	DIFFUSER-2-WAY	30	9"X9"	LAY-IN	STEEL	WHITE	TITUS	TDC 9X9 3 26 2	SQ-TO-RND
C	DIFFUSER-1-WAY	30	6"X6"	LAY-IN	STEEL	WHITE	TITUS	TDC 6X6 3 26 1	SQ-TO-RND
D	DIFFUSER-2-WAY	30	12"X12"	LAY-IN	STEEL	WHITE	TITUS	TDC 12X12 3 26 2	SQ-TO-RND
R1	RETURN GRILLE	30	20"X20"	LAY-IN	STEEL	WHITE	TITUS	23RFL 20X20 24X24 3 26	SQ-TO-RND

\* VERIFY CEILING TYPE BEFORE ORDERING, NARROW TEE REQUIREMENTS, PLASTER FRAMES ETC. TO BE INCLUDED WITH DIFFUSERS AT NO ADDITIONAL COST TO OWNER

### EXHAUST FAN SCHEDULE

MARK	MAKE	MODEL	TYPE	CFM	EXTERNAL S.F. IN (W.G.)	AMPS	ELECTRICAL			NOTES
							VOLT	PH	HZ	
EF-1,2	GREENHECK	SP-A90	CEILING FAN	70	.125	.34	115	1ø	60	WC-8 WALL CAP

### LOUVER SCHEDULE

MARK	DESCRIPTION	SERVES	CFM	APPROXIMATE OUTSIDE DIMENSIONS ( W X H )	MODEL
L1	OUTSIDE AIR LOUVER	AHU 3 & 4	700	24"X24"	HART & COOLEY 1530ZF 24X24 W/ INSECT SCREEN
L2	OUTSIDE AIR LOUVER	AHU 1 & 2	500	24"X18"	HART & COOLEY 1530ZF 18X18 W/ INSECT SCREEN

\*COLOR SELECTED BY OWNER OR PAINTED TO MATCH AS DIRECTED BY OWNER.

**NOTE:**  
COLORS & STYLES OF DEVICES TO BE SELECTED BY OWNER.

### MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT THERMAL ZONE 4A - HARNETT COUNTY, NC

WINTER DRY BULB 16 DEG. F.

SUMMER DRY BULB 93 DEG. F.

#### INTERIOR DESIGN CONDITIONS

WINTER DRY BULB 59 DEG. F.

SUMMER DRY BULB 78 DEG. F.

RELATIVE HUMIDITY 55%

**BUILDING HEATING LOAD** 47 MBH

**BUILDING COOLING LOAD** 17.5 TONS

#### MECHANICAL SPACE CONDITIONING SYSTEM

UNITARY

DESCRIPTION OF UNIT - HEAT PUMP  
HEATING EFFICIENCY - 9.0 HSPF  
COOLING EFFICIENCY - 15.0 SEER  
SIZE CATEGORY OF UNIT - ≤ 65,000 BTUH

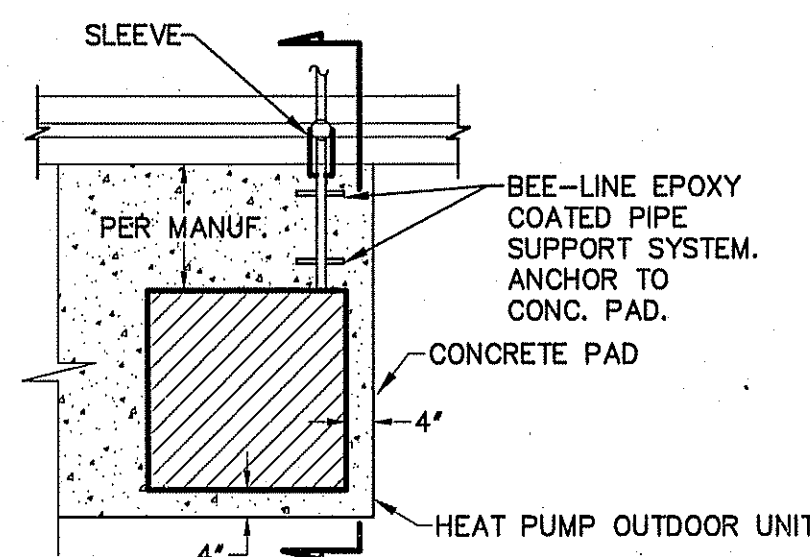
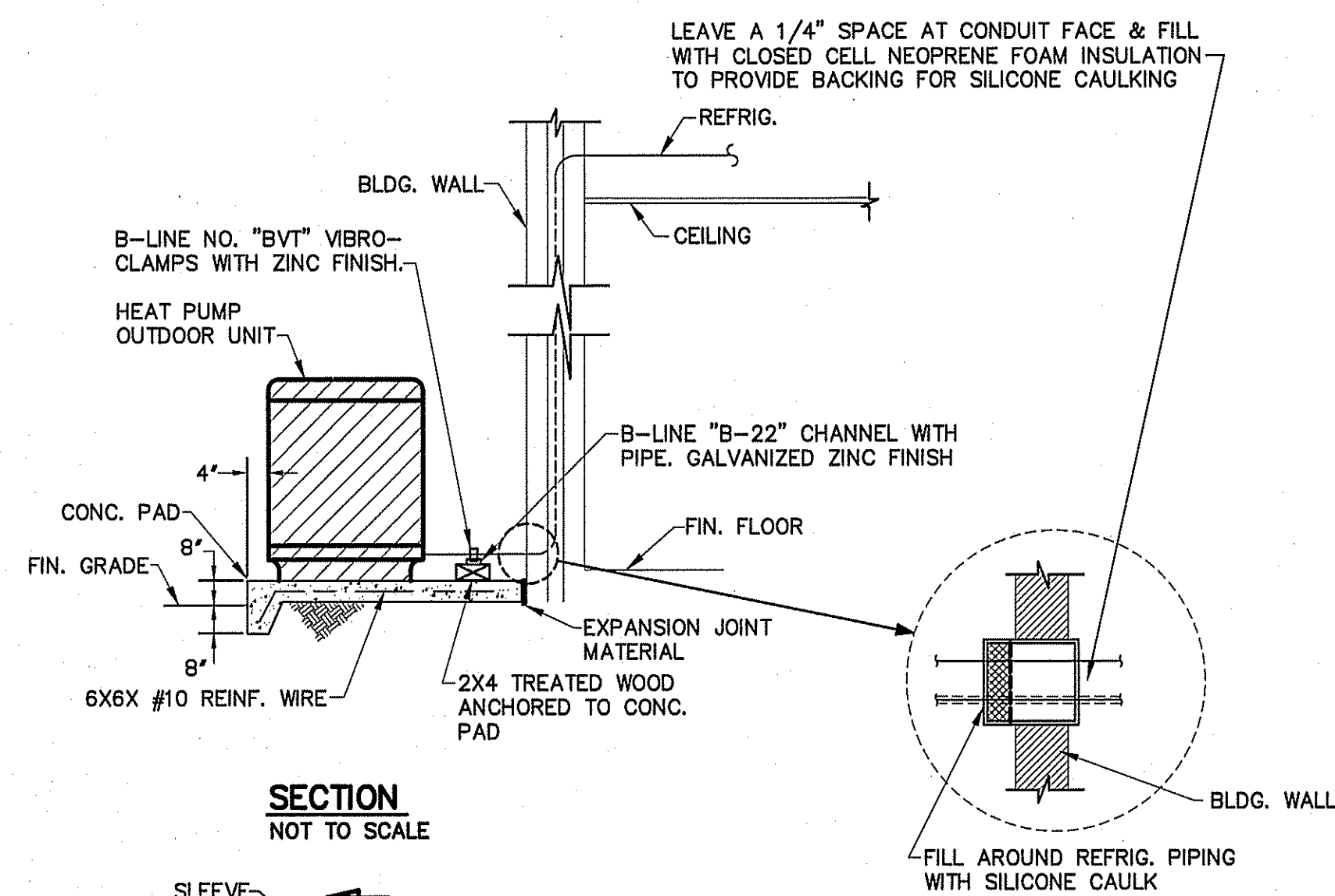
BOILER

