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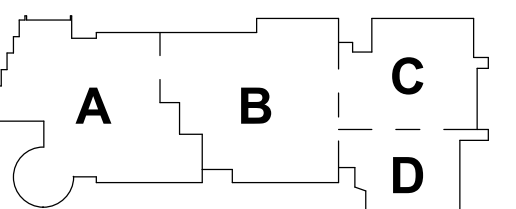
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100 Hemlock Road,
Wakefield, MA 01880

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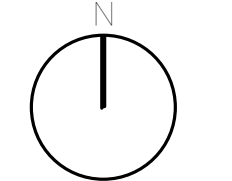
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May 12th, 2023

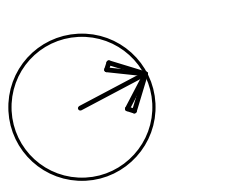


KEY PLAN

PROJECT NORTH



MAGNETIC NORTH



**FOODSERVICE
EQUIPMENT OVERALL
PLAN - AREA A**

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

Job No.: 20202

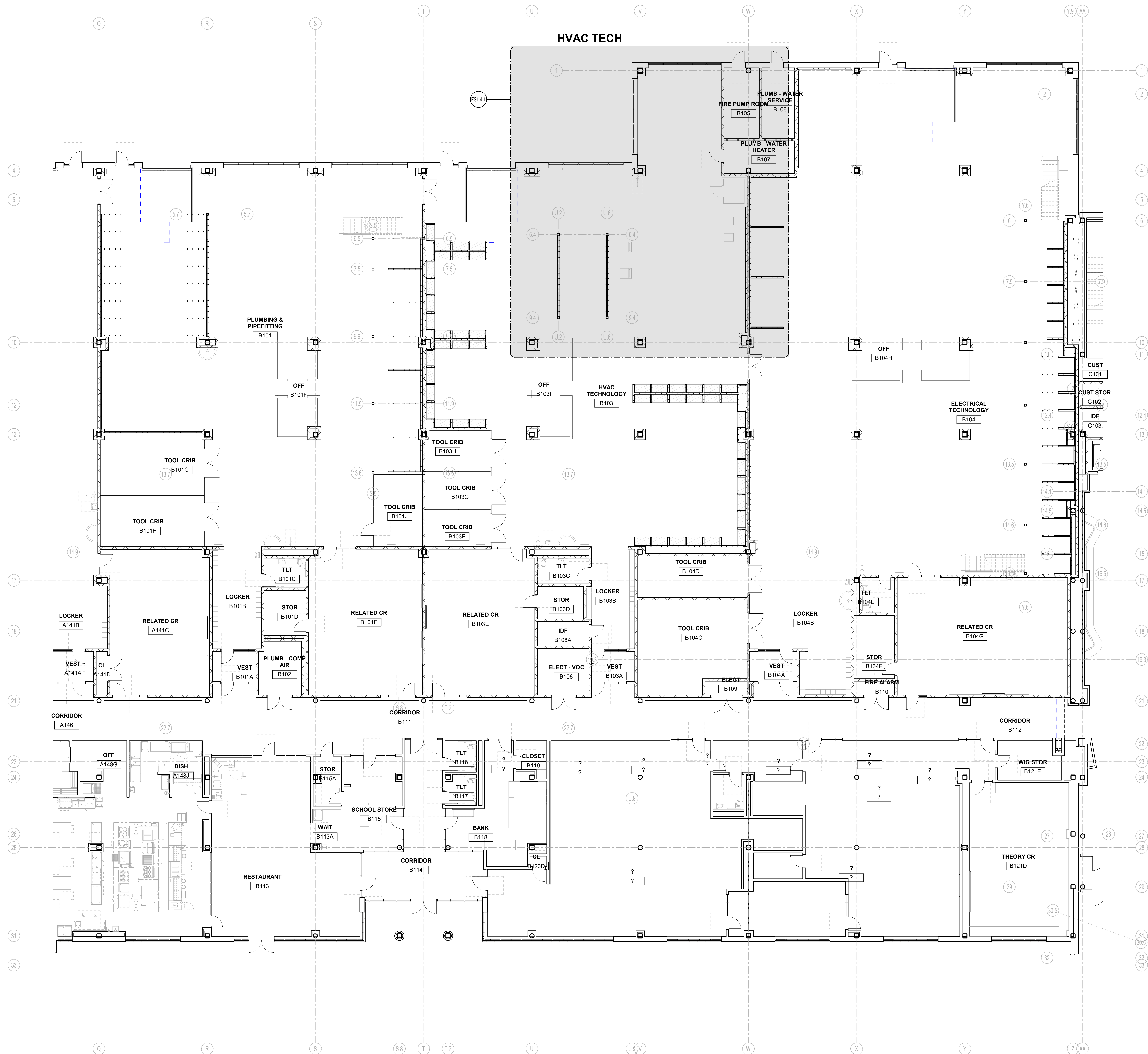
Drawn By: RM

Date: May 12th, 2023

FS1-1-1A

FOODSERVICE EQUIPMENT OVERALL PLAN - AREA A
1/8" = 1'-0"

**Crabtree
McGrath**
ASSOCIATES, INC.
161 West Main Street
Georgetown, MA 01833
978.352.8500
crabtree-mcgrath.com



FOODSERVICE EQUIPMENT OVERALL PLAN - AREA B
1/8" = 1'-0"



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May 12th, 2023

KEY PLAN

PROJECT NORTH

MAGNETIC NORTH

FOODSERVICE
EQUIPMENT OVERALL
PLAN - AREA B

Scale: 1/8" = 1'-0"
Job No.: 20202
Drawn By: RM
Date: May 12th, 2023

FS1-1-1B

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MAIN KITCHEN - SCHEDULE OF FOODSERVICE EQUIPMENT & CONNECTIONS					
Item	Qty	Description	Plumbing	Electrical	Mechanical / Equipment Remarks
A01	13	Storage Shelving, Five-Tier			
A02	7	Dunnage Rack			
A03	23	Mobile Shelving Unit, Four-Tier			
A04	6	Dunnage Rack, Mobile			
A05	8	Pan Rack, Mobile			
A06	5	Utility Cart			
A07	1	Walk-in Cooler		1.1 KW - 120/1 (lights, temp. monitor/alarm, etc); Low voltage wiring from temperature monitor to BMS	Requires floor recess by GC
A08	1	Walk-in Freezer		1.3 KW - 120/1 (lights, temp. monitor/alarm, etc); Low voltage wiring from temperature monitor to BMS; 20 A circuit - 120/1 DR (drain line heater)	Requires floor recess by GC
A09a	1	Cooler Condensing Unit		11.9 A - 1.5 HP - 20/3	Located on Second Floor Roof per Detail 1/FS1-2-1
A09b	1	Cooler Evaporator Coil	1" IW (by KEC) to FD	1.8 A - 120/1; Low voltage wiring from evaporator coil controller to BMS	Remote refrigeration from Item A12a
A09c	1	Freezer Condensing Unit		11.9 A - 2.5 HP - 20/3	Located on Second Floor Roof per Detail 1/FS1-2-1
A09d	1	Freezer Evaporator Coil	1" IW (by KEC) to FD	9.5 A - 20/1; Low voltage wiring from evaporator coil controller to BMS	Remote refrigeration from Item A12c
A09e	1	Freezer Condensing Unit		11.9 A - 2.5 HP - 20/3	Located on Second Floor Roof per Detail 1/FS1-2-1
A09f	1	Freezer Evaporator Coil	1" IW (by KEC) to FD	9.5 A - 20/1; Low voltage wiring from evaporator coil controller to BMS	Remote refrigeration from Item A12e
A10	1	-Spare Number-			
A11	1	-Spare Number-			
A12	1	Three-Compartment Sink	(2) 3/4" 120" FH&CW; (3) 2" W manifold thru GI by PC		
A13	1	Wall Shelf			
A14	1	Disposer Control Panel		3.3 A - 2 HP - 20/3	Requires wall blocking by GC in non-masonry walls Panel includes integral line disconnect SW
A15	1	Disposer	(2) 1/2" CW; 2" W	Power from Item A13	
A16	1	Hose Reel Assembly	1/2" H&CW		Requires wall blocking by GC in non-masonry walls
A17	1	Wet/Dry Vacuum, Door-Type, Ventless	3/4" CW (55 F min) (from Item A17a); 1/2" CW (drain tempering); 5/8" IW to FS	24 A - 48/3	Unit provided with drain water tempering system; Latent Heat Output: 6,000 BTU/hr; Sensible Heat Output: 5,000 BTU/hr
A17a	1	Water Filter Assembly	3/4" CW (55 F min)		Requires wall blocking by GC in non-masonry walls
A18	1	Clean Ware Table			
A19	3	Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
A20	3	Waste Bin (by Owner)			
A21	1	-Spare Number-			
A22	1	-Spare Number-			
A23	5	Mobile Work Table			
A24	5	Waste Barrel (by Owner)			
A25	1	Work Table		20 A circuit - 120/1 mounted DR by KEC; 20 A circuit - 120/1 wall mounted convenience DR	
A26	1	Cook's Work Table with Sink & Overshelf	1/2" H&CW (stub-up); 2" IW to FS	(3) 20 A circuit - 120/1 mounted DR by KEC; 20 A circuit - 120/1 wall mounted convenience DR	
A27	1	Ventilator Demand Control System		15 A circuit - 120/1 (See Note E-A27/FS2-2-1)	Control for Items A37 & A38; System processor with EXH VFD mounted in hood cabinet
A27a	1	Ventilator Control Interface Screen		Cable from Item A27	Cable supplied with system
A27b	1	Room Temperature Sensor			
A28	1	Fire Suppression System		120/1, J-box for connection to building alarm system & equipment shutdown	Protection for Items A37 & A38; Mounted in hood cabinet
A29	1	Mobile Oven Rack			
A30	1	Combination Oven/Steamer, Roll-In	3/4" G @ 160 MBTU (from Item A39); 3/4" filtered CW (from Item A39); 2" IW to FS	15 A - 120/1 - C&P (from Item A39)	
A31	1	Double Convection Oven	3/4" G @ 100 MBTU (from Item A39)	(2) 8 A - 120/1 - C&P (from Item A39)	
A32	1	Conveyor Oven on Stand	3/4" G @ 40 MBTU (from Item A39)	7 A - 120/1 - C&P (from Item A39)	
A33	1	Ten-Pan Steamer	3/4" G @ 84 MBTU (from Item A39); 3/8" filtered CW (from Item A39); 1-1/2" IW to FS	2 A - 120/1 (from Item A39)	
A34	1	Forty-Gallon Tilting Braising Pan	1/2" G @ 144 MBTU (from Item A39); 1/2" H&CW (from Item A39)	5 A - 120/1 (from Item A39)	
A35	1	Six-Burner Range with Oven	3/4" G @ 215 MBTU (from Item A39)	0.1 A - 120/1 - C&P (from Item A39)	
A36	1	Forty-Gallon Tilting Kettle	1/2" G @ 100 MBTU (from Item A39); 1/2" H&CW (from Item A39)	5 A - 120/1 (from Item A39)	
A37	1	Exhaust Ventilator		Power to lights from Item A27	EXH: 2,800 total CFM thru (2) 12" diameter collars @ -0.620" SP; Coordinate support from structure above for hood hangers by KEC
A38	1	Exhaust Ventilator		Power to lights from Item A27	EXH: 3,300 total CFM thru (2) 14" diameter collars @ -0.651" SP; Coordinate support from structure above for hood hangers by KEC
A39	1	Utility Distribution System (UDS)	2" G @ 843 MBTU (1,700 MBTU system capacity); 3/4" HW; 3/4" CW; 3/4" filtered CW (from Item A49)	50 A circuit - 120/20/3	All electrical connectors and flexible water connectors to associated equipment provided with system by KEC. (Field connections by Related Trades)
A40	2	Floor Pan & Grate	3" W conn 7" BFF		Requires floor depression by GC
A41	1	-Spare Number-			
A42	1	-Spare Number-			
A43	2	Drop Cord with Inline GFCI		20 A circuit - 120/1	Provided by KEC, mounted and wired by EC; Includes inline GFCI
A44	2	Mobile Equipment Stand			
A45	1	Automatic Slicer		5.6 A - 120/1 - C&P (from Item A43)	
A46	1	Twenty-Quart Mixer		8 A - 120/1 - C&P (from Item A43)	
A47	1	Cook's Work Table with Sink & Overshelf	1/2" H&CW (stub-up); 2" IW to FS	(2) 20 A circuit - 120/1 wall mounted convenience DR	
A48	1	Work Table		20 A circuit - 120/1 mounted DR by KEC; (2) 20 A circuit - 120/1 wall mounted convenience DR	
A49	1	Water Filter Assembly	3/4" CW		PC to branch filtered water output piping to Item A39
A50	1	-Spare Number-			

MAIN KITCHEN - SCHEDULE OF FOODSERVICE EQUIPMENT & CONNECTIONS					
Item	Qty	Description	Plumbing	Electrical	Mechanical / Equipment Remarks
A51	1	-Spare Number-			
A52	1	Food Processor		12 A - 120/1 - C&P	
A53	1	Prep Table with Sinks	1/2" H&CW; (2) 2" IW to FS	20 A circuit - 120/1 wall mounted convenience DR	Requires wall blocking by GC in non-masonry walls
A54	1	Wall Shelf			
A55	1	-Spare Number-			
A56	1	-Spare Number-			
A57	1	-Spare Number-			
A58	1	-Spare Number-			
A59	5	Staff Locker, Two-Tier (by GC)			Requires wall blocking by GC in non-masonry walls
A60	2	Staff Locker, Two-Tier with Coat Rail (by GC)			Requires wall blocking by GC in non-masonry walls
B01	2	Hot Holding Cabinet, Pass-Thru		6.3 A - 20/1 - C&P (NEMA 6-20P)	
B02	1	Mobile Work Table		(2) 20 A circuit - 120/1 wall mounted convenience DR	
B03	1	Refrigerator, Pass-Thru		6.5 A - 120/1 - C&P	
B04	1	Mobile Work Table		20 A circuit - 120/1 wall mounted convenience DR	
B05	1	Hot Holding Cabinet, Pass-Thru		13 A - 20/1 - C&P (NEMA 6-20P)	
B06	1	Hot Holding Cabinet, Pass-Thru		6.3 A - 20/1 - C&P (NEMA 6-20P)	
B07	2	Refrigerator, Pass-Thru		6.5 A - 120/1 - C&P	
B08	1	Work Table		(3) 20 A circuit - 120/1 wall mounted convenience DR	
B09	1	-Spare Number-			
B10	1	Panini Grill, Aluminum Plate		6.5 A - 20/1 - C&P (NEMA 6-15P)	
B11	1	Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
B12	1	Waste Bin (by Owner)			
B13	1	Entree Serving Counter		(3) 20 A circuit - 120/1 mounted DR by KEC (stub-up)	
B13a	1	Two-Tier Glass Food Display Case			
B13b	1	Full-Service Glass Food Protector Case			
B14	1	Hot Food Wall Assembly, Drop-In	1/2" IW to FS	17.3 A - 3.6 KW - 20/1 (stub-up)	
B15	1	Prep Top Refrigerator		3 A - 120/1 - C&P (from mounted DR at Item B19)	
B16	4	Waste Bin			
B17	3	Fill Faucet	1/2" HW (stub-up)		
B18	1	Hot Food Wall Assembly, Drop-In	1/2" IW manifold to FS	6.7 A - 20/1 - C&P (from mounted NEMA 6-15R at Item B19)	
B19	1	Deel Serving Counter		20 A circuit - 120/1 mounted DR by KEC (stub-up); 15 A circuit - 20/1 mounted NEMA 6-15R by KEC (stub-up)	
B19a	1	Full-Service Glass Food Protector Case			
B19b	1	Full-Service Glass Food Protector Case			
B20	1	Air Screen Grab & Go Display Refrigerator		16 A - 120/1 - C&P	
B21	1	Cold Pan, Drop-In	1" IW to FS	3.8 A - 120/1 - C&P (from mounted DR at Item B13)	
B22	1	-Spare Number-			
B23	2	Two-Tier Heated Shelf		15.1 A - 120/1 - C&P (from mounted DR at Item B25)	
B24	1	Heated Surface, Drop-In		7.1 A - 120/1 - C&P (from mounted DR at Item B25)	
B25	1	Hot Grab & Go Serving Counter		(3) 20 A circuit - 120/1 mounted DR by KEC (stub-up)	
B25a	1	Convertible Glass Food Protector w/ Warmer		5.3 A - 20/1 (stub-up)	
B26	1	Air Screen Grab & Go Display Refrigerator		16 A - 120/1 - C&P	
B27	1	Entree Serving Counter		(3) 20 A circuit - 120/1 mounted DR by KEC (stub-up)	
B27a	1	Two-Tier Glass Food Display Case			
B27b	1	Full-Service Glass Food Protector Case			
B28	1	Cold Pan, Drop-In	1" IW to FS	3.8 A - 120/1 - C&P (from mounted DR at Item B27)	
B29	1	Hot Food Wall Assembly, Drop-In	1/2" IW to FS	17.3 A - 3.6 KW - 20/1 (stub-up)	
B30	1	EXISTING Coffee Brewer	1/4" filtered CW (from Item A55)	13.5 A - 120/1 - C&P	Verify all utility requirements for existing equipment
B31	1	Water Filter Assembly	3/8" CW		
B32	1	-Spare Number-			
B33	2	Milk Cooler		3.3 A - 120/1 - C&P	
B34	2	Traffic Barrier Bollard (set of two)			
B35	2	Salad Bar Counter		20 A circuit - 120/1 mounted DR by KEC (stub-up)	
B35a	2	Double-Sided Self-Serve Glass Food Protector w/ Lights		5 A - 120/1 (stub-up)	Includes LED power supply and switch to be mounted below counter
B36	2	Cold Pan, Drop-In	1" IW to FS	5.9 A - 120/1 - C&P (from mounted DR at Item B35)	
B37	1	-Spare Number-			
B38	1	-Spare Number-			
B39	2	Mobile Condiment Counter			
B40	2	Mobile Cashier Stand			
B41	2	Cashier Terminal (by Owner)		120/1 - C&P (floor receptacle); Data Cable (floor receptacle)	
B42	1	-Spare Number-			
B43	1	-Spare Number-			
B44	1	Mop Sink & Service Faucet (by PC)	1/2" H&CW; Drain in floor		Install on sub-floor prior to finished floor
B45	1	Mop Rack/Shelf			Requires wall blocking by GC in non-masonry walls
B46	1	Detergent Storage Cabinet			Requires wall blocking by GC in non-masonry walls
B47	1	Mobile Shelving Unit, Four-Tier			
B48	1	Clean Ware Table			
B49	1	EXISTING warewasher, Conveyor Type	3/4" 180 FWH (from Item B49b); 1/2" CW; 1-1/4" IW to FS	98 A - 20/3 (machine & tank heat)	EXH: 200 & 400 CFM thru (2) 4" x 16" vents @ 0.25" SP; Unit includes drain water tempering system; Verify all utility requirements for existing equipment
B49a	1	Water Filter Assembly	3/4" HW		Requires wall blocking by GC in non-masonry walls
B49b	1	EXISTING Booster Heater	3/4" HW from Item B49a	66.7 A - 20/3	Verify all utility requirements for existing equipment
B50	2	Stainless Steel Exhaust Duct			
B51	1	Hose Reel Assembly	1/2" H&CW		Requires wall blocking by GC in non-masonry walls
B52	1	Solled Tray Table with Scrap Sink & Integral Pass-Thru Window Frame	2" W		
B53	1	Roll-Down Shutter			Requires wall blocking by GC in non-masonry walls
B54	1	Waste Barrel (by Owner)			
B55	1	Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
B56	1	Waste Bin (by Owner)			

SCHEDULE NOTES

- UTILITIES SHOWN IN THESE SCHEDULES ARE SPECIFIC TO THE PRIME MANUFACTURER LISTED IN THE WRITTEN SPECIFICATION SECTION 1.4000. IF EQUIPMENT FROM AN ALTERNATE MANUFACTURER IS PROVIDED, IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE AND SUBMIT TO THE PROJECT DESIGN TEAM FOR REVIEW.
- UTILITIES LISTED ON THIS SCHEDULE FOR OWNER FURNISHED OR VENDOR SUPPLIED EQUIPMENT ARE ESTIMATES ASSUMED FOR ENGINEERING PURPOSES ONLY. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE EQUIPMENT CUT SHEETS OF THIS EQUIPMENT TO CRABTREE-MCGRATH ASSOCIATES PRIOR TO CONSTRUCTION.
- INSTALLING SUB-CONTRACTORS MUST NOTIFY CRABTREE-MCGRATH ASSOCIATES IF A UTILITY REQUIREMENT LISTED ON THIS EQUIPMENT SCHEDULE IS NOT AVAILABLE.
- REFER TO THE ABBREVIATIONS NOTES PROVIDED ON THIS SHEET FOR CLARIFICATION OF ABBREVIATIONS USED WITHIN THIS EQUIPMENT SCHEDULE.

Abbreviations used:

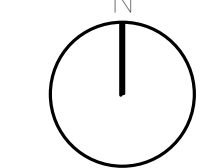
A	Amperes	EXH	Exhaust	IW	Indirect waste
AFF	Above finished floor	FD	Floor drain	KEC	Kitchen Equip. Contractor
BFF	Below finished floor	FFD	Furred floor drain	KW	Kilowatt
BTC	Branch to connection	FHW	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	IHW	Hot water	SS	Seam supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Waste (direct connection)



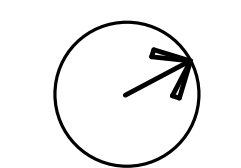
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May 12th, 2023

PROJECT NORTH



MAGNETIC NORTH



MAIN KITCHEN
FOODSERVICE
EQUIPMENT
SCHEDULE

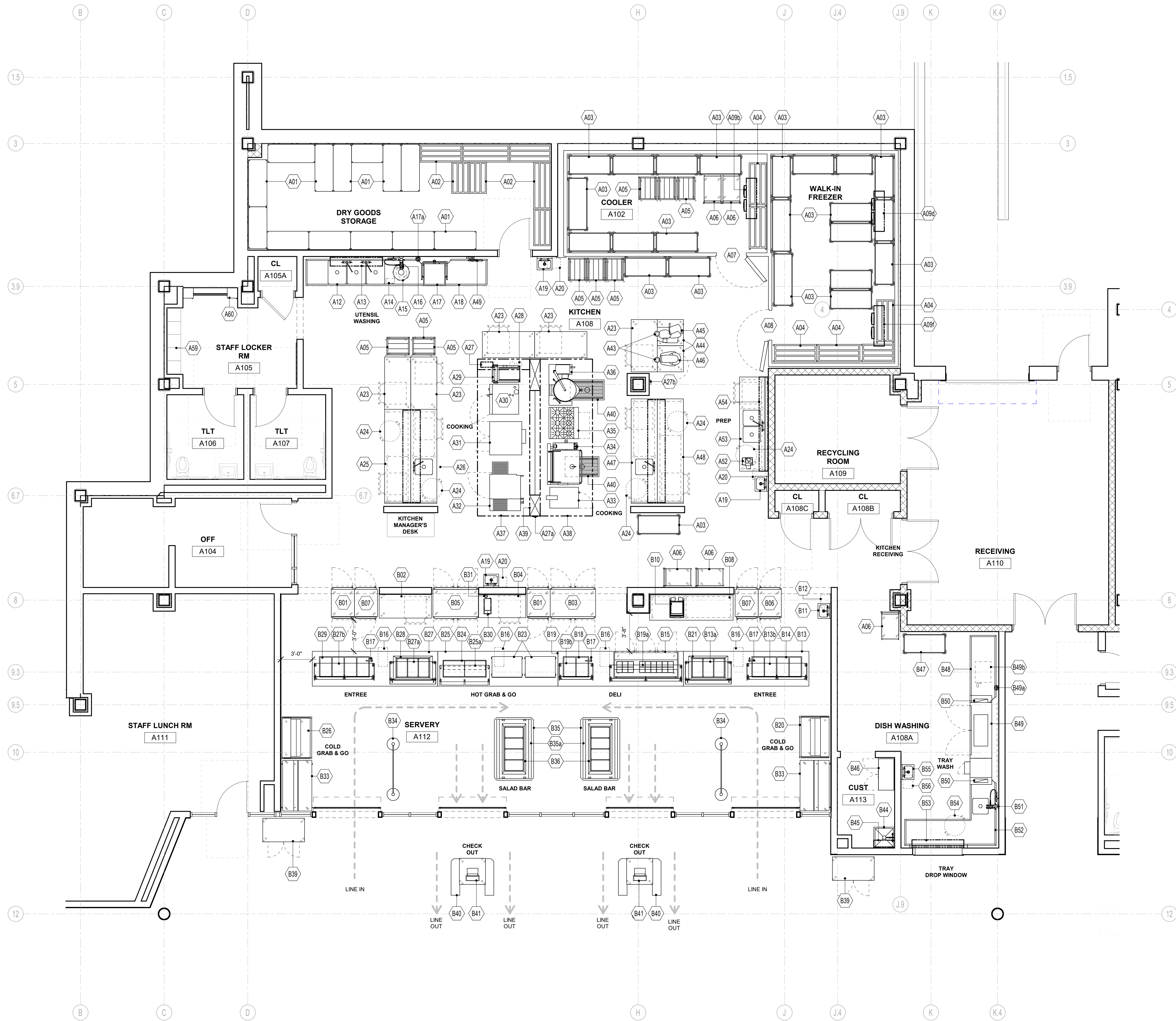
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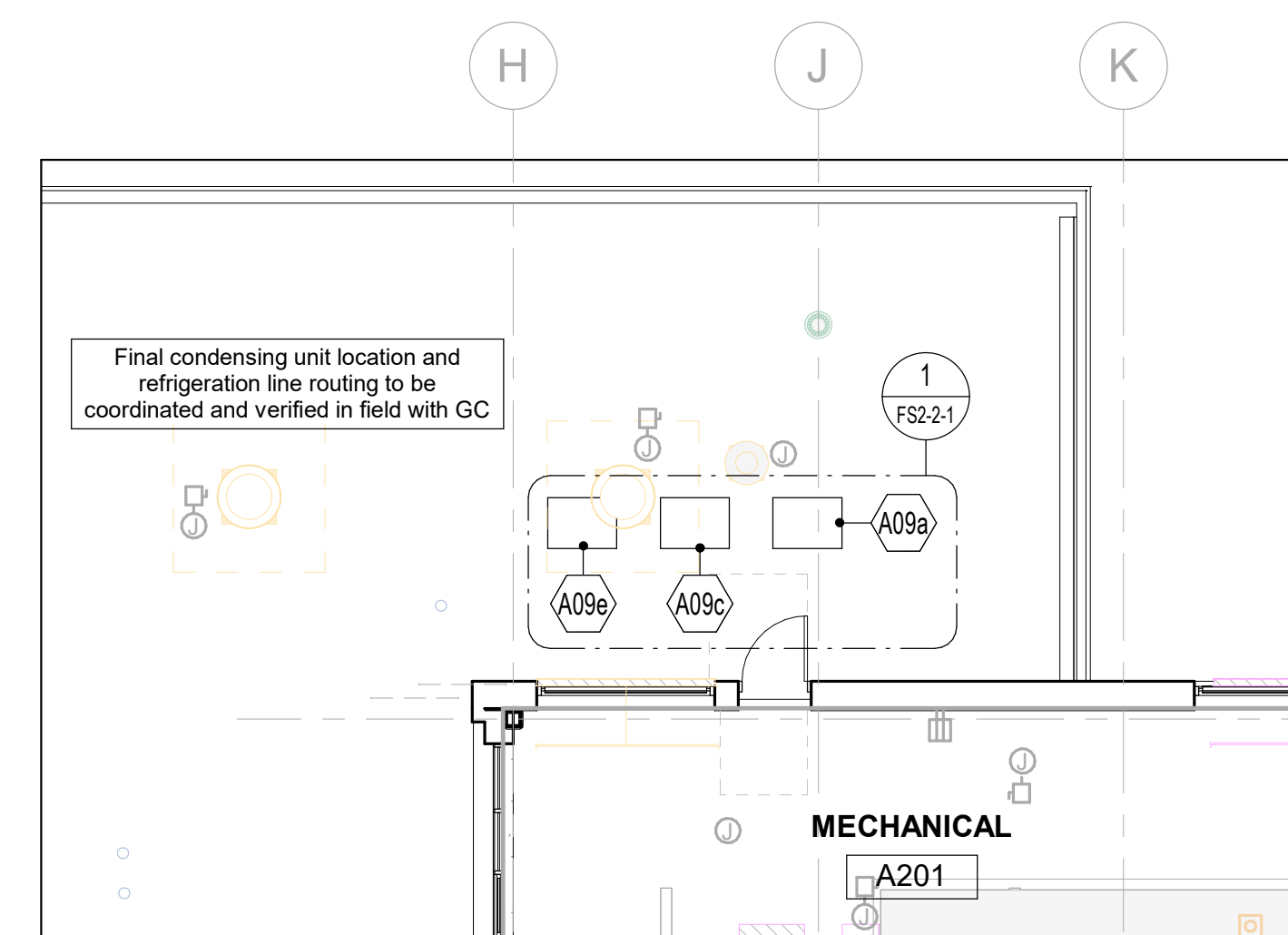
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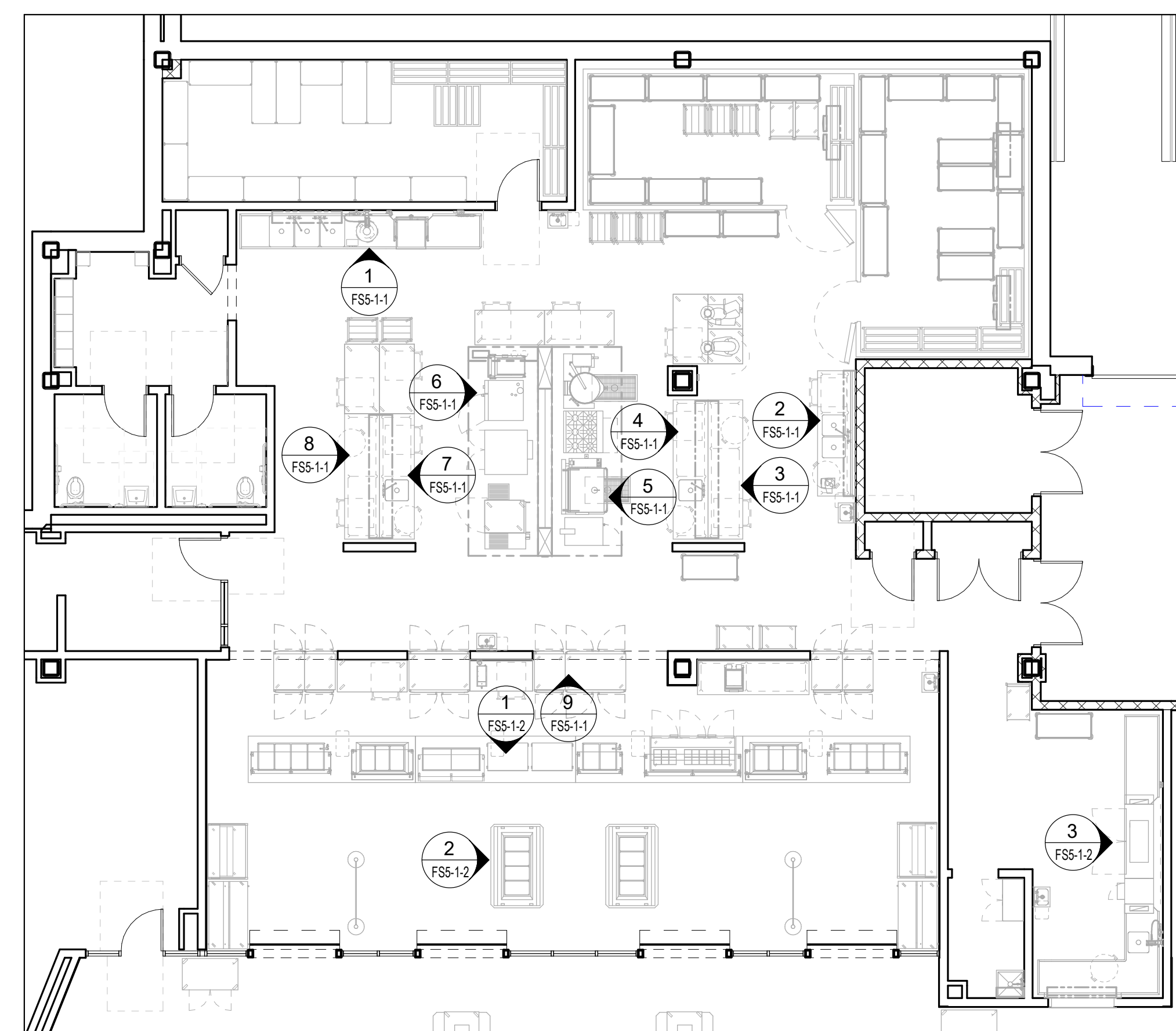
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MAIN KITCHEN - FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"



1 Detail - Second Floor Roof Remote Condensing Unit Plan
1/8" = 1'-0"



Main Kitchen - Elevation Key Plan
1/8" = 1'-0"

- PLAN NOTES**
- IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO FIELD VERIFY THE DELIVERY PATH OF ALL EQUIPMENT WITHIN THEIR SCOPE WITH BUILDING CONDITIONS PRIOR TO ORDERING TO CONFIRM ALL EQUIPMENT FITS WITHIN THE DESIGNATED SPACE AS LOCATED ON PLANS.
 - KITCHEN EQUIPMENT CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AS NECESSARY FOR OPENINGS IN BUILDING, WALL LEAVE OUTS, DOOR WIDTHS AND HEADER HEIGHTS REQUIRED FOR DELIVERY AND INSTALLATION MEANS.
 - FINISHES TO ALL WALLS, FLOORS AND CEILINGS ARE TO BE PROVIDED BY THE GENERAL CONTRACTOR AS SPECIFIED BY THE PROJECT ARCHITECT TO MEET THE REQUIREMENTS OF THE LOCAL HEALTH DEPARTMENT.
 - REVISIONS TO THESE PLANS DUE TO FIELD CONDITIONS MUST BE SUBMITTED TO THE PROJECT DESIGN TEAM FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - FLOORING MATERIAL SPECIFIED BY THE ARCHITECT MUST BE PROVIDED WITH A COVERED BASE AT ALL WALLS TO INCLUDE THE INTERIOR AND EXTERIOR OF WALK-IN REFRIGERATED ROOMS.
 - ALL FOODSERVICE EQUIPMENT AND CUSTOM FABRICATED ITEMS MUST MEET THE STANDARDS OF THE NATIONAL SANITATION FOUNDATION AND SHALL BE LABELED ACCORDINGLY.

Abbreviations used:

A	Ampere	EXH	Exhaust	IW	Indirect waste
AFF	Above finished floor	FD	Floor drain	KEC	Kitchen Equip. Contractor
BFF	Below finished floor	FDD	Funnel floor drain	KW	Kilowatt
BTC	Branch to connection	FHW	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	HW	Hot water	SS	Sicum supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Waste (direct connection)