SIZE CATEGORY. IF OVERSIZED, STATE REASON: N/A

CHILLER

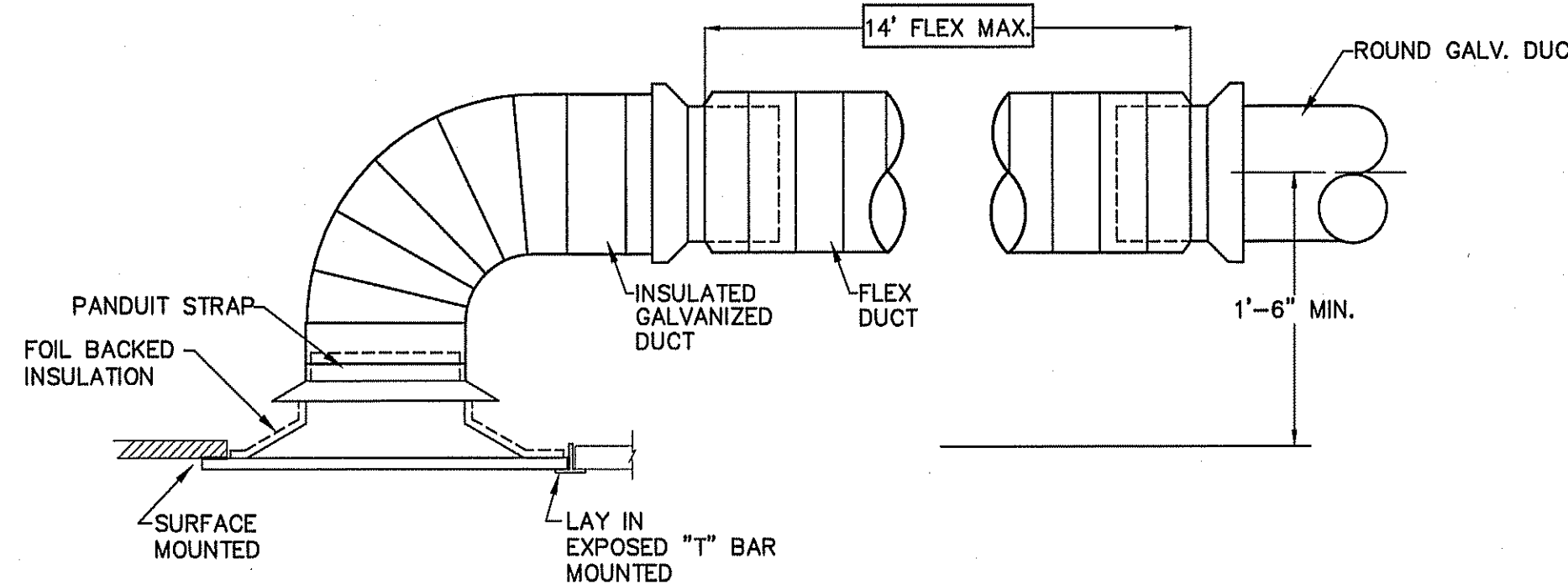
SIZE CATEGORY. IF OVERSIZED, STATE REASON: N/A

**LIST EQUIPMENT EFFICIENCIES** SEE SCHEDULE

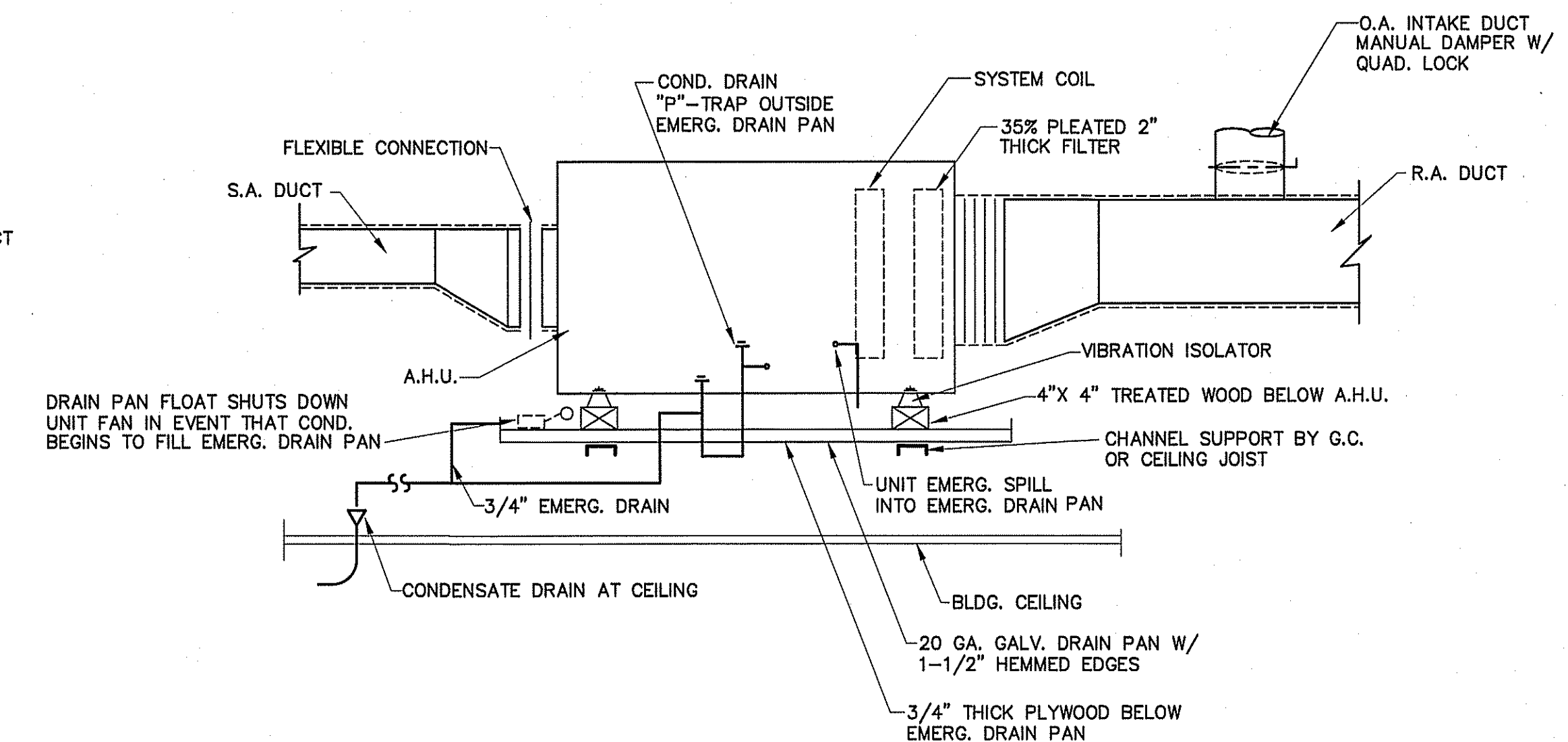


### DETAIL-TYPICAL HEAT PUMP OUTDOOR UNIT

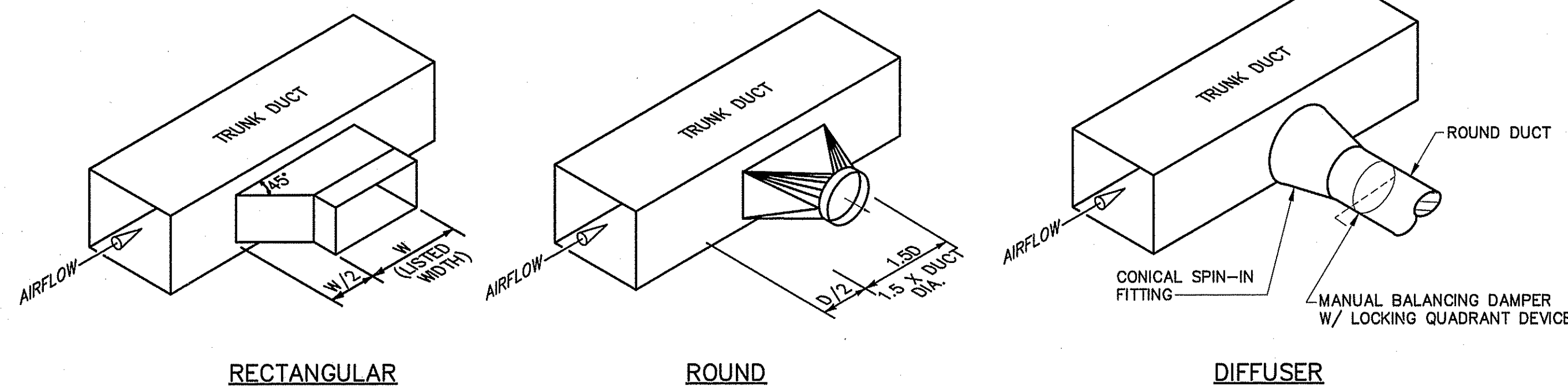
NOT TO SCALE



### DETAIL-CEILING DIFFUSER CONNECTION NOT TO SCALE



### TYPICAL DETAIL AT AIR HANDLING UNITS NOT TO SCALE

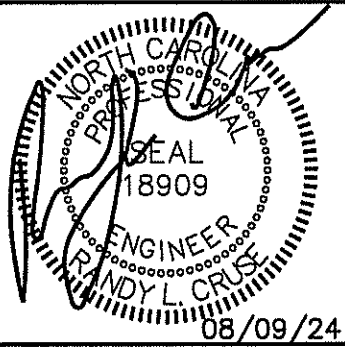


### TYPICAL LATERAL TO REGISTER OR BRANCH DUCT

NOT TO SCALE

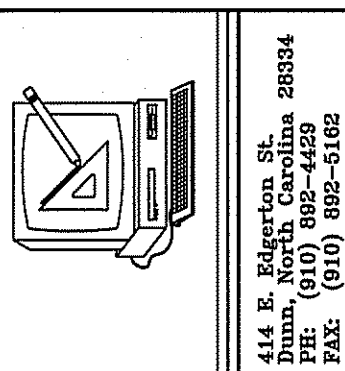
### MECHANICAL NOTES (GENERAL)

- DUCTWORK LAYOUTS ARE SCHEMATIC. ALL RISES, DROPS, OFFSETS, AND TRANSITIONS REQUIRED BUT ARE NOT SHOWN SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- DUCTWORK SHALL BE GALVANIZED STEEL AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH SMACNA STANDARDS FOR LOW VELOCITY DUCTWORK. DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. FLEXIBLE RUNOUTS SHALL NOT EXCEED 15' AND SHALL NOT BE USED TO FORM ELBOWS. CONNECTIONS FROM RECTANGULAR TO ROUND DUCT SHALL BE MADE WITH MANUFACTURED 45 DEG. LATERAL TAPS.
- ALL DUCTWORK SHALL BE SEALED AIR TIGHT WITH SEALING COMPOUND.
- ALL ELBOWS IN DUCTWORK SHALL BE RADIUS ELBOWS, UNLESS NOTED OTHERWISE. WHERE SQUARE ELBOWS ARE SHOWN, INSTALL TURNING VANES. DUCT SIZES SHOWN ARE NET INTERIOR DIMENSIONS.
- THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER TRADES PRIOR TO INSTALLATION OF ANY OF HIS PIPING, DUCTWORK, OR EQUIPMENT.
- THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE ENGINEER.
- IT WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER HIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE AND INTENT MEANING OF THE PLANS AND SPECIFICATIONS. HE SHALL PROVIDE THE ENGINEER SCALED DRAWINGS OF ALL MECHANICAL DRAWINGS.
- ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE.
- PROVIDE FACTORY OR FIELD INSTALLED DRAIN PANS UNDER ALL COOLING COIL UNITS. INSTALL DRAIN PAN FLOAT TO SHUT DOWN UNIT FAN IN EVENT THAT CONDENSATE BEGINS TO FILL EMERGENCY DRAIN PAN. RUN ALL CONDENSATE DRAIN LINES TO APPROPRIATE DRAIN.



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SHEET NO.  
M-3 OF 3

ELECTRICAL LEGEND	
MARK	DESCRIPTION
Ⓜ	GFI DUPLEX WITH WEATHERPROOF COVER
Ⓜ	GROUND FAULT INTERRUPTING RECEPTACLE
Ⓜ	208V OR 240 V RECEPTACLE
◀	TELEPHONE/DATA OUTLET
Ⓜ	JUNCTION BOX
Ⓜ	FUSED DISCONNECT SWITCH
Ⓜ	"STEEL CITY" FLOOR BOX WITH CAT 5E CABLE FOR DATA
↔	SWITCHED BRANCH CIRCUIT
↔	UNSWITCHED BRANCH CIRCUIT
↔	120/208 VOLT CIRCUIT
Ⓜ	CEILING OR ATTIC MOUNTED DUPLEX RECEPTACLE
Ⓜ	LIGHT FIXTURE (WALL/CEIL.)
Ⓜ	FLUORESCENT FIXTURE
Ⓜ	UNSWITCHED FIXTURE
Ⓜ	'EXIT' LIGHT FIXTURE, TYPE 'EX'
Ⓜ	BATTERY OPERATED EMERG. LT. (2-HEAD, WALL MTD.)
Ⓜ	SINGLE-POLE SWITCH
Ⓜ	3-WAY SWITCH (4-WAY SWITCH)
Ⓜ	DUPLEX RECEPTACLE
Ⓜ	CEILING MOUNTED RECEPTACLE
Ⓜ	EMERGENCY LIGHT REMOTE WEATHERHEAD(S)
Ⓜ	WALL MOUNTED OCCUPANCY SENSOR WITH SWITCH
Ⓜ	CEILING MOUNTED OCCUPANCY SENSOR

LIGHT FIXTURE SCHEDULE							
MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMPS	BALLASTS	WATTAGE	REMARKS
A	2X4 LED FLAT PANEL LAY-IN	-	SELECTED BY OWNER	LED		32.0	4000/5000/6000 LUMEN OPTION
B	2X4 LED FLAT PANEL LAY-IN	-	SELECTED BY OWNER	LED		42.0	4000/5000/6000 LUMEN OPTION
EM	EMERGENCY LIGHT WITH BATTERY BACKUP	SURE-LITES	CC8MRT2142SM				
EX	LED TYPE EXIT LIGHT WITH BATTERY BACKUP	SURE-LITES	LPX 70 RWH 120/277				
EM2	EMERGENCY LIGHT REMOTE WEATHERHEAD(S)	SURE-LITES	12T-12-WWH OR 12T-12-DWH OR EQUAL				

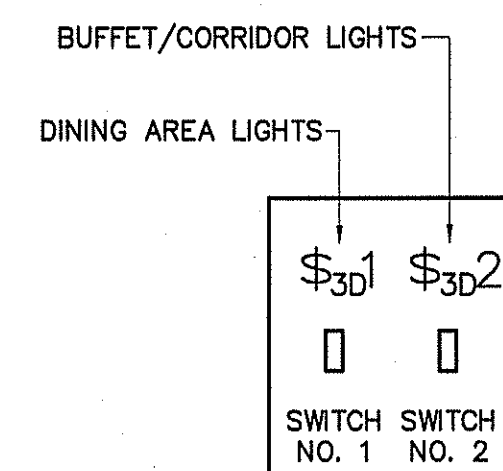
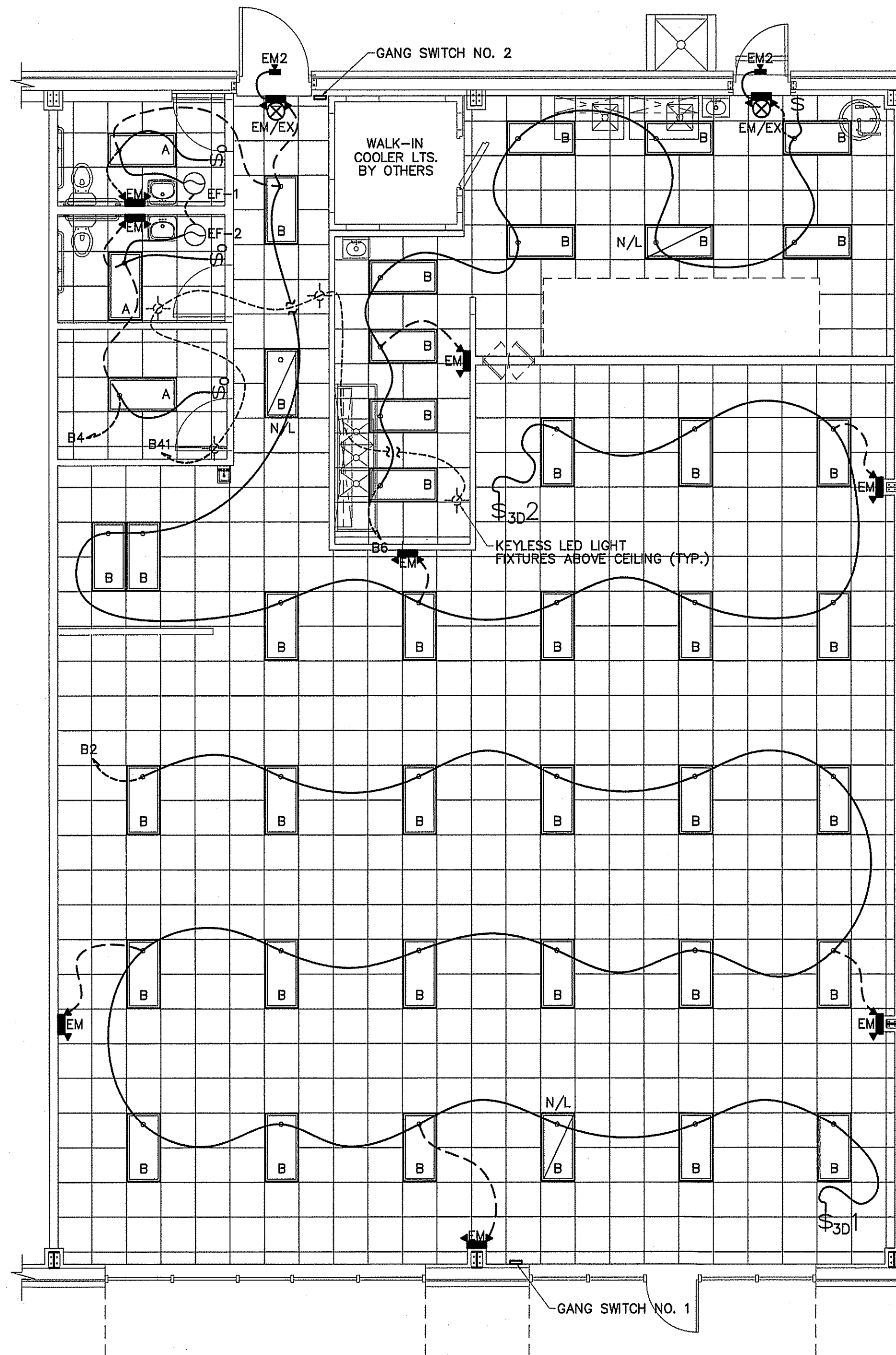
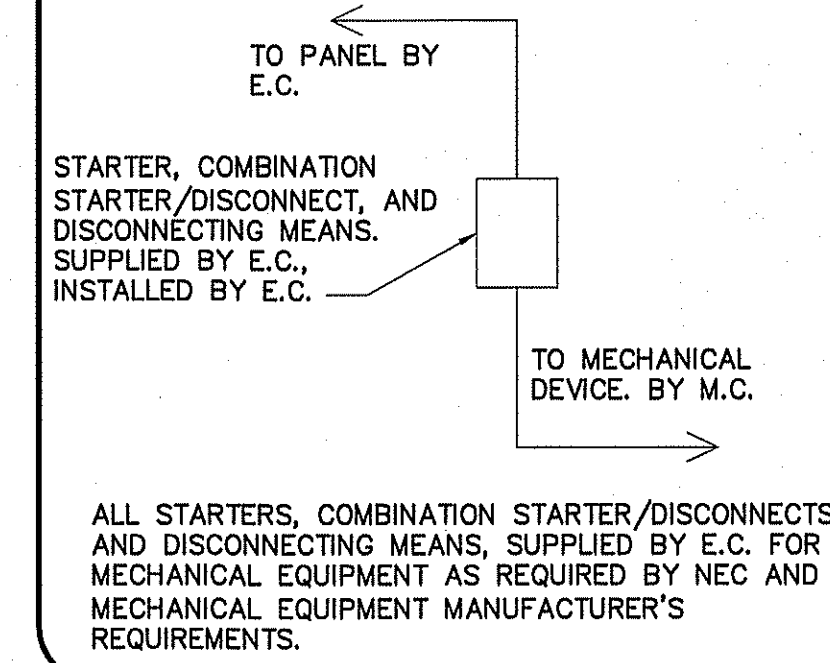
FIXTURES BY SCHEDULE OR EQUAL. FIXTURES SELECTED BY OWNER AND PURCHASED BY CONTRACTOR  
 \* BEFORE PURCHASING, VERIFY EXTERIOR FIXTURES MEET ZONING ORDINANCE  
 \*\* INCLUDE HANGERS FOR FIXTURES IN FITNESS AREA TO BE HUNG APPROXIMATELY 12' & BELOW THE DUCT WORK.

**NOTES:**

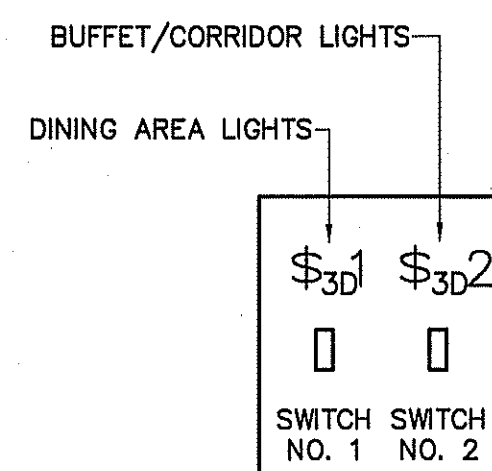
1. ALL FIXTURES ARE TO BE APPROVED BY OWNER BEFORE PURCHASE.
2. SHOULD FIXTURE WATTAGE VARY FROM SCHEDULE, E.C. SHALL VERIFY CIRCUIT LOADING BEFORE BEGINNING CONSTRUCTION.
3. ALL STYLES, COLORS, FINISHES AND LOCATIONS OF FIXTURES/EQUIPMENT, AND DEVICES SHALL BE SELECTED BY OWNER.
4. VERIFY ALL SWITCH LOCATIONS WITH OWNER BEFORE BEGINNING CONSTRUCTION.
5. SEE SHELL BUILDING PLANS FOR EXTERIOR LIGHTING LAYOUT.