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CULINARY KITCHEN - SCHEDULE OF FOODSERVICE EQUIPMENT & CONNECTIONS					
Item	Qty	Description	Plumbing	Electrical	Mechanical / Equipment Remarks
C01	1	Mobile Insulated Ice Cart			
C02	1	-Spare Number-			
C03	1	Ice Maker with Bin	3/8" filtered CW (from Item C26); 1/2" & 3/4" IW to FS	11.5 A - 120/1	
C04	1	Floor Pan & Grate		1.1 KW - 120/1 (lights, temp, monitoring/alarm, etc) Low voltage wiring from temperature monitor to BMS	Requires floor depression by GC
C05	1	Walk-in Cooler	3" W conn 7" BFF	1.3 KW - 120/1 (lights, temp, monitoring/alarm, etc) Low voltage wiring from temperature monitor to BMS; 20 A circuit - 120/1 DR (drain line heater)	Requires floor recess by GC
C06	1	Walk-in Freezer		9.5 A - 110 HP - 208/3	Requires floor recess by GC
C07a	1	Cooler Condensing Unit			Located on Main Roof per Detail 1/FS1-3-1
C07b	1	Cooler Evaporator Coil	1" IW (by KEC) to FD	1.8 A - 120/1; Low voltage wiring from evaporator coil controller to BMS	Remote refrigeration from Item C07a
C07c	1	Freezer Condensing Unit		11.9 A - 2.5 HP - 208/3	Located on Main Roof per Detail 1/FS1-3-1
C07d	1	Freezer Evaporator Coil	1" IW (by KEC) to FD	9.5 A - 208/1; Low voltage wiring from evaporator coil controller to BMS	Remote refrigeration from Item C07c
C08	18	Mobile Shelving Unit, Four-Tier			
C09	4	Pan Rack, Mobile			
C10	3	Utility Cart			
C11	1	-Spare Number-			
C12	1	-Spare Number-			
C13	5	Dumpling Rack			
C14	16	Storage Shelving, Five-Tier			
C15	1	Mop Sink & Service Faucet (by PC)	1/2" H&CW; Drain in floor		Install on sub-floor prior to finished floor
C16	1	Mop Rack/Shelf			Requires wall blocking by GC in non-masonry walls
C17	1	Front Load Clothes Washer	1/2" H&CW; Standpipe W	30 A circuit - 120/240/1 - C&P	4" diameter dryer vent
C18	1	Front Load Clothes Dryer		20 A circuit - 120/1 - C&P	
C19	1	-Spare Number-			
C20	1	-Spare Number-			
C21	1	Three-Compartment Sink	(2) 3/4" 120" FH&CW; (3) 2" W manifold thru GI by PC		
C22	1	Wall Shelf			
C23	1	Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
C24	1	Waste Bin (by Owner)	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
C25	1	Eye/Face Wash			Requires wall blocking by GC in non-masonry walls; Provided with thermostatic mixing valve assembly for installation by PC
C26	1	Water Filter Assembly	3/4" CW		Requires wall blocking by GC in non-masonry walls; PC to branch filtered CW supply piping to Items G05, G06 & G11
C27	1	Detergent Storage Cabinet			Requires wall blocking by GC in non-masonry walls
C28	1	Clean Ware Table			
C29	1	Warewasher, Rack Conveyor	1/2" HW (from Item C29a); 1/2" CW (drain tempering); 2" IW to FS	68 A - 480/3; J-box for EXH fan control wiring to interlock with warewasher operation	200 & 400 CFM thru (2) 4" x 16" vents @ 0.25" SP; Unit provided with drain water tempering system
C29a	1	Water Filter Assembly	3/4" HW		Requires wall blocking by GC in non-masonry walls
C30	2	Stainless Steel Exhaust Duct			
C31	1	Soiled Ware Table with Scrap Sink	2" W		
C32	1	Hose Reel Assembly	1/2" H&CW		Requires wall blocking by GC in non-masonry walls
C33	1	Double-Soiled Rack Shelf			Requires wall blocking by GC in non-masonry walls
C34	3	Waste Barrel (by Owner)			
C35	1	-Spare Number-			
C36	1	-Spare Number-			
D01	1	Dual Temp. Refrigerator/Freezer, Reach-In		6.5 A - 120/1 - C&P; 9.1 A - 120/1 - C&P	
D02	1	Pan Rack, Mobile			
D03	1	Microwave Oven		13 A - 120/1 - C&P	
D04	1	Work Counter with Sink	1/2" H&CW; 2" IW to FS	(2) 20 A circuit - 120/1 wall mounted convenience DR	
D05	1	-Spare Number-			
D06	1	Waste Bin (by Owner)			
D07	1	Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
D08	1	-Spare Number-			
D09	1	-Spare Number-			
D10	1	Demonstration Counter			
D11	1	Two-Burner/Griddle Range with Oven	3/4" G @ 135 MBTU (stub-up); QD	(3) 20 A circuit - 120/1 (stub-up) mounted DR by KEC 0.1 A - 120/1 - C&P (from mounted DR at Item D10)	
D12	1	Exhaust Ventilator		Power to lights from Item D10	EXH: 1,842 CFM thru a 14" diameter collar @ -1.034" SP; Coordinate support from structure above for hood hangers by KEC
D13	1	Ventilator Demand Control System		15 A circuit - 120/1 (See Note E-D13/FS2-3-1)	Control for Item D12; System processor provided with EXH VFD
D13a	1	Ventilator Control Interface Screen		Cable from Item D13	Cable supplied with system
D13b	1	Room Temperature Sensor		Wiring from Item D13	
D14	1	Fire Suppression System		120/1 - J-box for connection to building alarm system & equipment shutdown	Protection for Item D12
E15	12	Mobile Work Table			
E01	4	Pan Rack, Mobile			
E02	1	Ventilator Demand Control System		15 A circuit - 120/1 (See Note E-E02/FS2-3-1)	Control for Item E04; System processor provided with EXH VFD mounted in hood cabinet
E02a	1	Ventilator Control Interface Screen		Cable from Item E02	Cable supplied with system
E02b	1	Room Temperature Sensor		Wiring from Item E02	
E03	1	Fire Suppression System		120/1 - J-box for connection to building alarm system & equipment shutdown	Protection for Item E04; Mounted in hood cabinet
E04	1	Exhaust Ventilator		Power to lights from Item E02	EXH: 3,488 total CFM thru (2) 14" diameter collars @ -0.728" SP; Coordinate support from structure above for hood hangers by KEC
E05	1	Stainless Steel Wall Flashing			
E06	1	Donut Fryer with Filter Drawer	1/2" G @ 72 MBTU; QD	0.5 A - 120/1 - C&P; 7 A - 120/1 - C&P	
E07	1	Double Connection Oven	3/4" G @ 100 MBTU; QD	(2) 8 A - 120/1 - C&P	
E08	1	Six-Burner Range with Oven	3/4" G @ 215 MBTU; QD	0.1 A - 120/1 - C&P	
E09	1	Refrigerator, Reach-In		6.5 A - 120/1 - C&P	
E10	1	-Spare Number-			
E11	1	-Spare Number-			
E12	1	Water Filter Assembly	3/4" CW		Requires wall blocking by GC in non-masonry walls; PC to branch filtered water output piping to Items E13 & E14
E13	1	Double Combination Oven	(2) 3/4" G @ 98 MBTU QD; (2) 3/4" filtered CW (from Item E12); (2) 3/4" CW; (2) 1-1/2" IW to FS	(2) 6.8 A - 120/1 - C&P	
E14	1	EXISTING Roll-In Proofer		5.0 KW - 220/1 - C&P	Verify all utility requirements for existing equipment
E15	2	Mobile Work Table			
E16	1	Maple Top Work Bench			
E17	1	Utensil Rack, Ceiling Mount			
E18	1	Dough Divider/Rounder		8 A - 120/1 - C&P	Requires support by GC from structure above
E19	1	Mobile Sheeter Stand			
E20	1	Sheeter		5 A - 120/1 - C&P (from Item E30)	
E21	6	Five-Quart Mixer (three units on shelf below)		2.9 A - 120/1 - C&P (from convenience outlets)	
E22	1	Storage Shelving, Four-Tier			
E23	1	Eye/Face Wash	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls; Provided with thermostatic mixing valve assembly for installation by PC
E24	1	EXISTING Thirty-Quart Mixer		5.7 A - 34 HP - 208/1	Verify all utility requirements for existing equipment
E25	1	Single Bar Utensil Rack, Wall Mounted			Requires wall blocking by GC in non-masonry walls
E26	1	Fill Faucet	1/2" H&CW		
E27	1	EXISTING Sixty-Quart Mixer		10 A - 2.7 HP - 208/3	Verify all utility requirements for existing equipment
E28	1	-Spare Number-			
E29	1	Work Table with Double Overshelf & Pan Slides			
E30	12	Drop Cord Reel (by EC)		20 A circuit - 120/1 - C&P	Requires mounting support in ceiling by GC
E31	12	Maple Top Work Bench			
E32	12	Dough Scale (by FF&E)			
E33	24	Mobile Ingredient Bin			
E34	1	Slicer, Bread		6.2 A - 120/1 - C&P	
E35	1	Waste Barrel (by Owner)			
E36	1	Prep Table with Sinks	1/2" H&CW; (2) 2" IW to FS	(2) 20 A circuit - 120/1 wall mounted convenience DR	
E37	1	Wall Shelf			Requires wall blocking by GC in non-masonry walls
E38	1	ADA Compliant Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
E39	1	Waste Bin (by Owner)			
E40	1	Mobile Shelving Unit, Four-Tier			
E41	2	Mobile Equipment Stand			
E42	1	Vacuum Packaging Machine		20 A - 120/1 - C&P	
E43	2	Twenty-Quart Mixer		8 A - 120/1 - C&P	

CULINARY KITCHEN - SCHEDULE OF FOODSERVICE EQUIPMENT & CONNECTIONS					
Item	Qty	Description	Plumbing	Electrical	Mechanical / Equipment Remarks
E44	1	-Spare Number-			
E45	2	Mobile Equipment Stand			
F01	6	Work Table			
F02	3	Drop Cord Reel (by EC)			
F03	2	Utility Cart			
F04	1	ADA Compliant Prep Station Table with Sink	1/2" H&CW; 1-1/2" IW to FS	(3) 20 A circuit - 120/1 wall mounted convenience DR	Requires mounting support in ceiling by GC
F05	1	Water Filter Assembly	3/4" CW		PC to branch filtered water output piping to Item F15
F06	1	Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
F07	1	Waste Bin (by Owner)			
F08	1	Mobile Work Table			
F09	1	Cook's Work Table with Sink	1/2" H&CW; 2" IW to FS	(3) 20 A circuit - 120/1 mounted DR by KEC	
F10	1	Mobile Work Table		20 A circuit - 120/1 wall mounted convenience DR	
F11	1	-Spare Number-			
F12	1	-Spare Number-			
F13	1	Exhaust Ventilator		Power to lights from Item F19	EXH: 2,475 CFM thru a 16" diameter collar @ -0.872" SP; Coordinate support from structure above for hood hangers by KEC
F14	1	Exhaust Ventilator		Power to lights from Item F19	EXH: 2,400 CFM thru a 16" diameter collar @ -0.689" SP; Coordinate support from structure above for hood hangers by KEC All electrical connectors and flexible gas & water connectors to associated equipment provided with system by KEC. (Field connections by Related Trades)
F15	1	Utility Distribution System (UDS)	2" G @ 1,499 MBTU (looped service) (2,350 MBTU system capacity); 3/4" HW; 3/4" CW; 3/4" filtered CW (from Item F05)	80 A circuit - 120/208/3	EXH: 1,400 CFM thru a 12" diameter collar @ -0.600" SP; Coordinate support from structure above for hood hangers by KEC
F16	1	Exhaust Ventilator		Power to lights from Item F19	EXH: 3,315 total CFM thru (2) 14" diameter collars @ -0.723" SP; Coordinate support from structure above for hood hangers by KEC
F17	1	Exhaust Ventilator		Power to lights from Item F19	Protection for Items F13, F14, F16 & F17; Mounted in hood cabinet
F18	1	Fire Suppression System		120/1; J-box for connection to building alarm system & equipment shutdown	Control for Items F13, F14, F16 & F17; System processor provided with EXH VFD mounted in hood cabinet
F19	1	Ventilator Demand Control System		15 A circuit - 120/1 (See Note E-F1&F32-3-1)	Cable supplied with system
F19a	1	Ventilator Control Interface Screen		Cable from Item F19	
F19b	1	Room Temperature Sensor		Wiring from Item F19	
F20	1	-Spare Number-			
F21	1	-Spare Number-			
F22	1	Double Twenty-Quart Tiling Kettle	1/2" G @ 200 MBTU (from Item F15); 1/2" filtered CW (from Item F15); 1/2" HW (from Item F15); 1-1/4" IW to FS	1 A - 120/1 (from Item F15)	
F23	1	Forty-Quart Kettle With Drain Cart Stand	1/2" G @ 52 MBTU (from Item F15); 1/2" H&CW (from Item F15); 1-1/2" IW to FS	1 A - 120/1 (from Item F15)	
F24	1	Forty-Gallon Tilling Braising Pan	1/2" G @ 144 MBTU (from Item F15); 1/2" H&CW (from Item F15)	5 A - 120/1 (from Item F15)	
F25	1	Six-Burner Range with Oven	3/4" G @ 215 MBTU (from Item F15)	0.1 A - 120/1 - C&P (from Item F15)	
F26	1	Double Stacked Smoker Oven	3/4" G @ 98 MBTU (from Item F15); 3/4" filtered CW (from Item F15); 3/4" CW (from Item F15); 1-1/2" IW to FS	(2) 16 A - 120/1 - C&P (from Item F15) 6.8 A - 120/1 - C&P (from Item F15)	
F27	1	Combination Oven on Mobile Stand			
F28	1	Ten-Pan Steamer	3/4" G @ 84 MBTU (from Item F15); 3/4" filtered CW (from Item F15); 1-1/2" IW to FS	2 A - 120/1 (from Item F15)	
F29	1	Convection Oven	3/4" G @ 50 MBTU (from Item F15)	8 A - 120/1 - C&P (from Item F15)	
F30	1	Fill Faucet	1/2" H&CW (from Item F15)		
F31	1	Six-Burner Range with Oven & Backshelf Broiler	1" G @ 252 MBTU (from Item F15)	0.1 A - 120/1 - C&P (from Item F15)	
F32	1	Heavy Duty Underdrip Broiler	3/4" G @ 95 MBTU (from Item F15)		
F33	1	Griddle Range with Oven & Backshelf Broiler	1" G @ 132 MBTU (from Item F15)	0.1 A - 120/1 - C&P (from Item F15)	
F34	1	Fryer Assembly with Filter Drawer	3/4" G @ 160 MBTU (from Item F15)	3.4 A - 120/1 - C&P (from Item F15); 7 A - 120/1 - C&P (from Item F15)	
F35	1	Floor Pan & Grate	3" W conn 7" BFF		Requires floor depression by GC
F36	1	-Spare Number-			
F37	1	-Spare Number-			
F38	1	Chef's Counter Assembly with Double Overshelf & Load Center		200 A circuit - 120/208/3 (to mounted load center by KEC)	
F39	1	Work Sink (Part of Assembly)	1/2" H&CW (stub-up); 2" IW to FS		
F40	1	Prep Top Refrigerator (Part of Assembly)		9 A - 120/1 - C&P (from Item F38)	
F41	1	Steam Table, Three-Wall (Part of Assembly)	1/2" HW (stub-up); 1" IW to FS	15.9 A - 208/1 (from Item F38)	
F42	1	Prep Top Refrigerator (Part of Assembly)		9 A - 120/1 - C&P (from Item F38)	
F43	1	Work Top Freezer (Part of Assembly)		12 A - 120/1 - C&P (from Item F38)	
F44	1	Hand Sink (Part of Assembly)	1/2" H&CW (stub-up); 1-1/2" W		
F45	3	Heat Lamp, Shelf Mount		6.7 A - 208/1 (from Item F38)	
F46	1	Pizza Oven		17.5 A - 208/1 - C&P (NEMA 6-30P) (from Item F38)	
F47	1	Dipperwell & Faucet	1/2" HW; 1-1/4" IW to FS		
F48	3	POS Printer (by Owner)		3 A - 120/1 - C&P (from Item F38); Data cable	
F49	2	Pop-Up Toaster		12.5 A - 208/1 - C&P (NEMA 6-15P) (from Item F38)	
F50	1	Warmer, Drawer Type		3.3 A - 208/1 - C&P (from Item F38)	
F51	2	Soup Well, Drop-In	1/2" IW manifold to FS	3.8 A - 120/1 - C&P (from Item F38)	
F52	1	Hot Food Well, Drop-In	1/2" IW to FS	1.24 KW - 208/1 - C&P (NEMA 6-15P) (from Item F38)	
F53	1	Ice Cream Dipping Cabinet		5.7 A - 120/1 - C&P (from Item F38)	
F54	1	-Spare Number-			
F55	1	-Spare Number-			
F56	1	ADA Compliant Hand Sink	1/2" H&CW; 1-1/2" W		Requires wall blocking by GC in non-masonry walls
F57	1	Waste Bin (by Owner)			
F58	1	Wall Shelf			Requires wall blocking by GC in non-masonry walls
F59	1	Prep Table with Sinks	1/2" H&CW; (2) 2" IW to FS	(2) 20 A circuit - 120/1 wall mounted convenience DR	
F60	2	Waste Barrel (by Owner)		(2) 20 A circuit - 120/1 mounted DR by KEC; 20 A circuit - 120/1 mounted NEMA L5-15R by KEC; (2) 20 A circuit - 120/1 wall mounted convenience DR	
G01	1	Cafe Counter			
G02	1	Waste Bin			
G03	1	Paper Towel Dispenser, Drop-In			
G04	1	Undermount Hand Sink with Faucet & Soap Dispenser	1/2" H&CW; 1-1/2" W		
G05	1	Coffee Brewer (by Owner's Vendor)	3/8" filtered CW (from Item C26)	27.4 A - 120/208/1	Verify all utility requirements with Supplier
G06	1	Pre-Rinse Unit With Add-On Faucet			
G07	1	Undermount Work Sink	1-1/2" IW to FS		
G08	1	Hot Water Dispenser	1/4" filtered CW (from Item C26)	19.5 A - 208/1	
G09	1	Ice Dispenser, Manual Fill	3/4" IW to FS	2.5 A - 120/1	
G10	1	Trash Bin (by Owner)			
G11	1	Espresso Machine (by Owner's Vendor)	3/8" filtered CW (from Item C26); 3/4" IW to FS	16 A - 208/1 - C&P (NEMA L6-20R)	Verify all utility requirements with Supplier
G12	1	Refrigerator, Undercounter		2 A - 120/1 - C&P	
G13	1	Cashier Terminal (by Owner)		120/1 - C&P (from mounted DR at Item G18); Data Cable	
G14	1	Refrigerated Service Case		9.8 A - 120/1 - C&P (from mounted NEMA L5-15R at Item G01)	
G15	1	Non-Refrigerated Service Case		0.7 A - 120/1 - C&P (from mounted DR at Item G01)	
G16	1	-Spare Number-			
G17	1	-Spare Number-			
G18	1	Refrigerator, Reach-In		6.5 A - 120/1 - C&P	
G19	1	Wall Station Counter		(4) 20 A circuit - 120/1 wall mounted convenience DR	
G20	3	Wall Cabinets			Requires wall blocking by GC in non-masonry walls
G21	1	Warmer, Drawers Type		3.3 A - 208/1	
G22	1	Cashier Terminal (by Owner)		120/1 - C&P; Data Cable	

SCHEDULE NOTES

- UTILITIES SHOWN IN THESE SCHEDULES ARE SPECIFIC TO THE PRIME MANUFACTURER LISTED IN THE WRITTEN SPECIFICATION SECTION 1.4000. IF EQUIPMENT FROM AN ALTERNATE MANUFACTURER IS PROVIDED, IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE AND SUBMIT TO THE PROJECT DESIGN TEAM FOR REVIEW.
- UTILITIES LISTED ON THIS SCHEDULE FOR OWNER FURNISHED OR VENDOR SUPPLIED EQUIPMENT ARE ESTIMATES ASSUMED FOR ENGINEERING PURPOSES ONLY. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE EQUIPMENT CUT SHEETS OF THIS EQUIPMENT TO CRABTREE-MCGRATH ASSOCIATES PRIOR TO CONSTRUCTION.
- INSTALLING SUB-CONTRACTORS MUST NOTIFY CRABTREE-MCGRATH ASSOCIATES IF A UTILITY REQUIREMENT LISTED ON THIS EQUIPMENT SCHEDULE IS NOT AVAILABLE.
- REFER TO THE ABBREVIATIONS NOTES PROVIDED ON THIS SHEET FOR CLARIFICATION OF ABBREVIATIONS USED WITHIN THIS EQUIPMENT SCHEDULE.

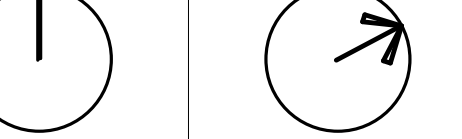
Abbreviations used:

A	Amperes	EXH	Exhaust	IW	Indirect waste
AFF	Above finished floor	FD	Floor drain	KEC	Kitchen Equip. Contractor
BFF	Below finished floor	FFD	Fumed floor drain	KW	Kilowatt
BTC	Branch to connection	FWH	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	HW	Hot water	SS	Seam supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Waste (direct connection)



PROJECT NORTH

MAGNETIC NORTH



CULINARY KITCHEN
FOODSERVICE
EQUIPMENT
SCHEDULE

Scale:

Job No.: 20202

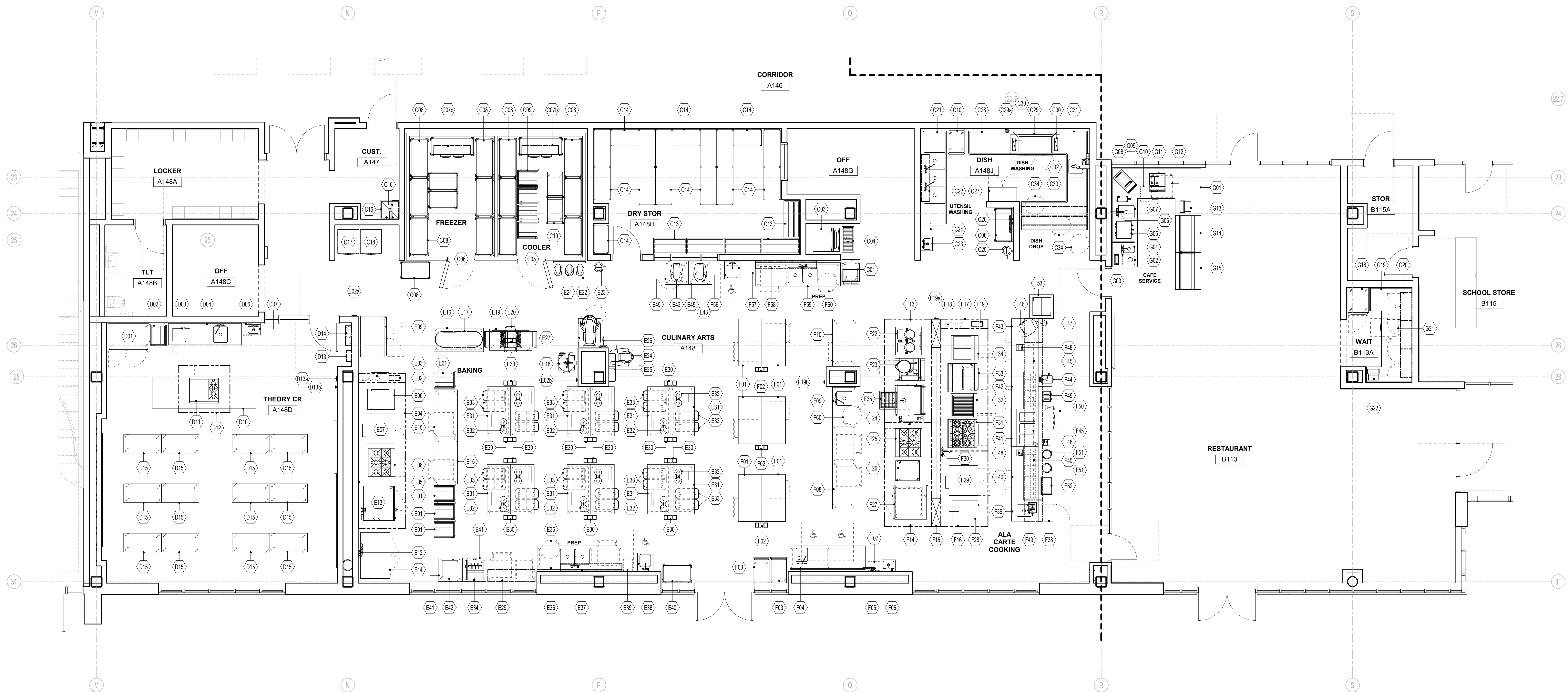
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Date: May 12th, 2023