LIGHTING DATA FOR ENERGY CODE					
AREA USE	AREA FT <sup>2</sup>	WATTS PER FT <sup>2</sup> ALLOWED	TOTAL WATTS ALLOWED	TOTAL WATTS USED	TOTAL WATTS LEFT OVER
RESTAURANT	3500	1.5	5250	1314	3936
TOTAL	3500		5250	1314	3936

**CONNECTION SCHEDULE**

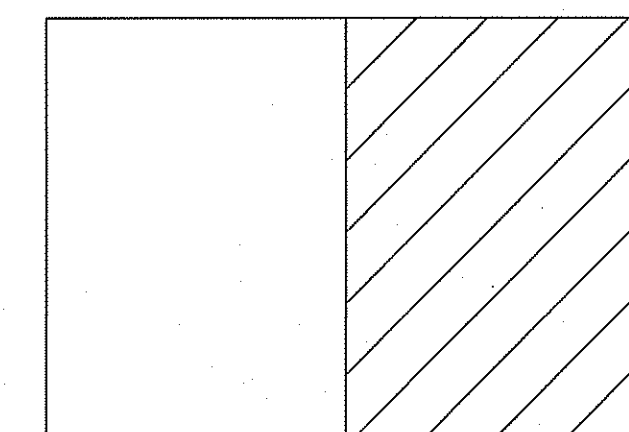


**DETAIL-GANG SWITCH NO. 1**  
NOT TO SCALE



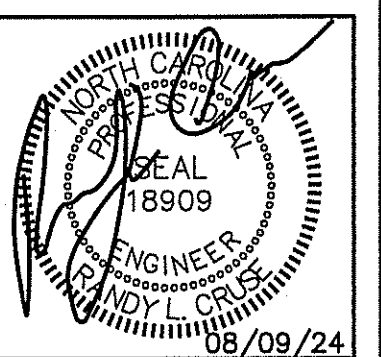
**DETAIL-GANG SWITCH NO. 2**  
NOT TO SCALE

**ELECTRICAL LIGHTING PLAN**  
SCALE: 3/16" = 1'-0"



**KEY PLAN**

**NOTE:**  
E.C., OWNER, AND G.C. TO VERIFY ALL EQUIPMENT LOCATIONS, SPECIFICATIONS, & REQUIREMENTS BEFORE BEGINNING CONSTRUCTION.



PLANS FOR:  
MAMA B'S  
SOUTHERN KITCHEN  
COATS, NORTH CAROLINA

REVISIONS	
NO.	

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 LICENSE NO.: 0-1721

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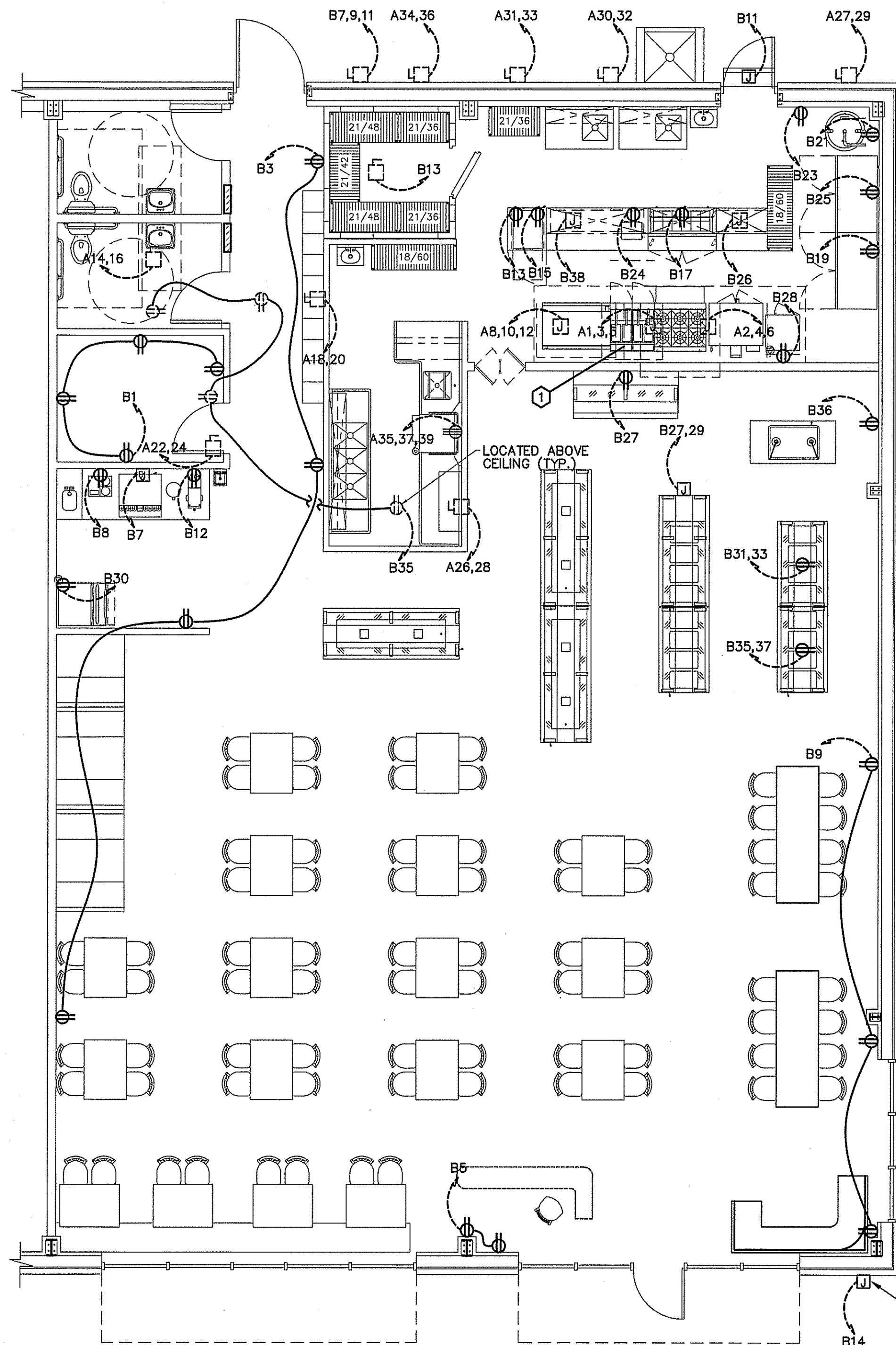
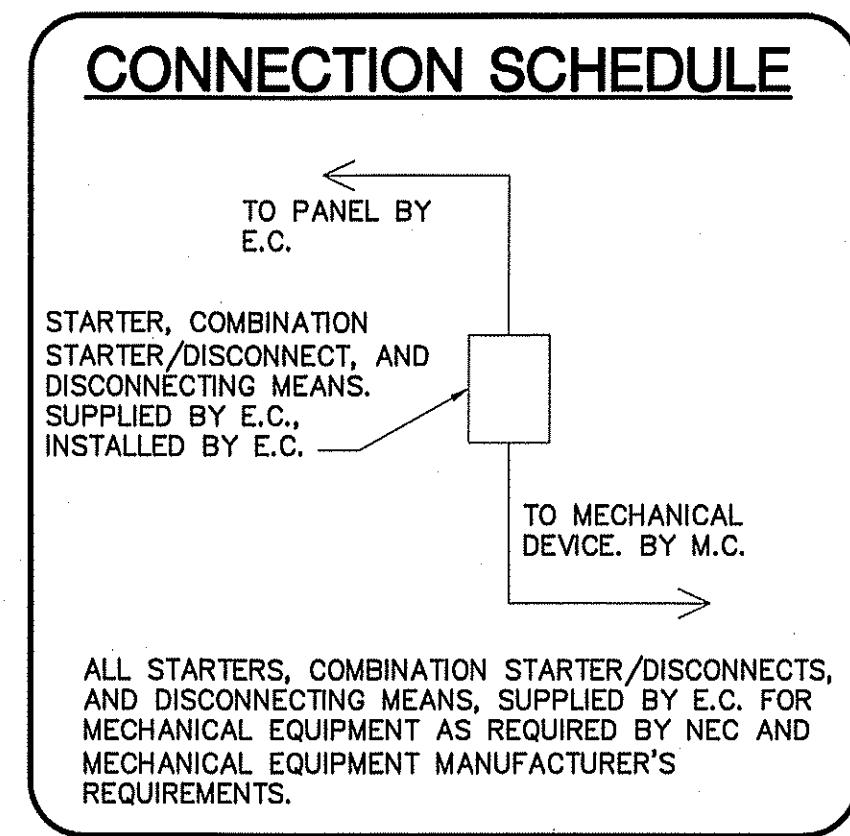
SHEET NO.  
E-1 OF 3



ELECTRICAL LEGEND	
MARK	DESCRIPTION
Ⓜ WP	"GFI" DUPLEX WITH WEATHERPROOF COVER
Ⓜ GFI	GROUND FAULT INTERRUPTING RECEPTACLE
Ⓜ IG	208V OR 240 V RECEPTACLE
◀	TELEPHONE/DATA OUTLET
Ⓜ	JUNCTION BOX
Ⓜ	FUSED DISCONNECT SWITCH
Ⓜ	"STEEL CITY" FLOOR BOX WITH CAT 5E CABLE FOR DATA
↔	SWITCHED BRANCH CIRCUIT
↔	UNSWITCHED BRANCH CIRCUIT
↔	120/208 VOLT CIRCUIT
Ⓜ	CEILING OR ATTIC MOUNTED DUPLEX RECEPTACLE
Ⓜ	LIGHT FIXTURE (WALL/CEIL.)
Ⓜ	FLUORESCENT FIXTURE
Ⓜ N/L	UNSWITCHED FIXTURE
Ⓜ	"EXIT" LIGHT FIXTURE, TYPE "EX"
Ⓜ	BATTERY OPERATED EMERG. LT. (2-HEAD, WALL MTD.)
Ⓜ	SINGLE-POLE SWITCH
Ⓜ <sub>3(4)</sub>	3-WAY SWITCH (4-WAY SWITCH)
Ⓜ	DUPLEX RECEPTACLE
Ⓜ	CEILING MOUNTED RECEPTACLE
Ⓜ	EMERGENCY LIGHT REMOTE WEATHERHEAD(S)
Ⓜ	WALL MOUNTED OCCUPANCY SENSOR WITH SWITCH
Ⓜ	CEILING MOUNTED OCCUPANCY SENSOR

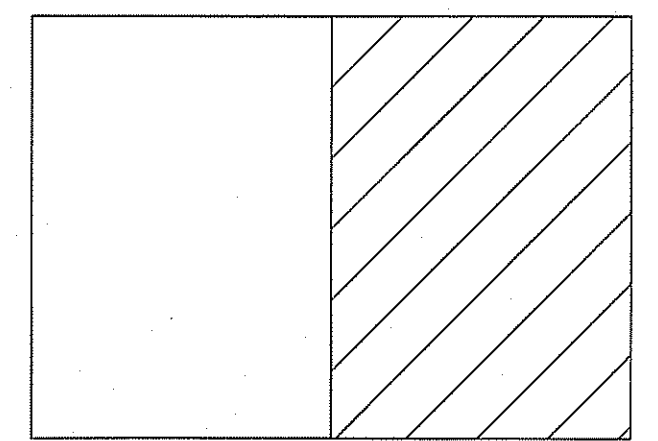
**NOTE:**  
E.C., OWNER, AND G.C. TO VERIFY ALL EQUIPMENT LOCATIONS, SPECIFICATIONS, & REQUIREMENTS BEFORE BEGINNING CONSTRUCTION.

**NOTE:**  
ALL WET AREA RECEPTACLES TO BE GFCI IN ACCORDANCE WITH CURRENT VERSION OF NEC.

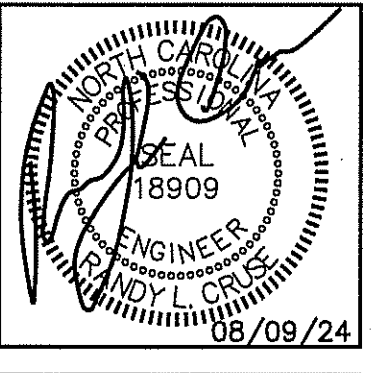


**ELECTRICAL POWER PLAN**  
SCALE: 3/16" = 1'-0"

**KEY NOTE:**  
① VERIFY LOCATION OF KITCHEN HOOD ELECTRICAL CIRCUITS BEFORE BEGINNING CONSTRUCTION.

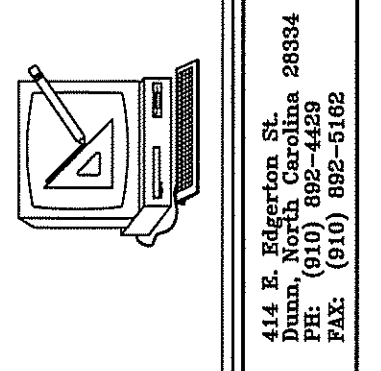


**KEY PLAN**



PLANS FOR:  
MAMA B'S  
SOUTHERN KITCHEN  
COATS, NORTH CAROLINA

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SHEET NO.  
**E-2 OF 3**

PANEL: A SCHEDULE: MANUFACTURER: SQ. D NO. OF SPACES 42  
 VOLTS: 120/208 AMPS: 400 TYPE: "NQDD" MOUNTING: SURFACE  
 ENCLOSURE: NEMA 1 Ø: 3 SHORT CIRCUIT RATING: 22K  
 MAINS M.L.O. TOP FEED: BOTTOM FEED: COPPER BUS: GROUND BAR KIT: NEUTRAL BAR KIT:

**NOTE:**  
 VERIFY AIC RATING WITH  
 UTILITY COMPANY BEFORE  
 ORDERING PANELS.

**ELECTRICAL SYSTEM AND EQUIPMENT  
 METHOD OF COMPLIANCE:**

ENERGY CODE: PRESCRIPTIVE  PERFORMANCE   
 ASHRAE 90.1: PRESCRIPTIVE  PERFORMANCE

REFER TO DRAWINGS FOR RISER DIAGRAM AND PANEL SCHEDULES

**LIGHTING SCHEDULE**

LAMP TYPE REQUIRED IN FIXTURE: SEE SCHEDULE

NUMBER OF LAMPS IN FIXTURE:

BALLASTS TYPE USED IN FIXTURE:

NUMBER OF BALLASTS IN FIXTURE:

TOTAL WATTAGE PER FIXTURE:

TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED:

TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED:

**ADDITIONAL PRESCRIPTIVE COMPLIANCE**

- 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
- 506.2.2 REDUCED LIGHTING POWER DENSITY
- 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
- 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
- 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
- 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEMS