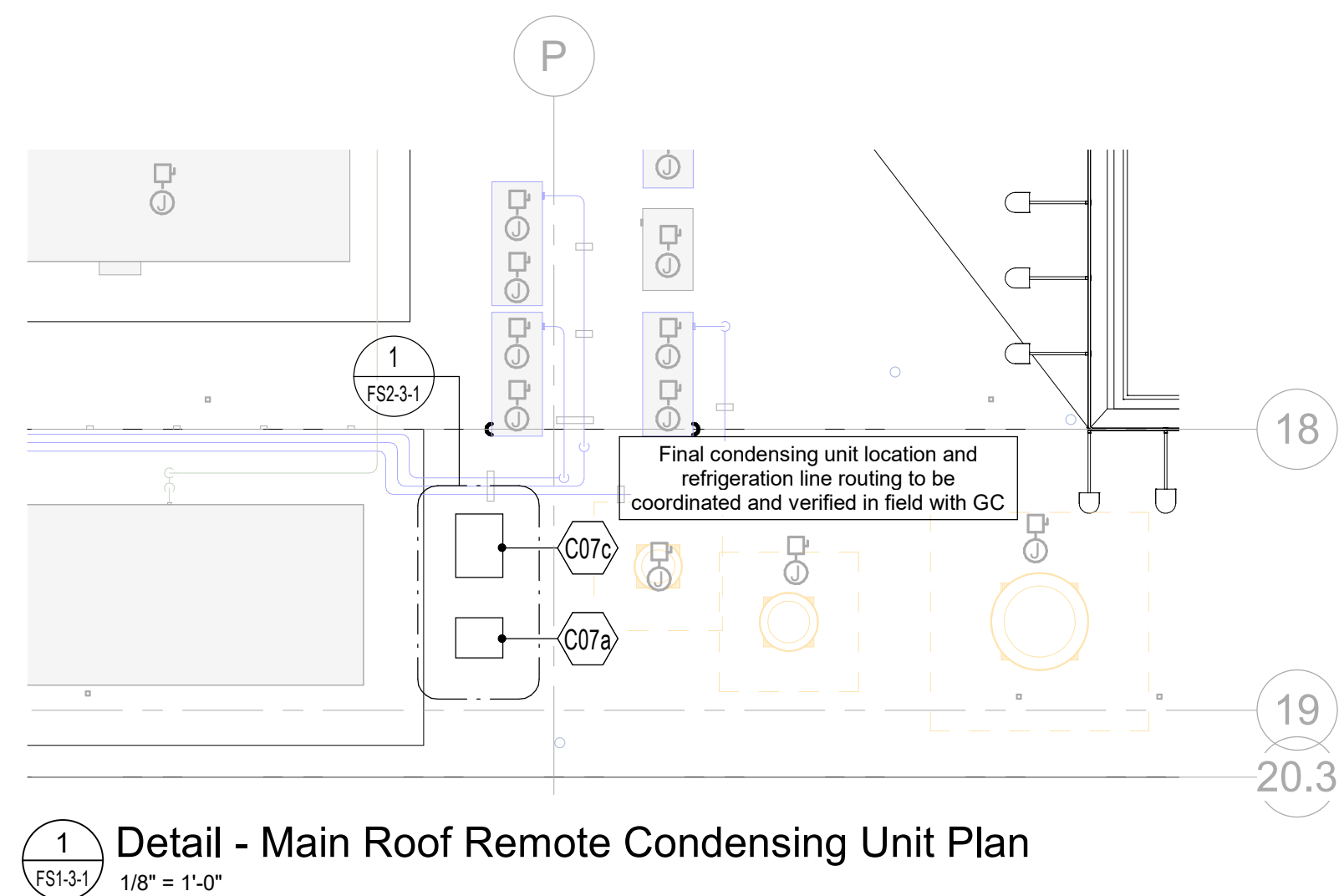
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MSBA 90% CD
SUBMISSION

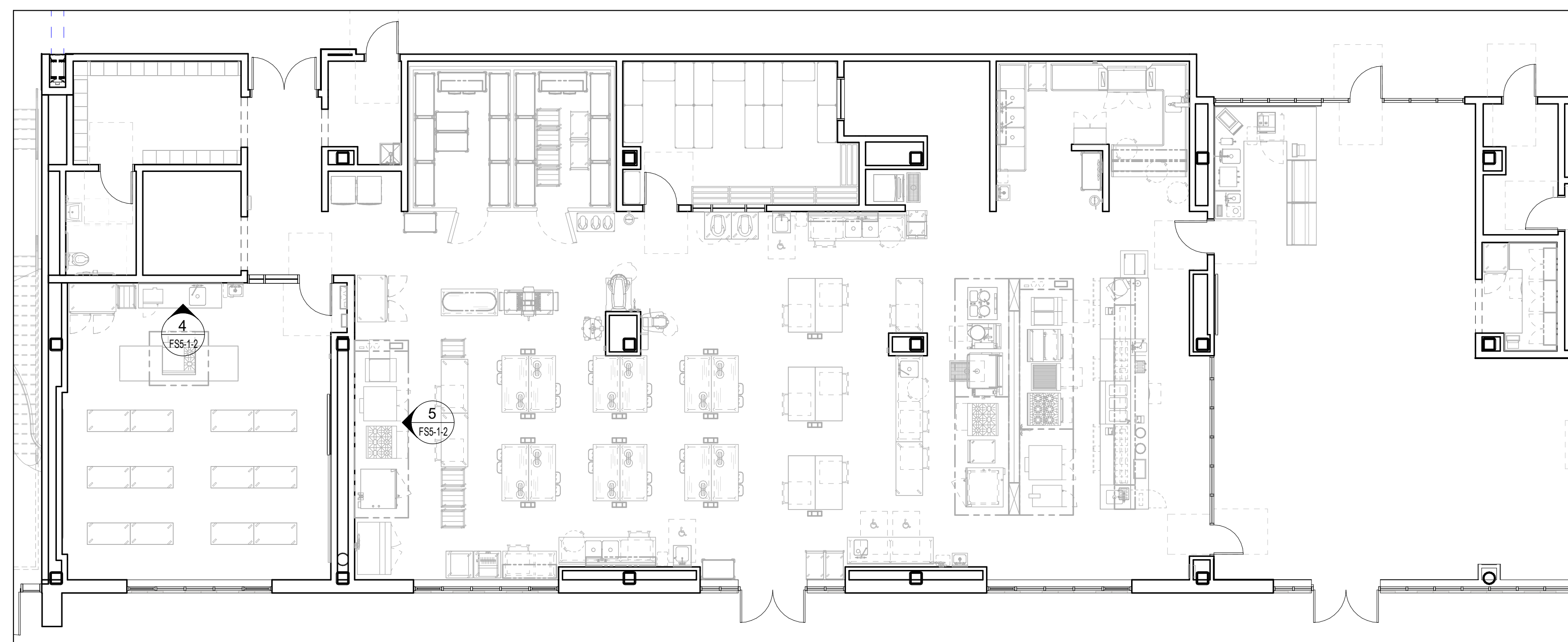
May 12th, 2023



CULINARY KITCHEN - FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"



1 Detail - Main Roof Remote Condensing Unit Plan
1/8" = 1'-0"



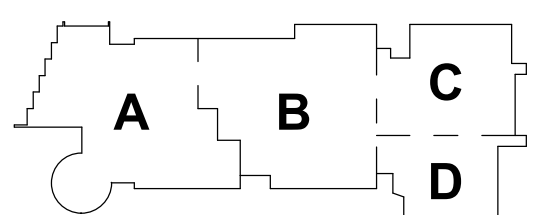
CULINARY KITCHEN - FOODSERVICE EQUIPMENT ROUGH-IN PLAN
1/8" = 1'-0"

PLAN NOTES

- IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO FIELD VERIFY THE DELIVERY PATH OF ALL EQUIPMENT WITHIN THEIR SCOPE WITH BUILDING CONDITIONS PRIOR TO ORDERING TO CONFIRM ALL EQUIPMENT FITS WITHIN THE DESIGNATED SPACE AS LOCATED ON PLANS.
- KITCHEN EQUIPMENT CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AS NECESSARY FOR OPENINGS IN BUILDING, WALL LEAVE OUTS, DOOR WIDTHS AND HEADER HEIGHTS REQUIRED FOR DELIVERY AND INSTALLATION MEANS.
- FINISHES TO ALL WALLS, FLOORS AND CEILINGS ARE TO BE PROVIDED BY THE GENERAL CONTRACTOR AS SPECIFIED BY THE PROJECT ARCHITECT TO MEET THE REQUIREMENTS OF THE LOCAL HEALTH DEPARTMENT.
- REVISIONS TO THESE PLANS DUE TO FIELD CONDITIONS MUST BE SUBMITTED TO THE PROJECT DESIGN TEAM FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
- FLOORING MATERIAL SPECIFIED BY THE ARCHITECT MUST BE PROVIDED WITH A COVERED BASE AT ALL WALLS TO INCLUDE THE INTERIOR AND EXTERIOR OF WALK-IN REFRIGERATED ROOMS.
- ALL FOODSERVICE EQUIPMENT AND CUSTOM FABRICATED ITEMS MUST MEET THE STANDARDS OF THE NATIONAL SANITATION FOUNDATION AND SHALL BE LABELED ACCORDINGLY.

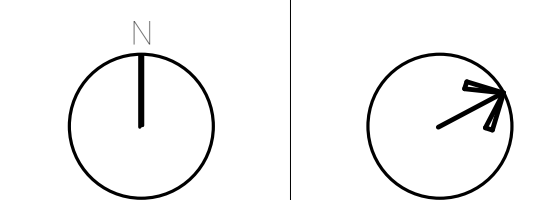
Abbreviations used:

A	Ampere	EXH	Exhaust	IW	Indirect waste
AFF	Above finished floor	FD	Floor drain	KEC	Kitchen Equip. Contractor
BFF	Below finished floor	FDD	Furned floor drain	KW	Kilowatt
BTC	Branch to connection	FHW	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	HW	Hot water	SS	Steam supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Waste (direct connection)



KEY PLAN

PROJECT NORTH MAGNETIC NORTH



**CULINARY KITCHEN
FOODSERVICE
EQUIPMENT PLAN**

Scale: As indicated

Job No.: 20202

Drawn By: RM

Date: May 12th, 2023

FS1-3-1

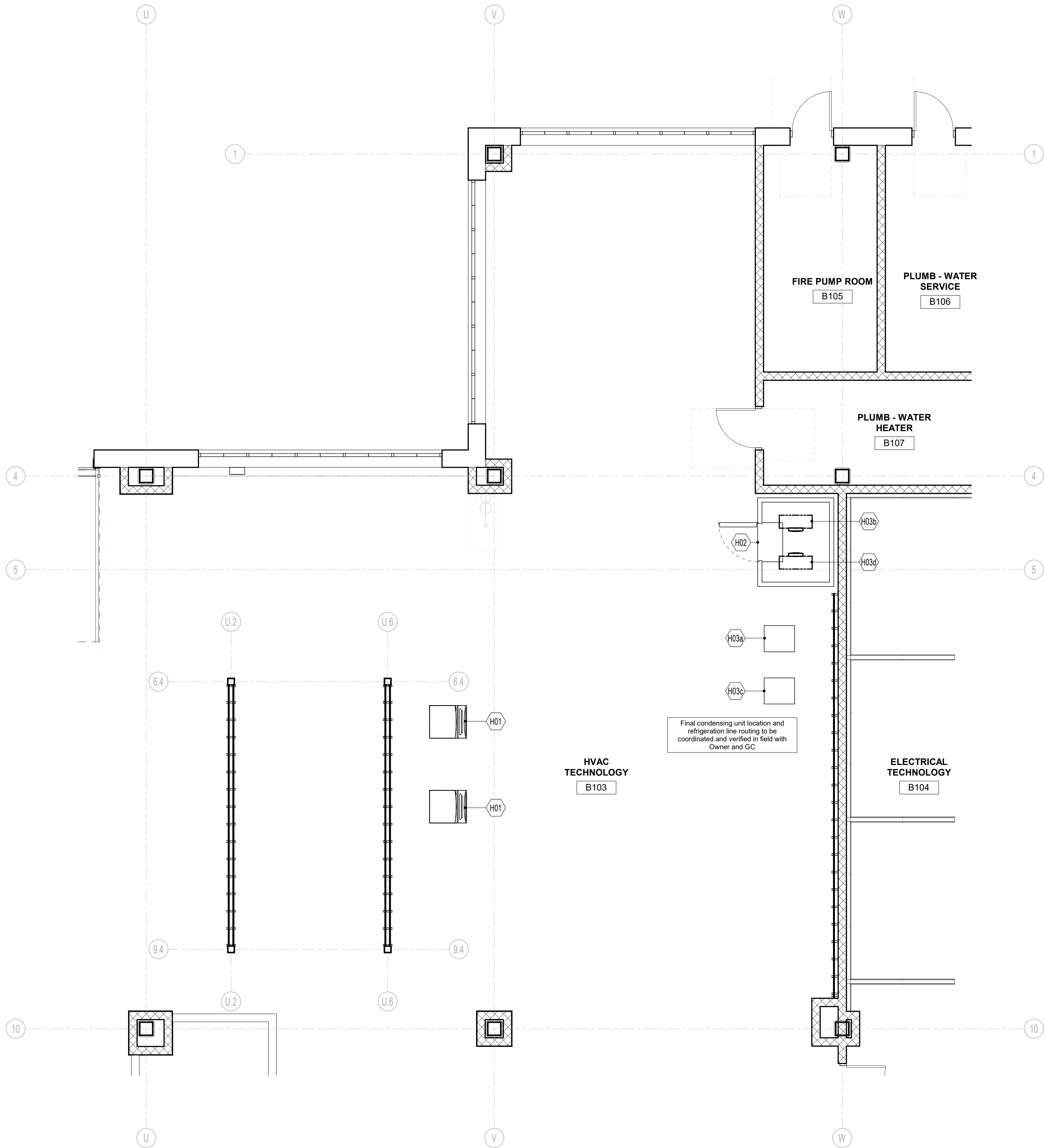
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HVAC TECH - SCHEDULE OF FOODSERVICE EQUIPMENT & CONNECTIONS						
Item	Qty	Description	Plumbing	Electrical	Mechanical / Equipment Remarks	
H01	2	Ice Maker with Bin (by Owner)	3/8" filtered CW (stub-up); 1/2" & 3/4" IW to FS	11.5 A - 120/1 (stub-up)		
H02	1	Refrigerated Room		1.3 KW - 120/1 (lights, temp. monitoring, etc); 20 A circuit - 120/1 DR (drain line heater)		
H03a	1	Cooler Condensing Unit		5.4 A - 0.5 HP - 208/1 (stub-up)		
H03b	1	Cooler Evaporator Coil	1" IW (by KEC) to FD	0.6 A - 120/1	Remote refrigeration from Item H03a	
H03c	1	Freezer Condensing Unit		6.6 A - 1 HP - 208/3 (stub-up)		
H03d	1	Freezer Evaporator Coil	1" IW (by KEC) to FD	4.6 A - 208/1	Remote refrigeration from Item H03c	



HVAC TECH - FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"

SCHEDULE NOTES

- UTILITIES SHOWN IN THESE SCHEDULES ARE SPECIFIC TO THE PRIME MANUFACTURER LISTED IN THE WRITTEN SPECIFICATION SECTION 114000. IF EQUIPMENT FROM AN ALTERNATE MANUFACTURER IS PROVIDED, IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE AND SUBMIT TO THE PROJECT DESIGN TEAM FOR REVIEW.
- UTILITIES LISTED ON THIS SCHEDULE FOR OWNER FURNISHED OR VENDOR SUPPLIED EQUIPMENT ARE ESTIMATES ASSIGNED FOR ENGINEERING PURPOSES ONLY. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE EQUIPMENT CUT SHEETS OF THIS EQUIPMENT TO CRABTREE-MCGRATH ASSOCIATES PRIOR TO CONSTRUCTION.
- INSTALLING SUB-CONTRACTORS MUST NOTIFY CRABTREE-MCGRATH ASSOCIATES IF A UTILITY REQUIREMENT LISTED ON THIS EQUIPMENT SCHEDULE IS NOT AVAILABLE.
- REFER TO THE ABBREVIATIONS NOTES PROVIDED ON THIS SHEET FOR CLARIFICATION OF ABBREVIATIONS USED WITHIN THIS EQUIPMENT SCHEDULE.

PLAN NOTES

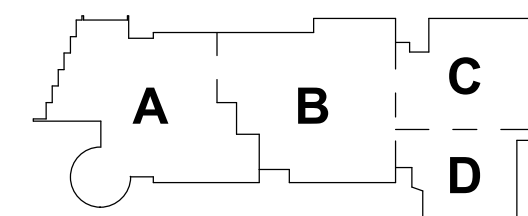
- IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO FIELD VERIFY THE DELIVERY PATH OF ALL EQUIPMENT WITHIN THEIR SCOPE WITH BUILDING CONDITIONS PRIOR TO ORDERING TO CONFIRM ALL EQUIPMENT FITS WITHIN THE DESIGNATED SPACE AS LOCATED ON PLANS.
- KITCHEN EQUIPMENT CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AS NECESSARY FOR OPENINGS IN BUILDING, WALL LEAVE OUTS, DOOR WIDTHS AND HEADER HEIGHTS REQUIRED FOR DELIVERY AND INSTALLATION MEANS.
- FINISHES TO ALL WALLS, FLOORS AND CEILINGS ARE TO BE PROVIDED BY THE GENERAL CONTRACTOR AS SPECIFIED BY THE PROJECT ARCHITECT TO MEET THE REQUIREMENTS OF THE LOCAL HEALTH DEPARTMENT.
- REVISIONS TO THESE PLANS DUE TO FIELD CONDITIONS MUST BE SUBMITTED TO THE PROJECT DESIGN TEAM FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
- FLOORING MATERIAL SPECIFIED BY THE ARCHITECT MUST BE PROVIDED WITH A COVERED BASE AT ALL WALLS TO INCLUDE THE INTERIOR AND EXTERIOR OF WALK-IN REFRIGERATED ROOMS.
- ALL FOODSERVICE EQUIPMENT AND CUSTOM FABRICATED ITEMS MUST MEET THE STANDARDS OF THE NATIONAL SANITATION FOUNDATION AND SHALL BE LABELED ACCORDINGLY.