**ELECTRICAL NOTES (GENERAL)**

1. THE ELECTRICAL INSTALLATION, EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL, AS A MINIMUM, BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), ALL APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL CODES, LAWS, AND ORDINANCES, AND RULINGS OF THE INSPECTION AUTHORITIES HAVING JURISDICTION. ALL FEES, PERMITS, ETC., ASSOCIATED WITH THE ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
2. THE DRAWINGS GENERALLY INDICATE THE WORK TO BE INSTALLED, BUT DO NOT SHOW ALL BENDS, BOXES, FITTINGS, AND SPECIALTIES WHICH MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SUCH ITEMS REQUIRED TO COMPLETE THE INSTALLATION ACCORDING TO INDUSTRY ACCEPTED PRACTICES SHALL BE INCLUDED IN THE BID.
3. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND LISTED AND LABELED BY UNDERWRITERS LABORATORIES, INC.
4. ALL PENETRATIONS OF FIRE WALLS SHALL BE SEALED WITH APPROVED SEALING MATERIALS TO MAINTAIN THE FIRE RATING OF THE WALLS.
5. THE CONTRACTOR SHALL VERIFY WIRE AND FUSE/CIRCUIT BREAKER SIZING FOR ALL MECHANICAL EQUIPMENT PRIOR TO PURCHASING MATERIALS AND INSTALLING BRANCH CIRCUITS.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID INTERFERENCES AND CONFLICTS. APPARENT INTERFERENCES OR CONFLICTS SHALL BE REPORTED TO THE PRIME CONTRACTOR AND RESOLVED PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
7. THE ELECTRICAL CONTRACTOR SHALL CONNECT BRANCH CIRCUITS TO THE MAIN LINE TERMINALS OF EQUIPMENT FURNISHED BY OTHER CONTRACTORS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY NECESSARY SWITCHES, DISCONNECTS, OR OVERCURRENT PROTECTION AHEAD OF SUCH EQUIPMENT.
8. RACEWAYS ARE SHOWN SCHEMATICALLY AND MAY BE REROUTED IN THE FIELD. THEY SHALL BE INSTALLED AT RIGHT ANGLES TO OR PARALLEL WITH BUILDING LINES. THEY SHALL BE RUN CONCEALED WITHIN WALLS OR BUILDING STRUCTURES WHEREVER POSSIBLE.
9. ALL RACEWAYS, EQUIPMENT, ETC., ABOVE A SUSPENDED CEILING SHALL BE MOUNTED A MINIMUM OF 18" ABOVE THE CEILING SO AS NOT TO BLOCK ANY TILE OR FIXTURE ACCESS.
10. THE MINIMUM ALLOWABLE SIZE FOR ANY CONDUIT, IMC, OR EMT SHALL BE 1/2" AND MAY BE USED FOR 2#12 WIRE SWITCHLEGS ONLY. A SWITCHLEG SHALL BE DEFINED AS THE RUN OF CONDUIT FROM THE SWITCH OUTLET BOX TO THE FIRST OUTLET BEING SWITCHED.
11. FULL WEIGHT GALVANIZED RIGID STEEL CONDUIT SHALL BE USED IN THE FOLLOWING AREAS:
  - A. ON THE EXTERIOR OF THE BUILDING OR ROOF,
  - B. VERTICAL DROPS WHERE THE CONDUIT CANNOT BE ANCHORED TO WALLS OR OTHER SUPPORT STRUCTURES,
  - C. WHERE SUBJECT TO MECHANICAL DAMAGE.
12. ALL WIRE AND CABLE SHALL BE COPPER AND HAVE 600 VOLT THHN-THWN INSULATION. ALUMINUM WIRING SHALL NOT BE PERMITTED.
13. THE MINIMUM WIRE SIZE SHALL BE #12 AWG EXCEPT FOR CONTROL WIRING, WHICH MAY BE #14 AWG. CONTROL WIRING SHALL USE STRANDED CONDUCTORS UNLESS OTHERWISE NOTED.
14. ALL METAL RACEWAY SYSTEMS SHALL BE MADE ELECTRICALLY CONTINUOUS. THE RACEWAY SYSTEM SHALL NOT BE THE SOLE GROUNDING METHOD. AN INSULATED COPPER GROUNDING CONDUCTOR SHALL BE INSTALLED FOR ALL FEEDERS AND BRANCH CIRCUITS. AT RECEPTACLES, A GREEN GROUND CONDUCTOR SHALL BE CONNECTED TO THE GROUND TERMINAL OF THE RECEPTACLE.
15. THE ELECTRICAL CONTRACTOR SHALL COORDINATE FUSE AND DISCONNECT SWITCH SIZES WITH THE MECHANICAL EQUIPMENT SUPPLIER PRIOR TO PURCHASE AND INSTALLATION OF BRANCH CIRCUIT EQUIPMENT. IF EQUIPMENT SIZING CHANGES FROM DESIGN SIZES, CIRCUITS SHALL BE RESIZED ACCORDINGLY.
16. LIGHT FIXTURES FOR INSTALLATION IN A SUSPENDED CEILING SHALL BE SECURELY FASTENED TO THE CEILING SUSPENSION SYSTEM IN A MANNER TO PREVENT FIXTURES FROM FALLING. IN ADDITION, 16 GAGE WIRE HANGERS SHALL BE FASTENED TO THE FOUR CORNERS OF THE FIXTURES.
17. CONNECTIONS TO FIXTURES INSTALLED IN SUSPENDED CEILINGS SHALL BE MADE WITH FLEXIBLE METAL CONDUIT TO ALLOW THE FIXTURE TO BE LIFTED OUT OF THE GRID AND MOVED TO AN ADJACENT GRID LOCATION.
18. BREAKERS SUPPLYING HVAC OR REFRIGERATION EQUIPMENT SHALL BE HACR TYPE.
19. 3/4" CONDUIT IS MINIMUM ALLOWABLE SIZE EXCEPT AS INDICATED IN #10. CONDUIT FILL NOT TO EXCEED 40% AS PERMITTED BY THE NATIONAL ELECTRIC CODE.
20. ALL CONDUCTORS TO BE INSTALLED IN CONDUIT (EXCEPT WHERE ROMEX IS INSTALLED). EMT FITTINGS TO BE COMPRESSION TYPE, INSULATED THROAT.
21. NOT USED
22. DATA, SECURITY, THEATRICAL, AND VIDEO SYSTEMS TO BE PROVIDED BY OWNER. ROUGH-IN OF OUTLETS AND CONDUIT WILL BE BY CONTRACTOR AS SHOWN ON DRAWINGS.
23. NOT USED
24. NO. 10 AWG CONDUCTORS SHALL BE USED FOR 20 AMP BRANCH CIRCUIT HOME RUNS EXCEEDING 50 FT. TO THE JUNCTION POINT. 20 AMP BRANCH CIRCUIT WIRING SHALL BE NO. 10 AWG THROUGHOUT IF THE CIRCUIT IS LONGER THAN 100 FEET TOTAL LENGTH.
25. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET. SPLICES WILL NOT BE MADE EXCEPT WITHIN ACCESSIBLE OUTLET OR JUNCTION BOXES, TROUGHS, OR GUTTERS.
26. MAKE CONDUCTOR LENGTHS FOR PARALLEL CIRCUITS EQUAL.
27. INSTALL TELEPHONE OUTLETS WITH 3/4" EMPTY CONDUIT AND PULL CORD. STUB OUT ABOVE CEILING. PHONE SYSTEM INSTALLED BY OWNER.
28. ALL CONDUIT WITHOUT CONDUCTORS SHALL HAVE NYLON PULLCORDS INSTALLED.
29. THE CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION, AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE ENGINEER.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES FOR PERMITS AND INSPECTIONS. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR ELECTRIC UTILITY CONNECTION FEES AND LINE EXTENSION FEES.
31. ELECTRICAL CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION WHICH DEVELOPS OBJECTIONABLE NOISES SHALL BE MADE FROM THE CONDUIT SYSTEM WITH SHORT LENGTHS OF FLEXIBLE "LIQUID-TITE" CONDUIT.
32. ALL WIRE TERMINATIONS AND EQUIPMENT TO BE RATED FOR 75° C MINIMUM.
33. ELECTRICAL CONTRACTOR TO MAINTAIN 2' OF SEPARATION ON RECEPTACLES ON OPPOSITE SIDES OF ANY FIRE RATED WALL PER 2017 N.E.C. 300.21.
34. WIRING TO DISCONNECT SWITCH AND DISCONNECT SWITCH SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. WIRING FROM THE DISCONNECT TO THE EQUIPMENT SHALL BE BY THE MECHANICAL CONTRACTOR.