Abbreviations used:

A	Amps	EXH	Exhaust	IW	Indirect waste
AFF	Above finished floor	FD	Floor drain	KEC	Kitchen Equip. Contractor
BFF	Below finished floor	FW	Furned floor drain	KW	Kilowatt
BTC	Branch to connection	FWH	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	HW	Hot water	SS	Steam supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Waste (direct connection)

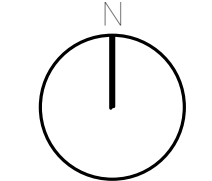
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May 12th, 2023

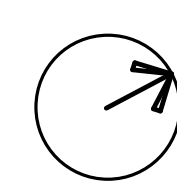


KEY PLAN

PROJECT NORTH



MAGNETIC NORTH



HVAC TECH
FOODSERVICE
EQUIPMENT PLAN

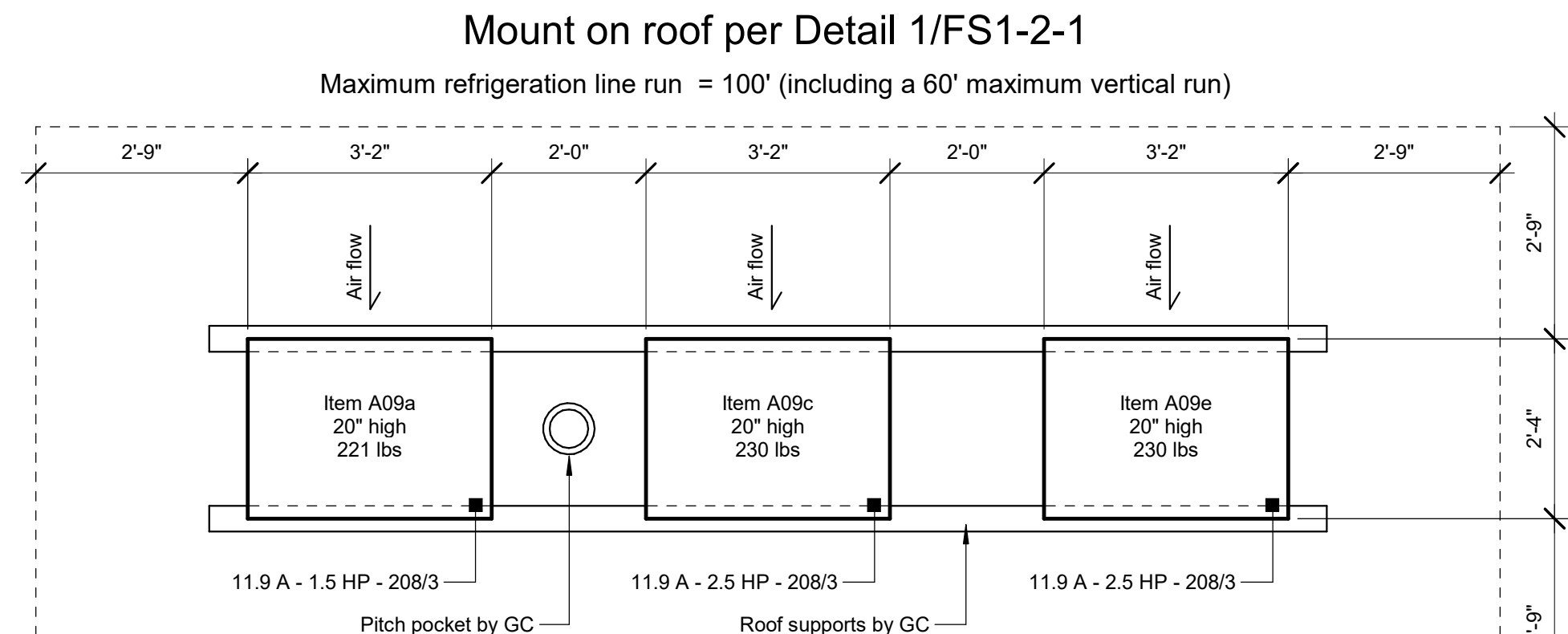
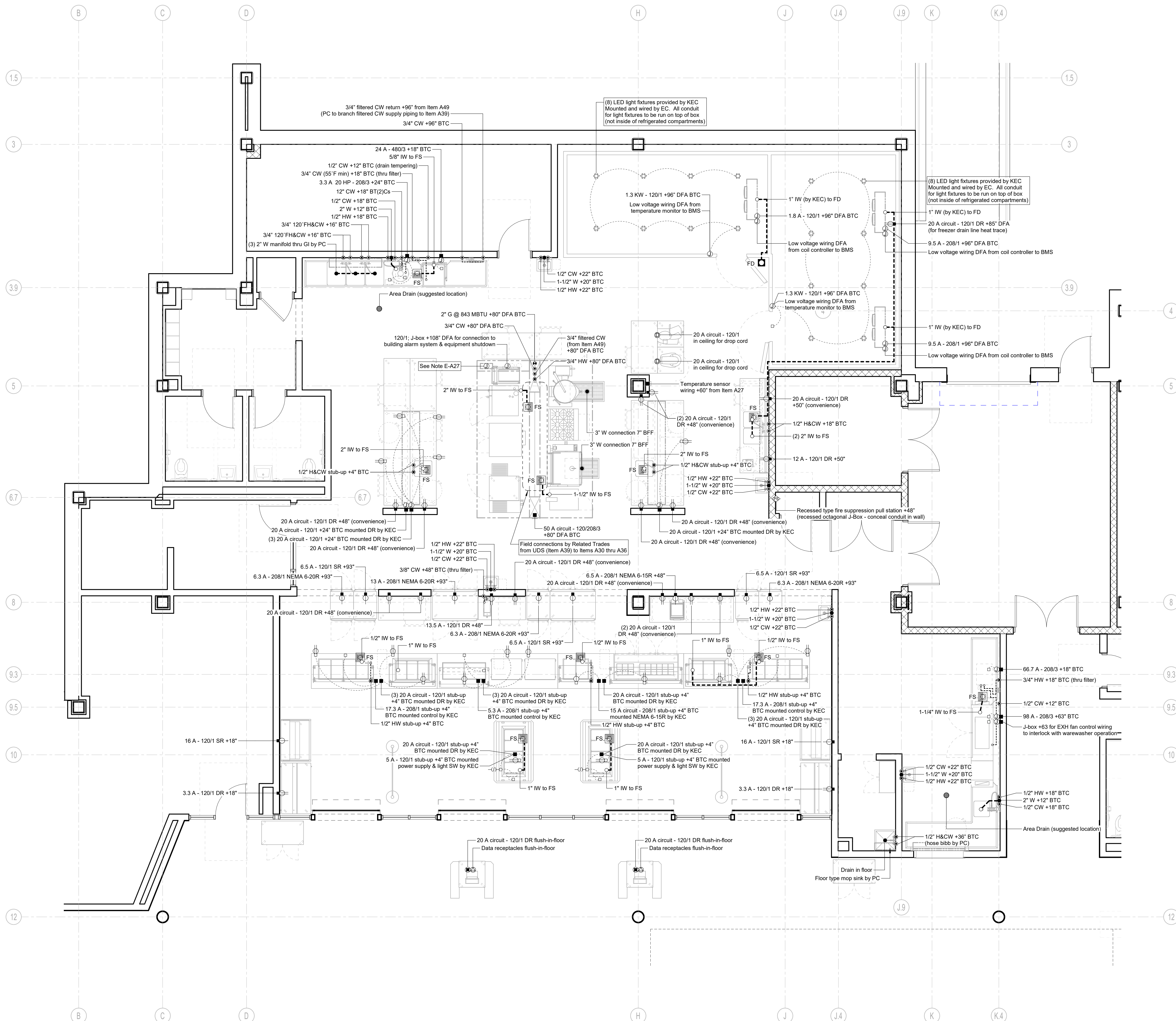
Scale: 1/4" = 1'-0"

Job No.: 20202

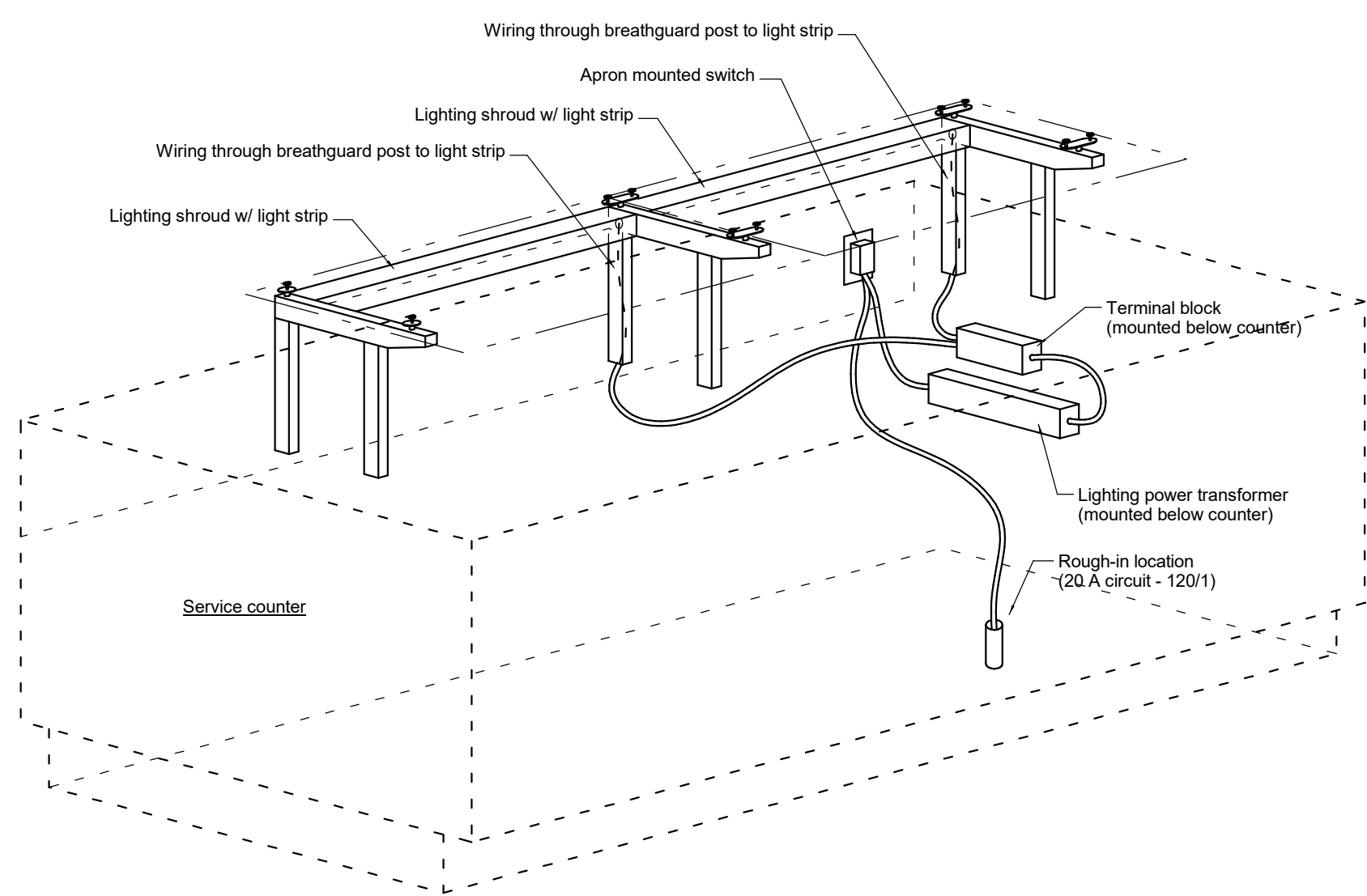
Drawn By: RM

Date: May 12th, 2023

FS1-4-1



Detail - Remote Condensing Units
NTS



Detail - Typical Food Protector Light Fixture Wiring
NTS



Abbreviations used:			
A	Ampere	EXH	Exhaust
AFF	Above finished floor	FD	Floor drain
BFF	Below finished floor	FDD	Funnel floor drain
BTC	Branch to connection	FW	Fahrenheit hot water
C&P	Cord & plug provided	FS	Floor sink
CFM	Cubic feet per minute	G	Gas
CR	Condensate return	GC	General Contractor
CW	Cold water	GI	Grease interceptor
DFA	Drop from above	HP	Horsepower
DR	Duplex receptacle	HW	Hot water
EC	Electrical contractor	H&CW	Hot & cold water
IW	Indirect waste	KW	Kilowatt
Kitchen Equip.	Kitchen Equip.	MBTU	BTU per hour/1000
MUA	Make-up air	PC	Plumbing Contractor
QD	Quick disconnect	SP	Static pressure (WG)
SR	Single receptacle	SS	Steam supply
W	Water (direct connection)		

Note E-A27

15 A circuit - 120/1 DFA for conn to ventilator control & hood lights at Items A37 & A38; Microswitch wiring from fire suppression system (Item A28); EC to provide CATS connection to remote touch screen (Item A27a - cable supplied with system); EC to provide high voltage cones from VFD to EXH fan; EC to provide wiring to temp sensors at hoods; EC to provide wiring to room temp sensors (Item A27b); EC to provide wiring from building management system remote control

PLUMBING NOTES

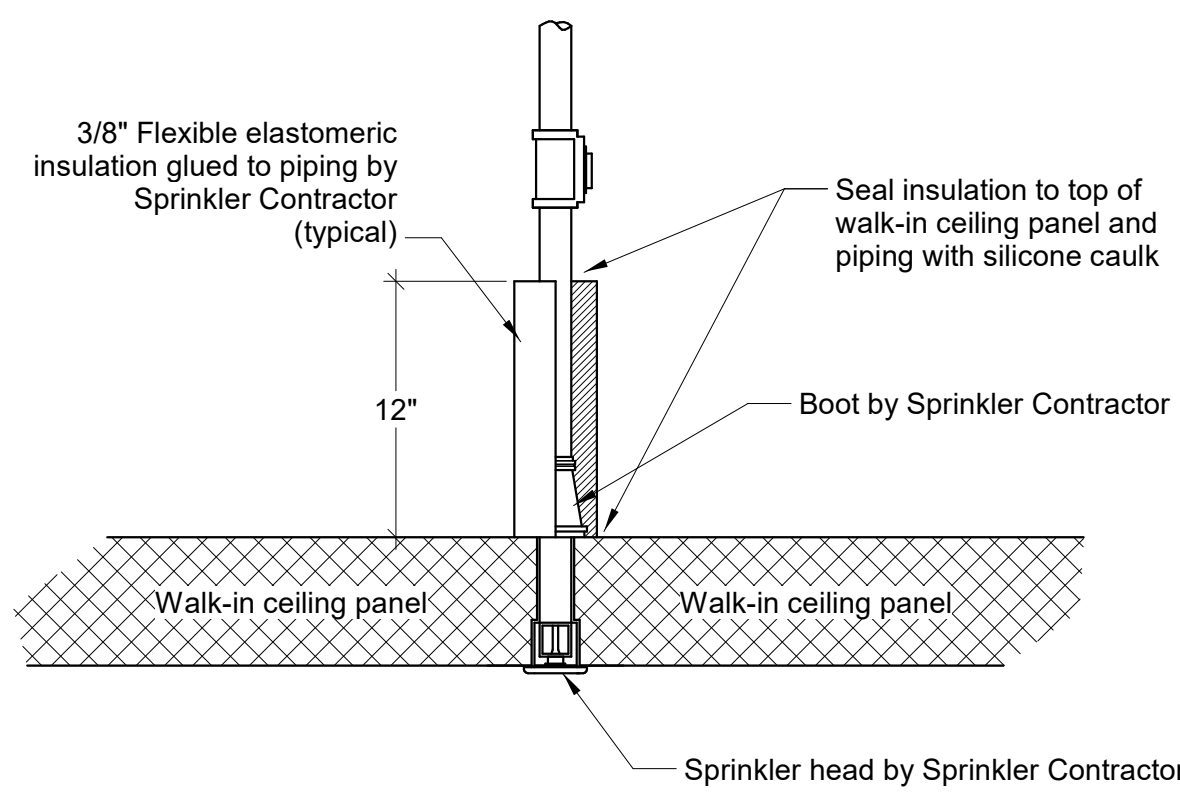
- DIMENSIONS ON THIS PLAN ARE PROVIDED FOR DESIGN INTENT. IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND HEIGHTS LISTED IN THE FIELD WITH THE EQUIPMENT BEING PROVIDED.
- PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL FINAL CONNECTIONS TO EQUIPMENT THAT REQUIRE A BRANCH TO CONNECTION (BTC), OR WHERE PLUMBING INTERCONNECTION IS INDICATED ON THE PLAN WITH A DASHED LINE.
- PLUMBING CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL MANUFACTURER'S SHOP DRAWINGS AND EQUIPMENT CUT SHEETS SUBMITTED TO CONFIRM SCOPE REQUIREMENTS AND INSTALLATION EXPECTATIONS.
- ALL FLOOR SINKS AND DRAINS MUST BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR. AREA DRAINS, IF LOCATED ON THESE PLANS, ARE TO BE CONSIDERED RECOMMENDED AREAS. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO CONFIRM QUANTITIES AND LOCATIONS OF AREA DRAINS WITH THE LOCAL AUTHORITY HAVING JURISDICTION.
- FLOOR SINKS LOCATED UNDER COUNTERS WITH LIMITED ACCESSIBILITY MUST BE INSTALLED 50% EXPOSED AND EASILY ACCESSIBLE FOR CLEANING. IF A FLOOR SINK CAN NOT BE INSTALLED 50% EXPOSED, THE UNDER SHELF OF THE CABINET MUST BE FULLY REMOVABLE OR BE PROVIDED WITH AN ACCESS PANEL LARGE ENOUGH TO REMOVE THE DRAIN GRATE FOR CLEANING.
- CONDENSATE DRAIN LINES FROM WALK-IN REFRIGERATED ROOM EVAPORATOR COILS SHALL BE INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR. DRAIN LINES MUST BE COPPER AND INSTALLED 1" OFF THE WALLS WITH A MINIMUM PITCH OF 1/2" PER FOOT. DRAIN PENETRATIONS THROUGH THE WALK-IN REFRIGERATED ROOM WALL PANEL MUST BE APPROPRIATELY SEALED TO INCLUDE A VAPOR SEAL AND PROVIDED WITH CHROME EXCUTTER PLATES. AT ALL EXPOSED POINTS WHERE PIPING PENETRATES THE WALL DRAINS MUST BE "P" TRAPPED OUTSIDE OF THE REFRIGERATED ROOM WALL TO AVOID ENTRANCE OF WARM AIR AND TERMINATED 1" ABOVE THE FLOOR DRAIN OR AS REQUIRED BY LOCAL CODE.
- A MAIN SHUT-OFF GAS VALVE MUST BE INSTALLED BY THE PLUMBING CONTRACTOR LOCATED TO MEET THE REQUIREMENTS OF THE PLUMBING CODE.
- PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL DRAINS, FAUCETS, PIPING TRAPS, VALVES, SHUT-OFFS, GAUGES, WATER PRESSURE REDUCERS, REGULATORS AND BACKFLOW PREVENTION, ETC. AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
- IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO FLUSH ALL WATER LINES PRIOR TO FINAL CONNECTION TO FOODSERVICE EQUIPMENT.
- A MAIN SHUT-OFF GAS VALVE MUST BE INSTALLED BY THE PLUMBING CONTRACTOR LOCATED TO MEET THE REQUIREMENTS OF THE PLUMBING CODE.
- GAS SUPPLY TO ALL COOKING EQUIPMENT MUST BE PROVIDED WITH AN ELECTRIC OR MECHANICAL SHUT-OFF VALVE. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH THE VALVE AND INSTALLATION PERFORMED BY THE PLUMBING CONTRACTOR. VALVE SHALL BE TIED INTO THE FIRE PROTECTION SYSTEM FOR AUTOMATIC SHUT-OFF.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR LOCATION OF GREASE TRAPS AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. GREASE TRAPS MUST BE LOCATED IN A MANNER THAT DOES NOT INTERFERE WITH FOODSERVICE EQUIPMENT LAYOUT.