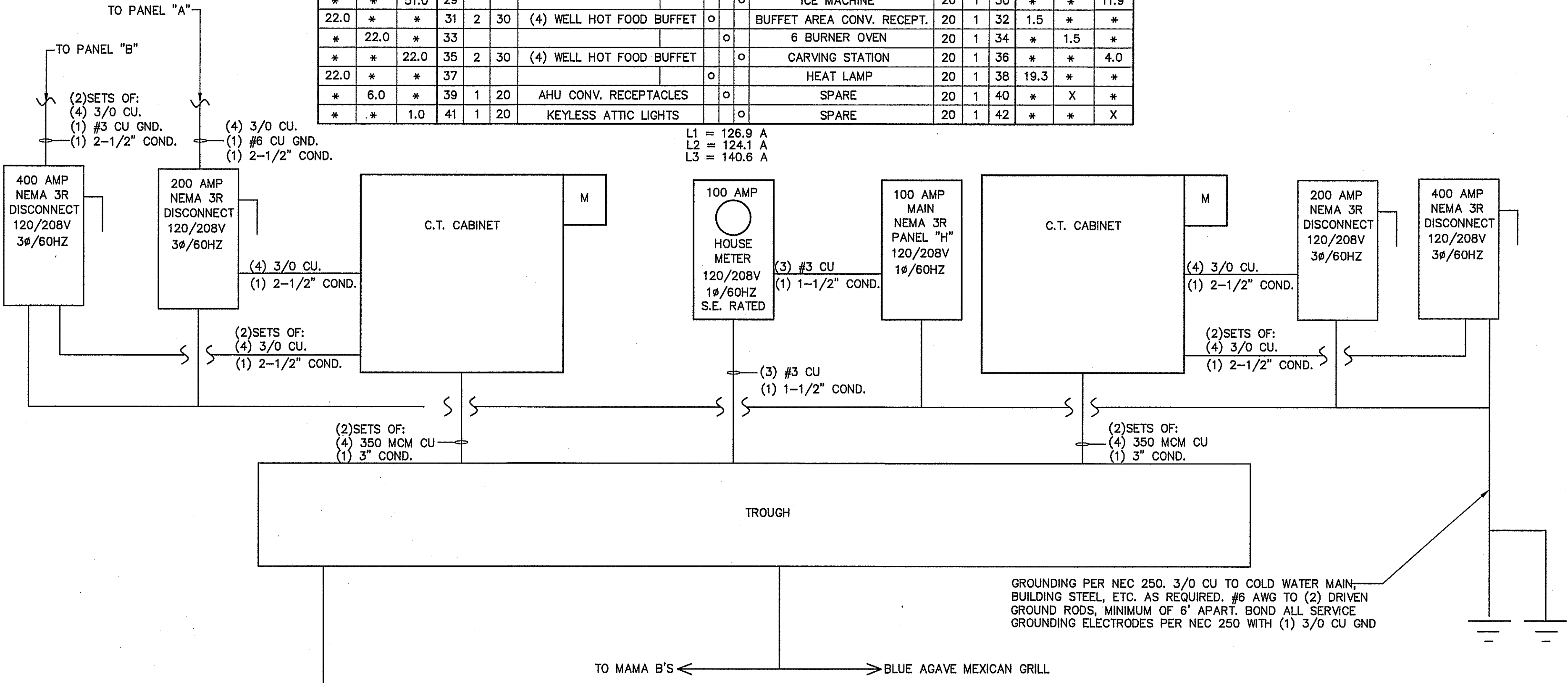
**ELECTRICAL LOAD CALCULATIONS**

3500 SQUARE FEET	VA
<b>NONCONTINUOUS LOADS:</b>	
9 RECEPTACLES @ 180 VA EA.	1620
1ST 10000	1620
REMAINDER @ 50%	0
TOTAL	1620
<b>CONTINUOUS LOADS:</b>	
GENERAL LIGHTING LOAD VA/SQ. FT.	
3500 SQ. FT. 1.5	5250
5250 X 1.25	6563
AIR HANDLING UNIT	28787
HEAT PUMP UNITS	20405
EQUIPMENT:	60253
25% OF LARGEST MOTOR	822
GRAND TOTAL	118,450
329 AMPS @ 120/208V, 3Ø, 60HZ	

PANEL: B SCHEDULE: MANUFACTURER: SQ. D NO. OF SPACES 42  
 VOLTS: 120/208 AMPS: 200 TYPE: "NQDD" MOUNTING: SURFACE  
 ENCLOSURE: NEMA 1 Ø: 3 SHORT CIRCUIT RATING: 22K  
 MAINS M.L.O. TOP FEED: BOTTOM FEED: COPPER BUS: GROUND BAR KIT: NEUTRAL BAR KIT:

L1	L2	L3	CIRCUIT	POLES	TRIP	ASSIGNMENT	PHASE	ASSIGNMENT	TRIP	POLES	CIRCUIT	L1	L2	L3
6.0	*	*	1	1	20	OFFICE RECEPTACLES	o	DINING AREA LIGHTING	20	1	2	6.3	*	*
*	6.0	*	3	1	20	CORRIDOR/DINING AREA RECS.	o	BUFFET/RESTROOM/OFFICE LTS	20	1	4	*	5.7	*
*	*	3.0	5	1	20	FRONT/RIGHT WALL RECEPT.	o	KITCHEN LIGHTING	20	1	6	*	*	3.6
5.0	*	*	7	1	20	BEVERAGE DISPENSER	o	COFFEE BREWER	20	1	8	13.9	*	*
*	4.5	*	9	1	20	DINING ROOM RECEPTACLES	o	SPARE	20	1	10	*	X	*
*	*	3.4	11	1	20	AIR CURTAIN	o	TEA BREWER	20	1	12	*	*	14.4
1.8	*	*	13	1	20	UNDER COUNTER FREEZER	o	BUILDING SIGN	20	1	14	5.0	*	*
*	11.9	*	15	1	20	FOOD WARMER	o	SPARE	20	1	16	*	X	*
*	*	9.8	17	1	20	SANDWICH UNIT	o	SPARE	20	1	18	*	*	X
8.3	*	*	19	1	20	2 DOOR FREEZER	o	SPARE	20	1	20	X	*	*
*	1.5	*	21	1	20	WATER HEATER	o	SPARE	20	1	22	*	X	*
*	*	1.5	23	1	20	HOT WATER RECIRC. PUMP	o	FRESH-O-MATIC	20	1	24	*	*	15.0
8.3	*	*	25	1	20	2 DOOR FREEZER	o	HEAT LAMP	20	1	26	7.5	*	*
*	51.0	*	27	2	70	(6) WELL HOT FOOD BUFFET	o	STEAMER	20	1	28	*	14.0	*
*	*	51.0	29				o	ICE MACHINE	20	1	30	*	*	11.9
22.0	*	*	31	2	30	(4) WELL HOT FOOD BUFFET	o	BUFFET AREA CONV. RECEPT.	20	1	32	1.5	*	*
*	22.0	*	33				o	6 BURNER OVEN	20	1	34	*	1.5	*
*	*	22.0	35	2	30	(4) WELL HOT FOOD BUFFET	o	CARVING STATION	20	1	36	*	*	4.0
22.0	*	*	37				o	HEAT LAMP	20	1	38	19.3	*	*
*	6.0	*	39	1	20	AHU CONV. RECEPTACLES	o	SPARE	20	1	40	*	X	*
*	*	1.0	41	1	20	KEYLESS ATTIC LIGHTS	o	SPARE	20	1	42	*	*	X

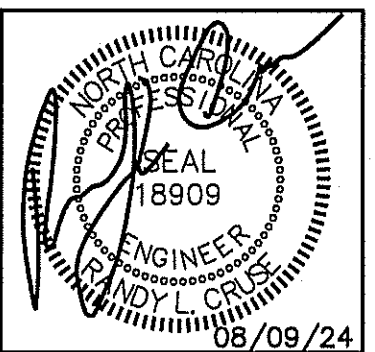
L1 = 126.9 A  
 L2 = 124.1 A  
 L3 = 140.6 A



**ELECTRICAL RISER DIAGRAM**  
 NOT TO SCALE

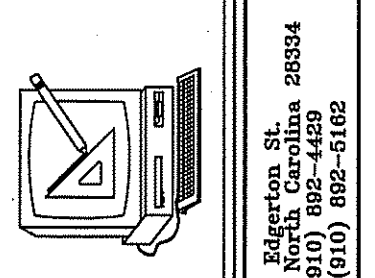
FEEDER SCHEDULE			
UNIT	FEEDERS	FUSED DISCONNECT	CONDUIT
AHU-1,2,3,4	(2)#6CU,(1)#8CU GND	60	3/4"
HP-1,3	(2)#10CU,(1)#12CU GND	60	3/4"
HP-2,4	(2)#8CU,(1)#10CU GND	60	3/4"

**NOTE:**  
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SHEET NO.  
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