ELECTRICAL NOTES

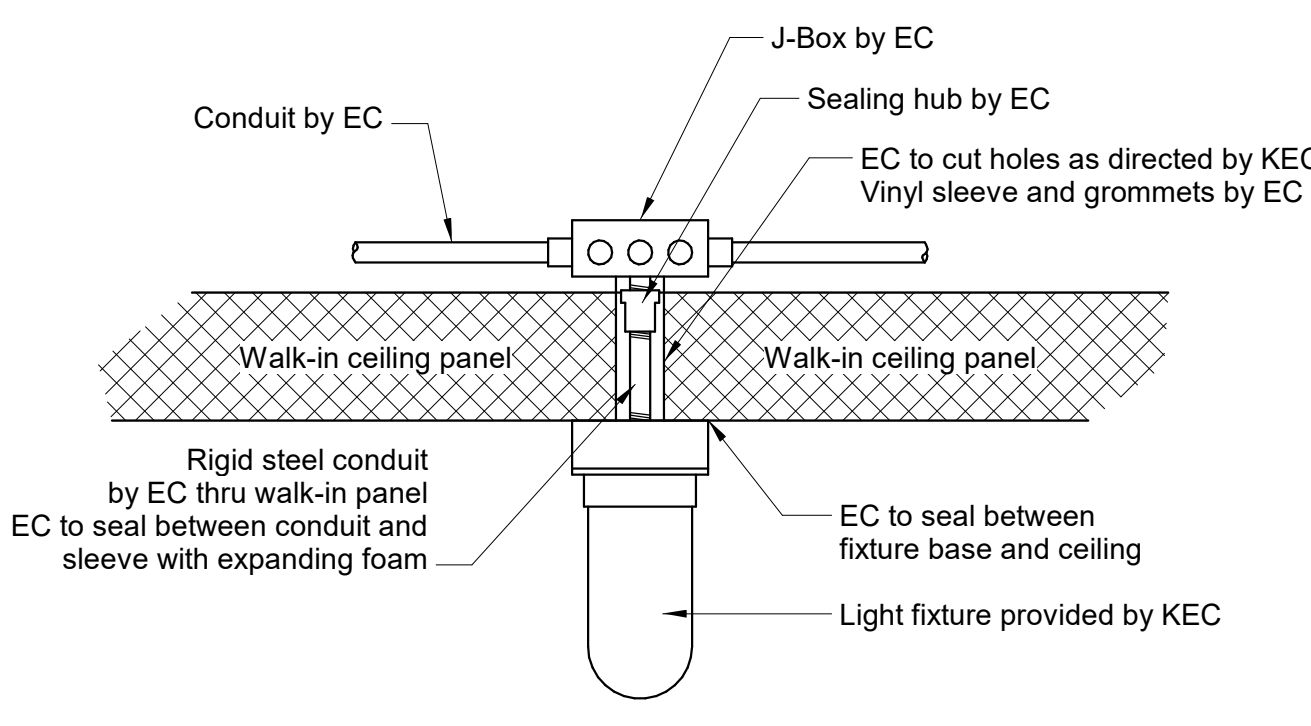
- DIMENSIONS ON THIS PLAN ARE PROVIDED FOR DESIGN INTENT. IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND HEIGHTS LISTED IN THE FIELD WITH THE EQUIPMENT BEING PROVIDED.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL FINAL CONNECTIONS TO EQUIPMENT THAT REQUIRES A BRANCH TO CONNECTION (BTC), OR WHERE INTER-WIRING IS INDICATED ON THE PLAN IN A DASHED LINE.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL MANUFACTURER'S SHOP DRAWINGS AND EQUIPMENT CUT SHEETS SUBMITTED TO CONFIRM SCOPE REQUIREMENTS AND INSTALLATION EXPECTATIONS.
- ELECTRICAL PANELS PROVIDED SHALL BE DESIGNED WITH A MINIMUM OF 20% SPARE CAPACITY FOR FUTURE EXPANSION UNLESS OTHERWISE APPROVED BY THE OWNER.
- ELECTRICAL CONTRACTOR TO INSTALL DROP CORDS AS LOCATED ON PLANS WITH THE CORD ADJUSTED TO HANG 78" ABOVE FINISH FLOOR. PLASTIC WIRE TIES ARE NOT ACCEPTABLE FOR THIS WORK. DROP CORDS MUST BE PROVIDED WITH STRAIN RELIEF.
- ELECTRICAL CONNECTIONS ON THIS PLAN ARE PROVIDED AS IT RELATES SPECIFICALLY TO FOODSERVICE EQUIPMENT. CONVENIENCE OUTLETS ARE PROVIDED IN SPECIFIC LOCATIONS AS REQUESTED BY OWNER. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ANY OTHER ELECTRICAL OUTLETS AS REQUIRED TO MEET CODE REQUIREMENTS BY LOCAL AUTHORITY HAVING JURISDICTION.
- WALK-IN REFRIGERATED ROOM LIGHT FIXTURES ARE TO BE PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR. LIGHTS ARE TO BE MOUNTED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO CONFIRM WITH THE WALK-IN REFRIGERATED ROOM MANUFACTURER THAT THE QUANTITY AND LOCATIONS OF THE LIGHTING LAYOUT WILL MEET 20 FOOT CANDLES OF LIGHT AT A DISTANCE OF 30" ABOVE FINISH FLOOR AS REQUIRED IN WALK-IN REFRIGERATED ROOMS BY THE NATIONAL FOOD CODE.
- DRAIN PIPING WITHIN A WALK-IN FREEZER SHALL BE PROVIDED WITH A DRAIN LINE HEATER AND INSULATION. FINAL CONNECTION OF THE DRAIN LINE HEATER MUST BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- ELECTRICAL CONTRACTOR TO INSTALL UTILITIES CONCEALED IN WALLS AND STUB-OUT AT TERMINATION POINTS.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WIRING BETWEEN EXHAUST VENTILATORS, AND ASSOCIATED FAN SYSTEMS, CONTROL PANELS, MAGNETIC STARTERS, FIRE SUPPRESSION SYSTEMS, PUMP STATIONS, AND SWITCHES AS REQUIRED.
- CONTROL AND POWER WIRING BETWEEN CONTROL PANELS AND GARBAGE DISPOSALS, WASTE PULPERS, TROUGH COLLECTORS ETC. ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- ELECTRICAL CONTRACTOR MUST VERIFY REMOTE FIRE SUPPRESSION PULL STATION LOCATIONS WITH THE LOCAL FIRE INSPECTOR PRIOR TO INSTALLATION.
- ELECTRICAL CONTRACTOR MUST VERIFY REMOTE FIRE SUPPRESSION PULL STATION LOCATIONS WITH THE LOCAL FIRE INSPECTOR PRIOR TO INSTALLATION.
- FOOD PREPARATION AREAS MUST BE PROVIDED WITH 50 FOOT CANDLES OF LIGHTING AS REQUIRED BY THE NATIONAL FOOD CODE.
- FOODSERVICE EQUIPMENT CAN NOT BLOCK ACCESS TO GFI RECEPTACLES. CRABTREE-McGRATH ASSOCIATES STRONGLY RECOMMENDS THAT THE ELECTRICAL CONTRACTOR PROVIDE GFI PROTECTION AT THE CIRCUIT BREAKER PANEL. THIS WILL ALSO LIMIT NUISANCE TRIPPING THAT IS COMMON WITH COMMERCIAL FOODSERVICE EQUIPMENT.

MAIN KITCHEN - FOODSERVICE EQUIPMENT ROUGH-IN PLAN

1/4" = 1'-0"



Typical Detail - Refrigerated Room Fire Sprinkler
NTS



- Notes:**
- All light fixture to be furnished by KEK
 - Mounting light fixtures, all conduit and interwiring by EC
 - All conduit to be on exterior of walk-in by EC
 - All penetrations thru walk-in panels to be thoroughly sealed by EC

Typical Detail - Refrigerated Room Light Fixture
NTS

PLUMBING ROUGH-IN LEGEND

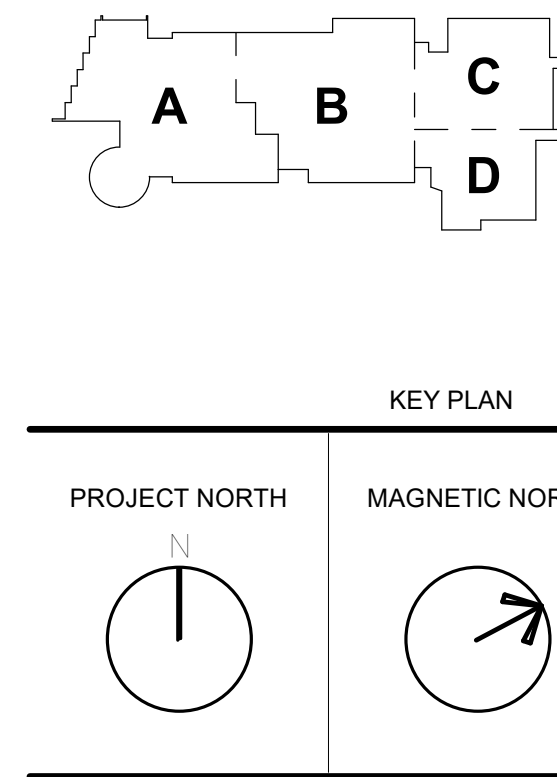
●	HOT WATER
●	COLD WATER
●	WASTE - DIRECT CONNECTED
●	WASTE - INDIRECT
○	GAS
⊗	AREA FD (SUGGESTED LOCATION)
□	FLOOR DRAIN
□	FUNNEL FLOOR DRAIN
□	FLOOR SINK
□	FLOOR SINK (34 GRATE)
□	FLOOR SINK (12 GRATE)
○	FIELD CONNECTION
—	FIELD PIPING (WASTE)
- - -	FIELD PIPING (WATER)

ELECTRICAL ROUGH-IN LEGEND

□	DUPLEX RECEPTACLE
□	DUPLEX RECEPTACLE (TABLE MOUNTED)
□	SIMPLEX RECEPTACLE
□	SIMPLEX RECEPTACLE (TABLE MOUNTED)
□	SPECIAL PURPOSE RECEPTACLE
⊗	FLOOR RECEPTACLE
□	JUNCTION BOX
□	DROP CORD
□	ELECTRICAL CONDUIT
□	FIELD CONNECTION
□	SWITCH
□	LIGHT FIXTURE
⊗	FIRE PULL STATION
- - -	FIELD WIRING

MSBA 90% CD
SUBMISSION

May 12th, 2023



**MAIN KITCHEN
FOODSERVICE
EQUIPMENT ROUGH-IN
PLAN**

Scale: As indicated
Job No.: 20202
Drawn By: RM
Date: May 12th, 2023

FS2-2-1

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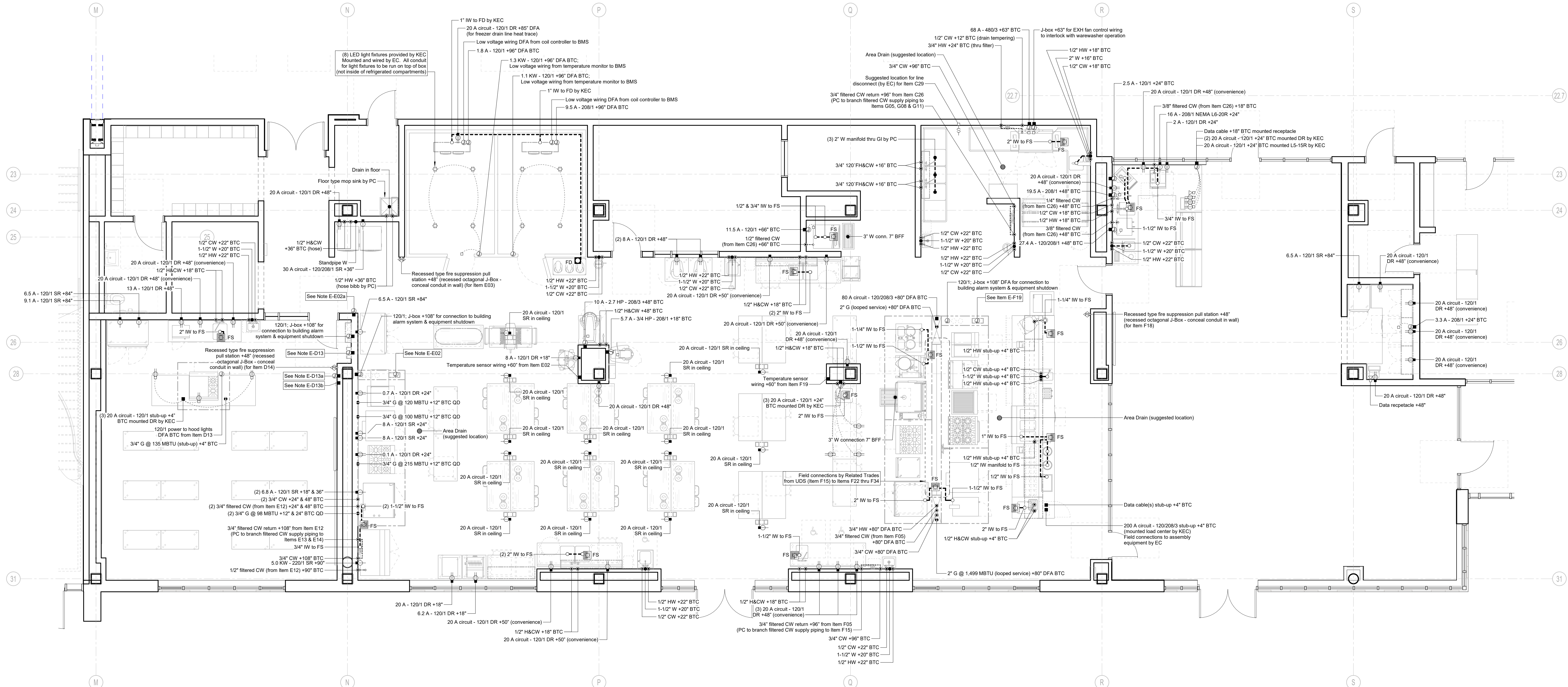
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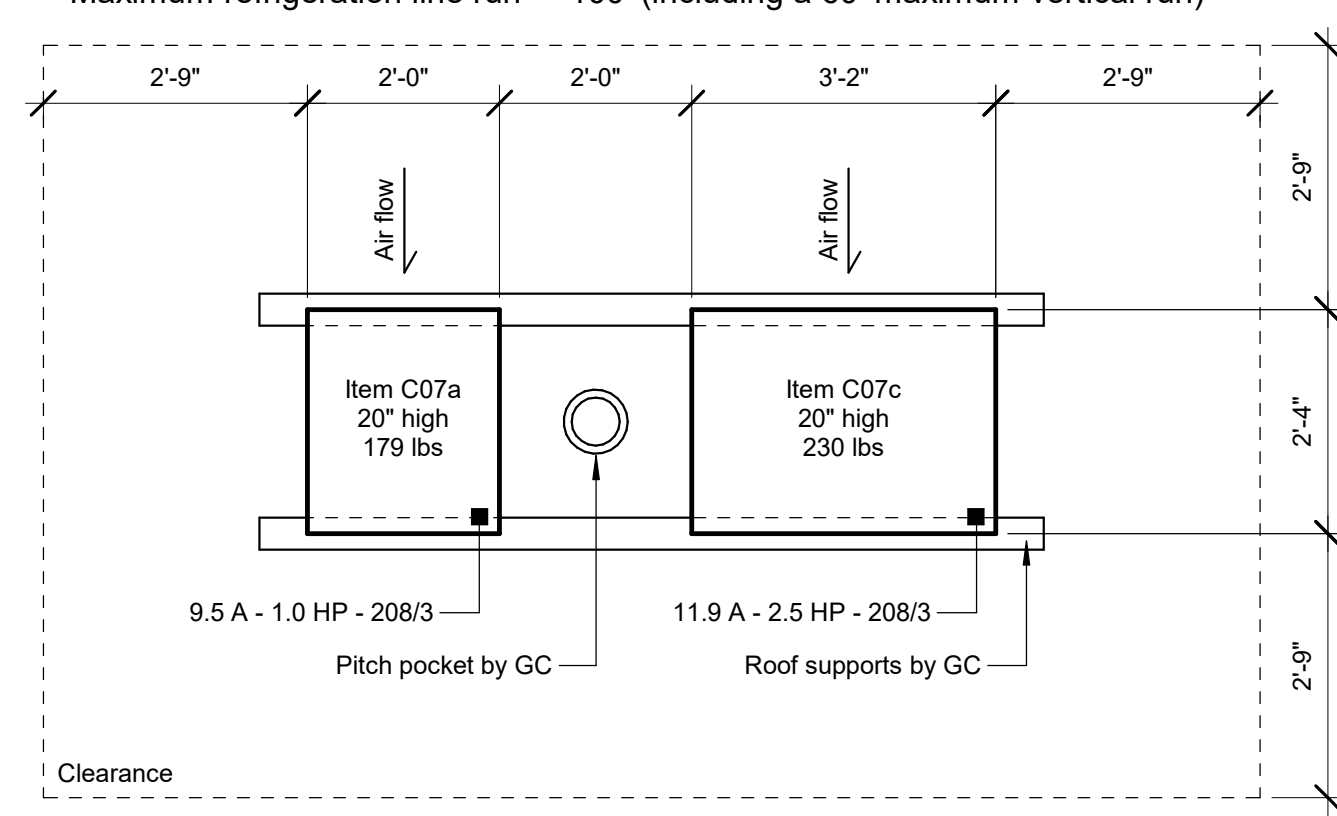


CULINARY KITCHEN - FOODSERVICE EQUIPMENT ROUGH-IN PLAN

1/4" = 1'-0"

Mount on roof per Detail 1/FS1-3-1

Maximum refrigeration line run = 100' (including a 60' maximum vertical run)

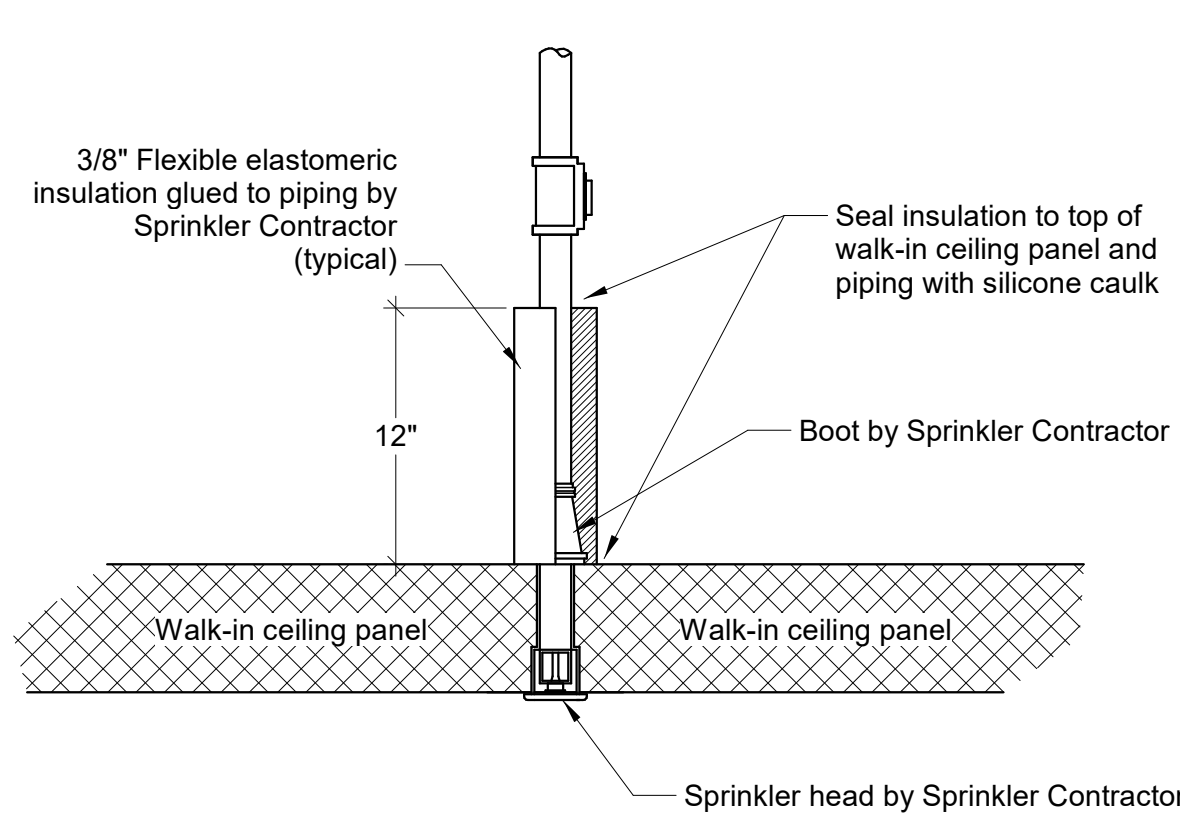


1 Detail - Remote Condensing Units

1/2" = 1'-0"

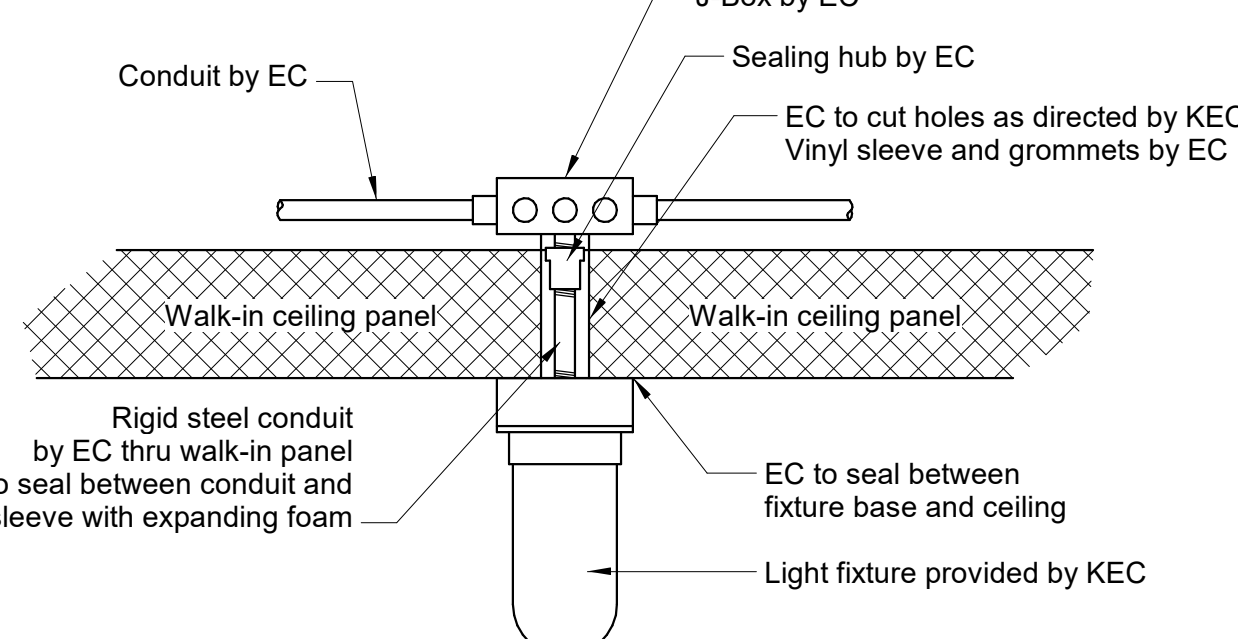
Typical Detail - Refrigerated Room Fire Sprinkler

NTS



Typical Detail - Refrigerated Room Light Fixture

NTS



- Notes:
1. All light fixture to be furnished by KEC
 2. Mounting light fixtures, all conduit and interwiring by EC
 3. All conduit to be on exterior of walk-in by EC
 4. All penetrations thru walk-in panels to be thoroughly sealed by EC

PLUMBING ROUGH-IN LEGEND	
	HOT WATER
	COLD WATER
	WASTE - DIRECT CONNECTED
	WASTE - INDIRECT
	GAS
	AREA FD (SUGGESTED LOCATION)
	FLOOR DRAIN
	FUNNEL FLOOR DRAIN
	FLOOR SINK
	FLOOR SINK (3/4 GRATE)
	FLOOR SINK (1/2 GRATE)
	FIELD CONNECTION
	FIELD PIPING (WASTE)
	FIELD PIPING (WATER)

ELECTRICAL ROUGH-IN LEGEND	
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE (TABLE MOUNTED)
	SIMPLEX RECEPTACLE
	SIMPLEX RECEPTACLE (TABLE MOUNTED)
	SPECIAL PURPOSE RECEPTACLE
	FLOOR RECEPTACLE
	JUNCTION BOX
	DROP CORD
	ELECTRICAL CONDUIT
	FIELD CONNECTION
	SWITCH
	LIGHT FIXTURE
	FIRE PULL STATION
	FIELD WIRING

Note E-D13

15 A circuit - 120/1 DFA for conn to ventilator control & hood lights at Item D12; Microwich wiring from fire suppression system (Item D14); EC to provide CAT5 connection to remote touch screen (Item D13a - cable supplied with system); EC to provide high voltage cores from VFD to EH4 fan; EC to provide wiring to temp sensors at hood; EC to provide wiring to room temp sensors (Item D13b); EC to provide wiring from building management system remote control

Note E-D13a

Double gang J-box in wall +48" for mounting ventilator control interface (provide conduit in wall for cable from above)

Note E-D13b

Temperature sensor wiring +60" from Item D13

Note E-E02

15 A circuit - 120/1 DFA for conn to ventilator control & hood lights at Item E04; Microwich wiring from fire suppression system (Item E03); EC to provide CAT5 connection to remote touch screen (Item E02a - cable supplied with system); EC to provide high voltage cores from VFD to EH4 fan; EC to provide wiring to temp sensors at hood; EC to provide wiring from building management system remote control

Note E-E02a

Double gang J-box in wall +48" for mounting ventilator control interface (provide conduit in wall for cable from above)

Note E-F19

15 A circuit - 120/1 DFA for conn to ventilator control & hood lights at Items F13, F14, F16 & F17; Microwich wiring from fire suppression system (Item F18); EC to provide CAT5 connection to remote touch screen (Item F19a - cable supplied with system); EC to provide high voltage cores from VFD to EH4 fan; EC to provide wiring to temp sensors at hood; EC to provide wiring to room temp sensors (Item F19b); EC to provide wiring from building management system remote control

PLUMBING NOTES

- 1) DIMENSIONS ON THIS PLAN ARE PROVIDED FOR DESIGN INTENT. IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND HEIGHTS LISTED IN THE FIELD WITH THE EQUIPMENT BEING PROVIDED.
- 2) PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL FINAL CONNECTIONS TO EQUIPMENT THAT REQUIRE A BRANCH TO CONNECTION (BTC), OR WHERE PLUMBING INTERCONNECTION IS INDICATED ON THE PLAN WITH A DASHED LINE.
- 3) PLUMBING CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL MANUFACTURER'S SHOP DRAWINGS AND EQUIPMENT CUT SHEETS SUBMITTED TO CONFIRM SCOPE REQUIREMENTS AND INSTALLATION EXPECTATIONS.
- 4) ALL FLOOR SINKS AND DRAINS MUST BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR. AREA DRAINS, IF LOCATED LOCATED ON THESE PLANS, ARE TO BE CONSIDERED RECOMMENDED AREAS. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO CONFIRM QUANTITIES AND LOCATIONS OF AREA DRAINS WITH THE LOCAL AUTHORITY HAVING JURISDICTION.
- 5) FLOOR SINKS LOCATED UNDER COUNTERS WITH LIMITED ACCESSIBILITY MUST BE INSTALLED 50% EXPOSED AND EASILY ACCESSIBLE FOR CLEANING. IF A FLOOR SINK CAN NOT BE INSTALLED 50% EXPOSED, THE UNDER SHELF OF THE CABINET MUST BE FULLY REMOVABLE OR BE PROVIDED WITH AN ACCESS PANEL LARGE ENOUGH TO REMOVE THE DRAIN GRATE FOR CLEANING.
- 6) CONDENSATE DRAIN LINES FROM WALK-IN REFRIGERATED ROOM EVAPORATOR COILS SHALL BE INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR. DRAIN LINES MUST BE COPPER AND INSTALLED 1" OFF THE WALLS WITH A MINIMUM PITCH OF 1/2" PER FOOT. KITCHEN EQUIPMENT CONTRACTOR TO PROVIDE AND INSTALL A COPPER UNION WITHIN 24" OF THE CONNECTION TO THE EVAPORATOR COIL. FOR INSTALLATION OF DRAIN LINES IN A FREEZER, THE DRAIN SHALL EXIT THE FREEZER AT THE EARLIEST DISTANCE POSSIBLE. DRAIN PENETRATIONS THROUGH THE WALK-IN REFRIGERATED ROOM WALL PANEL MUST BE APPROPRIATELY SEALED TO INCLUDE A VAPOR SEAL AND PROVIDED WITH CHROME EXCUTTER PLATES AT ALL EXPOSED POINTS WHERE PIPING PENETRATES THE WALL. DRAINS MUST BE "P" TRAPPED OUTSIDE OF THE REFRIGERATED ROOM WALL TO AVOID ENTRANCE OF WARM AIR AND TERMINATED 1" ABOVE THE FLOOR DRAIN OR AS REQUIRED BY LOCAL CODE.
- 7) PLUMBING CONTRACTOR TO INSTALL UTILITIES CONCEALED IN WALLS AND SUB-OUT AT TERMINATION POINTS. PLEASE NOTE THAT NOT ALL JURISDICTIONS ALLOW GAS LINES TO BE CONCEALED IN WALL. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO VERIFY AND CONFIRM PRIOR TO INSTALLATION.
- 8) PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL DRAINS, FAUCETS, PIPING TRAPS, VALVES, SHUT-OFFS, GAUGES, WATER PRESSURE REDUCERS, REGULATORS AND BACKFLOW PREVENTION, ETC. AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
- 9) IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO FLUSH ALL WATER LINES PRIOR TO FINAL CONNECTION TO FOODSERVICE EQUIPMENT.
- 10) A MAIN SHUT-OFF GAS VALVE MUST BE INSTALLED BY THE PLUMBING CONTRACTOR LOCATED TO MEET THE REQUIREMENTS OF THE PLUMBING CODE.
- 11) GAS SUPPLY TO ALL COOKING EQUIPMENT MUST BE PROVIDED WITH AN ELECTRIC OR MECHANICAL SHUT-OFF VALVE. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH THE VALVE AND INSTALLATION PERFORMED BY THE PLUMBING CONTRACTOR. VALVE SHALL BE TIED INTO THE FIRE PROTECTION SYSTEM FOR AUTOMATIC SHUT-OFF.
- 12) THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR LOCATION OF GREASE TRAPS AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. GREASE TRAPS MUST BE LOCATED IN A MANNER THAT DOES NOT INTERFERE WITH FOODSERVICE EQUIPMENT LAYOUT.

Abbreviations used:

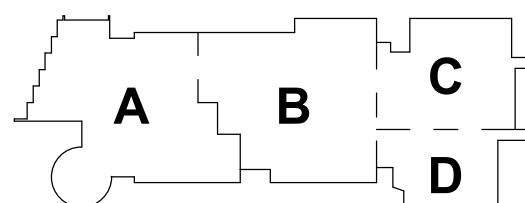
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BTF	Below finished floor	FDD	Funnel floor drain	KW	Kilowatt
BTC	Branch to connection	FW	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	HW	Hot water	SS	Steam supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Water (direct connection)

ELECTRICAL NOTES

- 1) DIMENSIONS ON THIS PLAN ARE PROVIDED FOR DESIGN INTENT. IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND HEIGHTS LISTED IN THE FIELD WITH THE EQUIPMENT BEING PROVIDED.
- 2) ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL FINAL CONNECTIONS TO EQUIPMENT THAT REQUIRES A BRANCH TO CONNECTION (BTC), OR WHERE INTER-WIRING IS INDICATED ON THE PLAN IN A DASHED LINE.
- 3) ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL MANUFACTURER'S SHOP DRAWINGS AND EQUIPMENT CUT SHEETS SUBMITTED TO CONFIRM SCOPE REQUIREMENTS AND INSTALLATION EXPECTATIONS.
- 4) ELECTRICAL PANELS PROVIDED SHALL BE DESIGNED WITH A MINIMUM OF 20% SPARE CAPACITY FOR FUTURE EXPANSION UNLESS OTHERWISE APPROVED BY THE OWNER.
- 5) ELECTRICAL CONTRACTOR TO INSTALL DROP CORDS AS LOCATED ON PLANS WITH THE CORD ADJUSTED TO HANG 78" ABOVE FINISH FLOOR. PLASTIC WIRE TIES ARE NOT ACCEPTABLE FOR THIS WORK. DROP CORDS MUST BE PROVIDED WITH STRAIN RELIEF.
- 6) ELECTRICAL CONNECTIONS ON THIS PLAN ARE PROVIDED AS IT RELATES SPECIFICALLY TO FOODSERVICE EQUIPMENT. CONVENIENCE OUTLETS ARE PROVIDED IN SPECIFIC LOCATIONS AS REQUESTED BY OWNER. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ANY OTHER ELECTRICAL OUTLETS AS REQUIRED TO MEET CODE REQUIREMENTS BY LOCAL AUTHORITY HAVING JURISDICTION.
- 7) WALK-IN REFRIGERATED ROOM LIGHT FIXTURES ARE TO BE PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR. LIGHTS ARE TO BE MOUNTED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- 8) IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO CONFIRM WITH THE WALK-IN REFRIGERATED ROOM MANUFACTURER THAT THE QUANTITY AND LOCATIONS OF THE LIGHTING LAYOUT WILL MEET 20 FOOT CANDLES OF LIGHT AT A DISTANCE OF 30" ABOVE FINISH FLOOR AS REQUIRED IN WALK-IN REFRIGERATED ROOMS BY THE NATIONAL FOOD CODE.
- 9) DRAIN PIPING WITHIN A WALK-IN FREEZER SHALL BE PROVIDED WITH A DRAIN LINE HEATER AND INSULATION. FINAL CONNECTION OF THE DRAIN LINE HEATER MUST BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- 10) ELECTRICAL CONTRACTOR TO INSTALL UTILITIES CONCEALED IN WALLS AND SUB-OUT AT TERMINATION POINTS.
- 11) ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WIRING BETWEEN EXHAUST VENTILATORS, AND ASSOCIATED FAN SYSTEMS, CONTROL PANELS, MAGNETIC STARTERS, FIRE SUPPRESSION SYSTEMS, PULL STATIONS AND SWITCHES AS REQUIRED.
- 12) CONTROL AND POWER WIRING BETWEEN CONTROL PANELS AND GARBAGE DISPOSALS, WASTE PULPERS, TROUGH COLLECTORS ETC. ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- 13) ELECTRICAL CONTRACTOR MUST PROVIDE ELECTRICAL POWER TO ANY COOKING EQUIPMENT THROUGH A SHUNT TRIP SYSTEM.
- 14) FOOD PREPARATION AREAS MUST BE PROVIDED WITH 50 FOOT CANDLES OF LIGHTING AS REQUIRED BY THE NATIONAL FOOD CODE.
- 15) ELECTRICAL CONTRACTOR MUST VERIFY REMOTE FIRE SUPPRESSION PULL STATION LOCATIONS WITH THE LOCAL FIRE INSPECTOR PRIOR TO INSTALLATION.
- 16) FOODSERVICE EQUIPMENT CAN NOT BLOCK ACCESS TO GFI RECEPTACLES. CRABTREE-McGRATH ASSOCIATES STRONGLY RECOMMENDS THAT THE ELECTRICAL CONTRACTOR PROVIDE GFI PROTECTION AT THE CIRCUIT BREAKER PANEL. THIS WILL ALSO LIMIT NUISANCE TRIPPING THAT IS COMMON WITH COMMERCIAL FOODSERVICE EQUIPMENT.

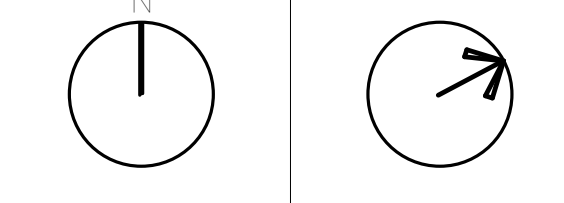
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May 12th, 2023



PROJECT NORTH

MAGNETIC NORTH



CULINARY KITCHEN
FOODSERVICE
EQUIPMENT ROUGH-IN
PLAN

Scale: As indicated
Job No.: 20202
Drawn By: RM
Date: May 12th, 2023

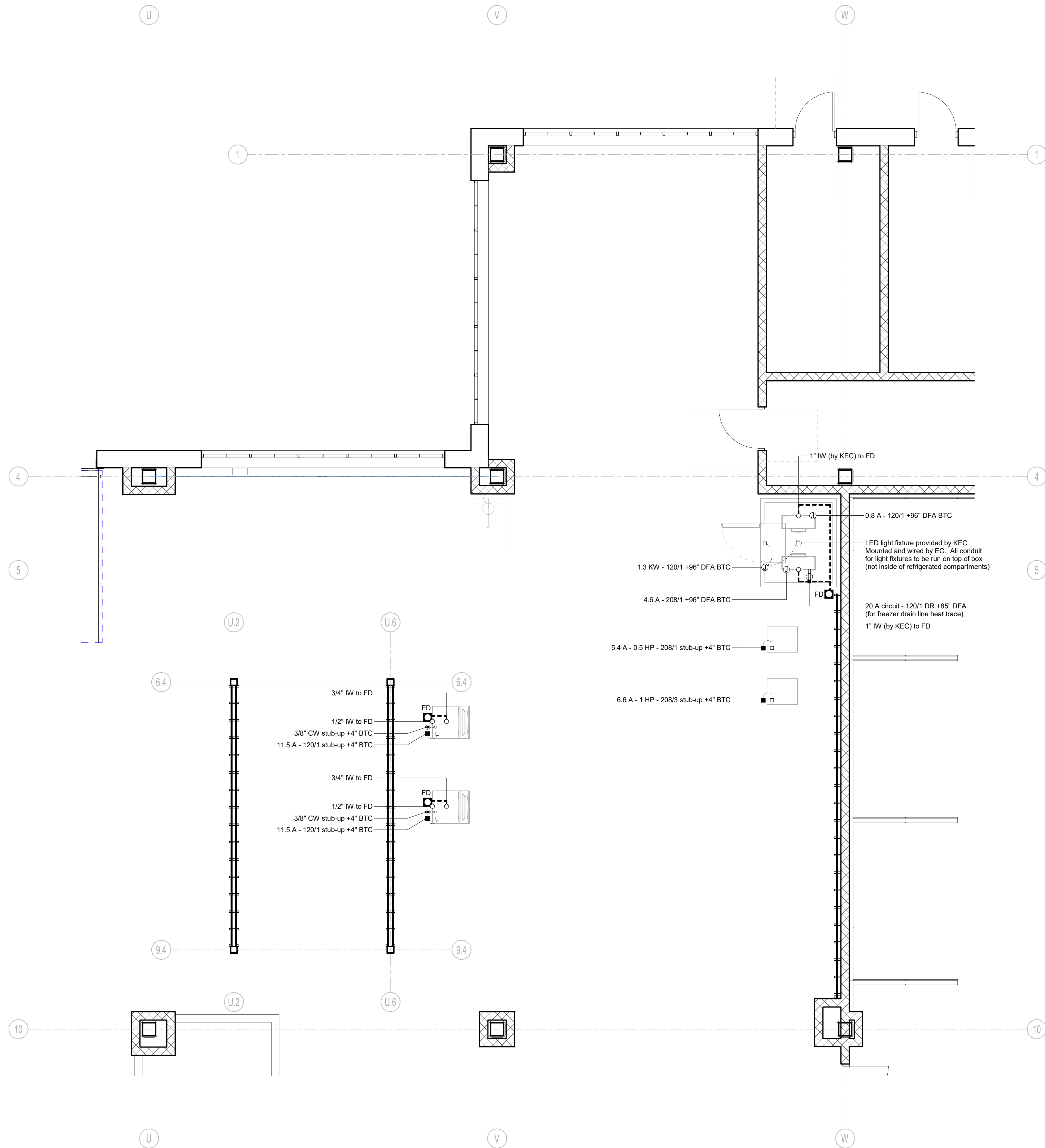
FS2-3-1

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HVAC TECH - FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"

PLUMBING ROUGH-IN LEGEND	
●	HOT WATER
●	COLD WATER
●	WASTE - DIRECT CONNECTED
○	WASTE - INDIRECT
●	GAS
⊗	AREA FD (SUGGESTED LOCATION)
⊠	FLOOR DRAIN
⊠	FUNNEL FLOOR DRAIN
⊠	FLOOR SINK
⊠	FLOOR SINK (3/4 GRATE)
⊠	FLOOR SINK (1/2 GRATE)
○	FIELD CONNECTION
—	FIELD PIPING (WASTE)
----	FIELD PIPING (WATER)

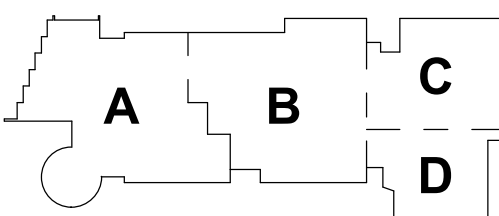
ELECTRICAL ROUGH-IN LEGEND	
⬢	DUPLEX RECEPTACLE
⬢	DUPLEX RECEPTACLE (TABLE MOUNTED)
⬢	SIMPLEX RECEPTACLE
⬢	SIMPLEX RECEPTACLE (TABLE MOUNTED)
⬢	SPECIAL PURPOSE RECEPTACLE
⬢	FLOOR RECEPTACLE
⬢	JUNCTION BOX
⬢	DROP CORD
⬢	ELECTRICAL CONDUIT
⬢	FIELD CONNECTION
⬢	SWITCH
⬢	LIGHT FIXTURE
⬢	FIRE PULL STATION
⬢	FIELD WIRING

Abbreviations used:			
A	Amperes	EXH	Exhaust
AFF	Above finished floor	FD	Floor drain
BFF	Below finished floor	FDD	Funnel floor drain
BTC	Branch to connection	FHW	Fahrenheit hot water
C&P	Cord & plug provided	FS	Floor sink
CFM	Cubic feet per minute	G	Gas
CR	Condensate return	GC	General Contractor
CW	Cold water	GI	Grease interceptor
DFA	Drop from above	HP	Horsepower
DR	Duplex receptacle	IHW	Hot water
EC	Electrical contractor	H&CW	Hot & cold water
		IW	Indirect waste
		KEC	Kitchen Equip. Contractor
		KW	Kilowatt
		MBTU	BTU per hour/1000
		MUA	Make-up air
		PC	Plumbing Contractor
		QD	Quick disconnect
		SP	Static pressure (WG)
		SR	Single receptacle
		SS	Scum supply
		W	Waste (direct connection)

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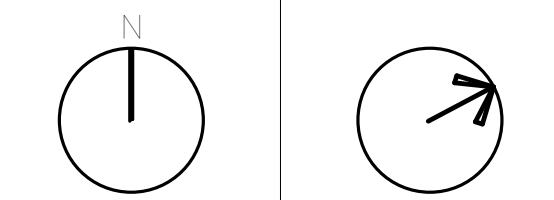
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May 12th, 2023



KEY PLAN

PROJECT NORTH MAGNETIC NORTH



HVAC TECH
FOODSERVICE
EQUIPMENT ROUGH-IN
PLAN

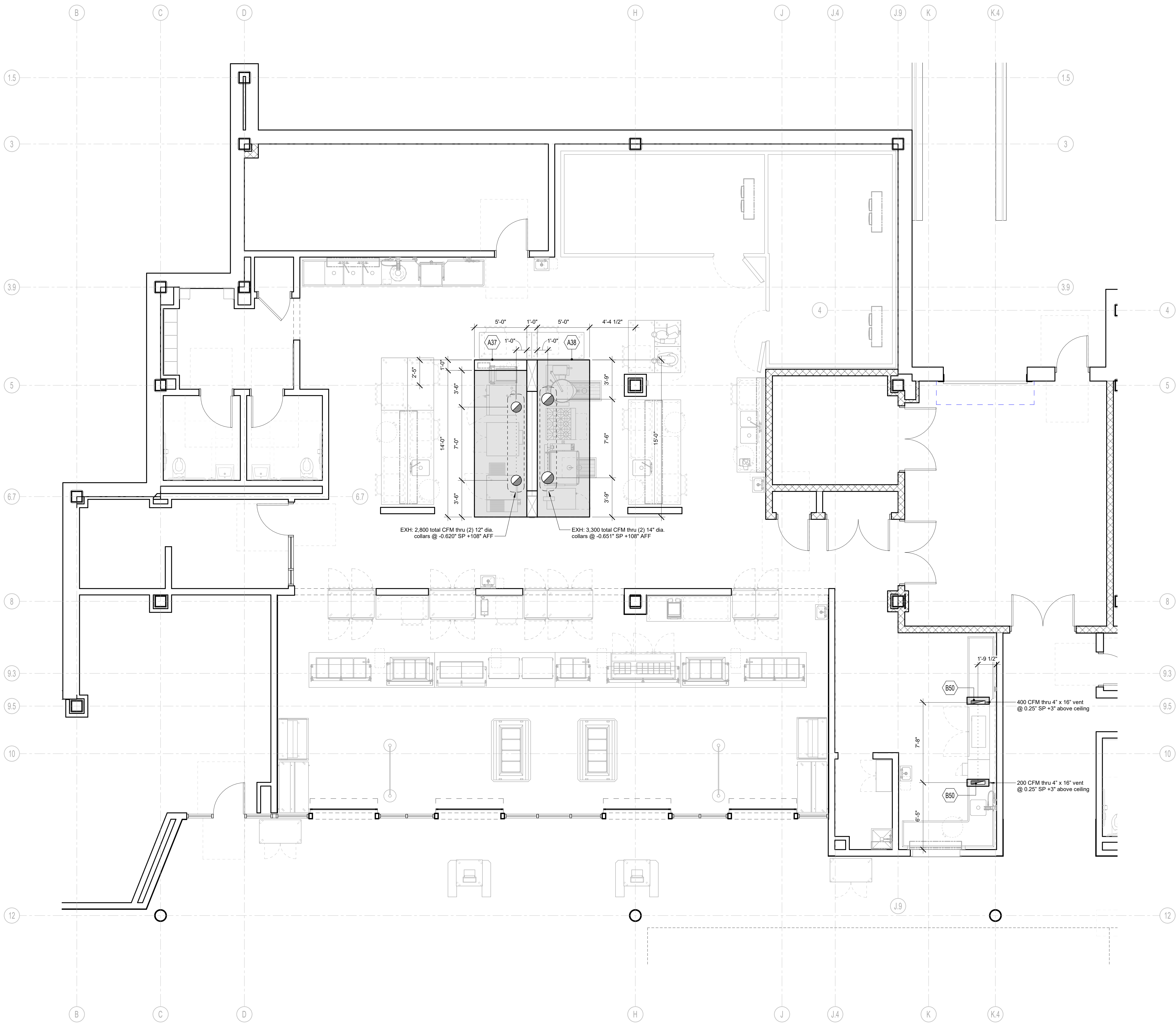
Scale: 1/4" = 1'-0"

Job No.: 20202

Drawn By: RM

Date: May 12th, 2023

FS2-4-1



MAIN KITCHEN - FOODSERVICE EQUIPMENT VENTILATION ROUGH-IN PLAN
1/4" = 1'-0"



Abbreviations used:					
A	Ampere	EXH	Exhaust	IW	Indirect waste
AFF	Above finished floor	FD	Floor drain	KEC	Kitchen Equip. Contractor
BFF	Below finished floor	FFD	Finned floor drain	KW	Kilowatt
BTC	Branch to connection	FHW	Fahrenheit hot water	MBTU	BTU per hour/1000
C&P	Cord & plug provided	FS	Floor sink	MUA	Make-up air
CFM	Cubic feet per minute	G	Gas	PC	Plumbing Contractor
CR	Condensate return	GC	General Contractor	QD	Quick disconnect
CW	Cold water	GI	Grease interceptor	SP	Static pressure (WG)
DFA	Drop from above	HP	Horsepower	SR	Single receptacle
DR	Duplex receptacle	HW	Hot water	SS	Steam supply
EC	Electrical contractor	H&CW	Hot & cold water	W	Waste (direct connection)

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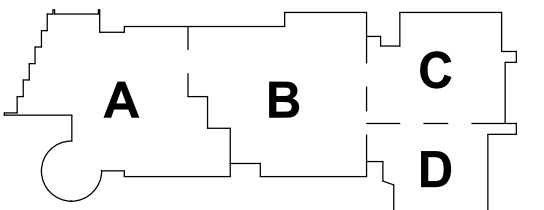
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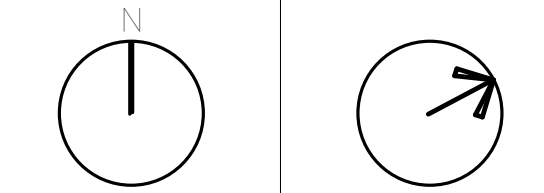
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May 12th, 2023



KEY PLAN

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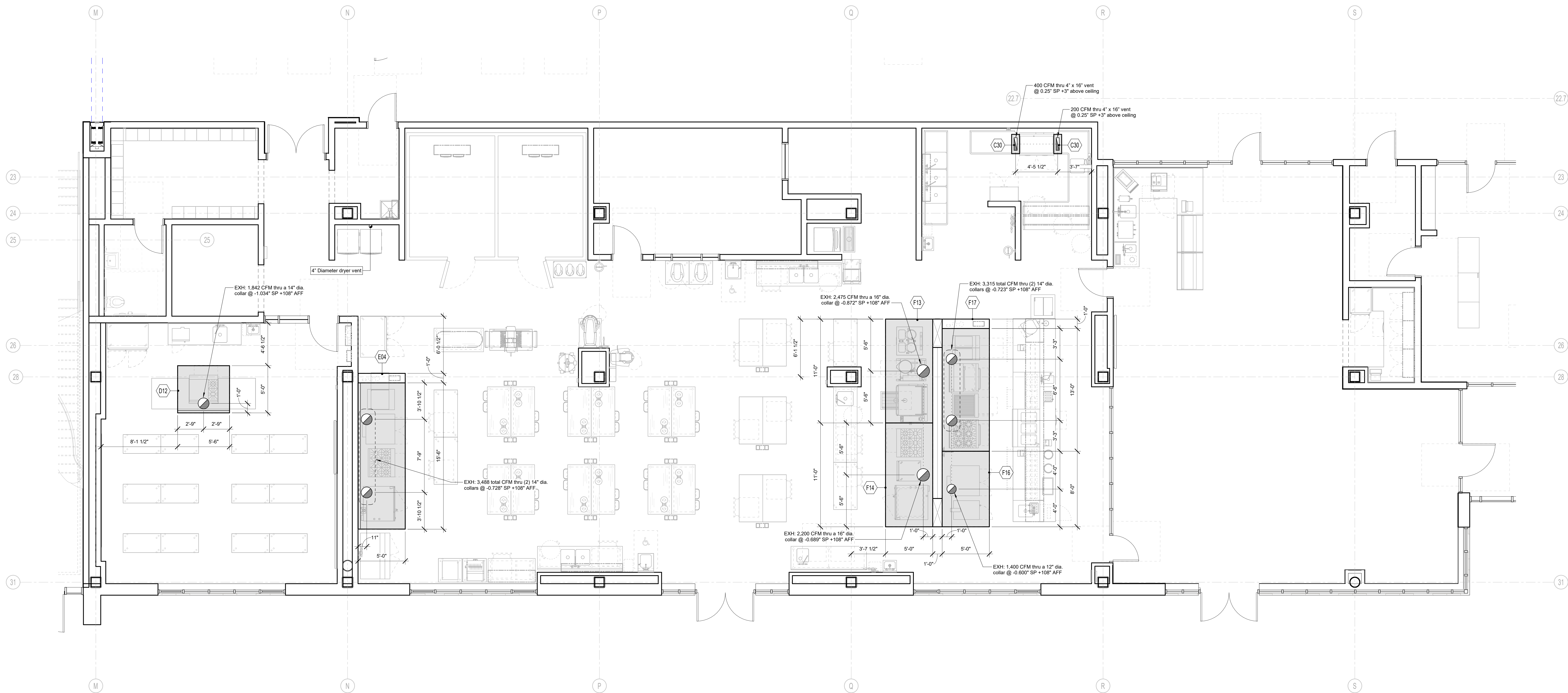
MAGNETIC NORTH



MAIN KITCHEN
FOODSERVICE
EQUIPMENT
VENTILATION
ROUGH-IN PLAN

Scale: 1/4" = 1'-0"
Job No.: 20202
Drawn By: RM
Date: May 12th, 2023

FS3-2-1



CULINARY KITCHEN - FOODSERVICE EQUIPMENT VENTILATION ROUGH-IN PLAN
1/4" = 1'-0"



Abbreviations used:			
A	Amperes	EXH	Exhaust
AFF	Above finished floor	FD	Floor drain
BFF	Below finished floor	FTD	Floor floor drain
BTC	Branch to connection	FHW	Fahrenheit hot water
C&P	Cord & plug provided	FS	Floor sink
CFM	Cubic feet per minute	G	Gas
CR	Condensate return	GC	General Contractor
CW	Cold water	GI	Grease interceptor
DFA	Drop from above	HP	Horsepower
DR	Duplex receptacle	HW	Hot water
EC	Electrical contractor	H&CW	Hot & cold water
		IW	Indirect waste
		KEC	Kitchen Equip. Contractor
		KW	Kilowatt
		MBTU	BTU per hour/1000
		MUA	Make-up air
		PC	Plumbing Contractor
		QD	Quick disconnect
		SP	Static pressure (WG)
		SR	Single receptacle
		SS	Sicam supply
		W	Waste (direct connection)

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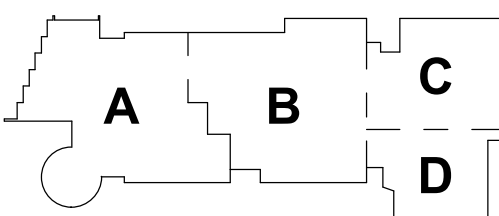
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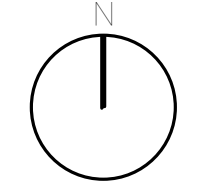
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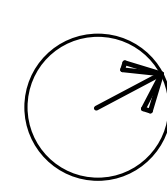


KEY PLAN

PROJECT NORTH



MAGNETIC NORTH



CULINARY KITCHEN
FOODSERVICE
EQUIPMENT
VENTILATION
ROUGH-IN PLAN

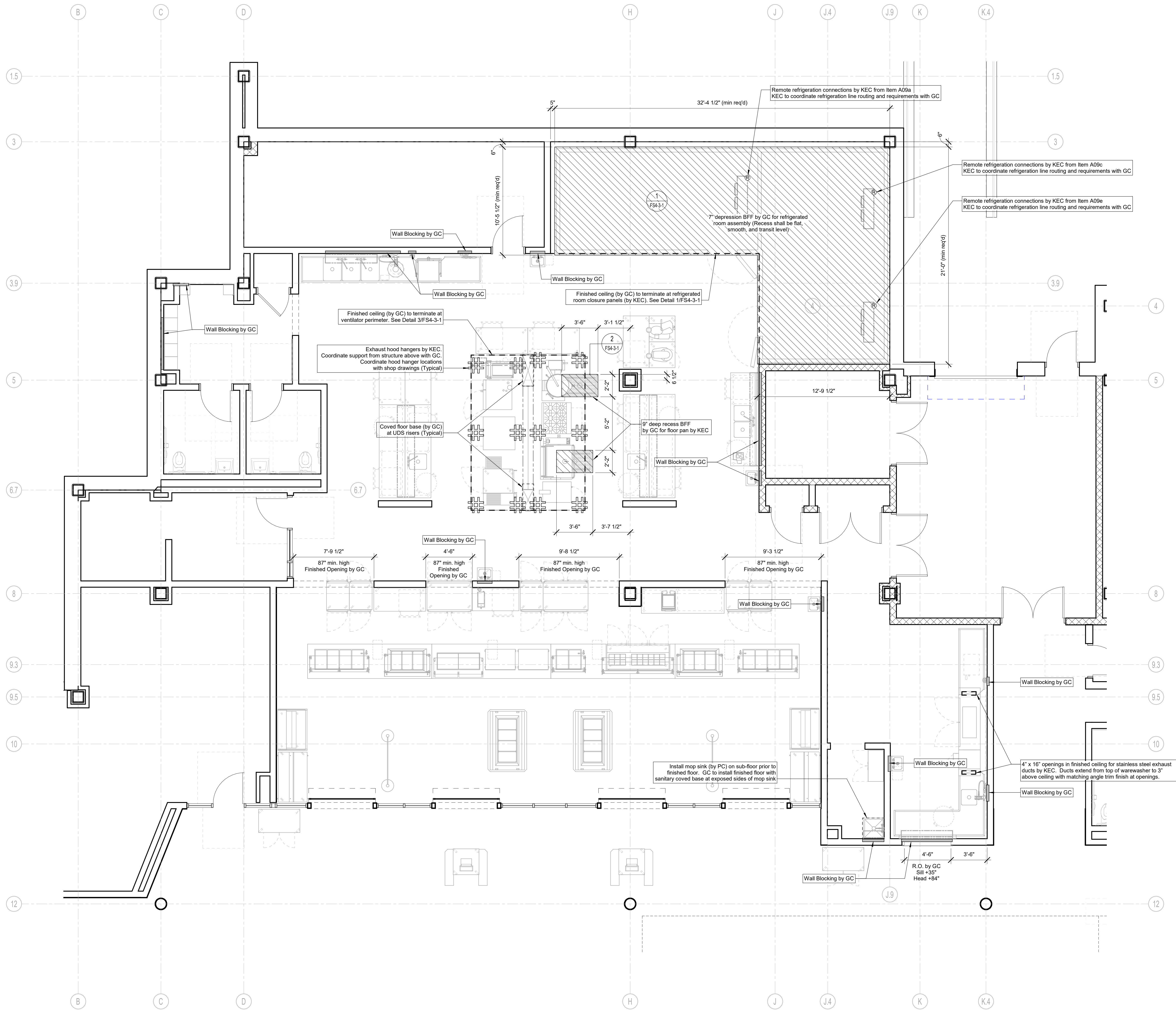
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Job No.: 20202

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Date: May 12th, 2023

FS3-3-1



MAIN KITCHEN - FOODSERVICE EQUIPMENT BUILDING CONDITIONS PLAN
1/4" = 1'-0"



Abbreviations used:			
A	Amperes	EXH	Exhaust
AF	Above finished floor	FD	Floor drain
BFF	Below finished floor	FD	Floor drain
BTC	Branch to connection	FD	Floor drain
C&P	Cord & plug provided	FS	Floor sink
CFM	Cubic feet per minute	G	Gas
CR	Condensate return	GC	General Contractor
CW	Cold water	GI	Grease interceptor
DFA	Drop from above	HP	Horsepower
DR	Duplex receptacle	IW	Indirect waste
EC	Electrical contractor	H&CW	Hot & cold water
		KEC	Kitchen Equip. Contractor
		KW	Kilowatt
		MBTU	BTU per hour/1000
		MUA	Make-up air
		PC	Plumbing Contractor
		QD	Quick disconnect
		SP	Static pressure (WG)
		SR	Single receptacle
		SS	Steam supply
		W	Waste (direct connection)

SPECIAL CONDITIONS NOTES

- DIMENSIONS ON THIS PLAN ARE PROVIDED FOR DESIGN INTENT. IT IS THE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND HEIGHTS LISTED IN THE FIELD WITH THE EQUIPMENT BEING PROVIDED.
- WALK-IN REFRIGERATED ROOM SLAB DEPRESSIONS MUST BE SMOOTH AND LEVEL, SIZED AS SHOWN ON PLAN.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING WALL BLOCKING AS INDICATED FOR SUPPORTING WALL MOUNTED EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY AND COORDINATE ALL LOCATIONS AND HEIGHTS PROVIDED IN THE FIELD.
- WALL FLASHING, WHERE SPECIFIED, MUST BE A MINIMUM OF 20 GAUGE STAINLESS STEEL PROVIDED AND INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR. STAINLESS STEEL TO BE CUT IN THE LARGEST SHEETS POSSIBLE TO MINIMIZE JOINTS. ALL SEAMS TO BE COVERED WITH BATTEN STRIPS AND CAP STRIPS PROVIDED AT FLASHING ENDS. PROVIDE CAREFULLY PUNCHED HOLES AT SERVICE LOCATIONS. ALL WALL FLASHING DIMENSIONS MUST BE FIELD VERIFIED BY THE KITCHEN EQUIPMENT CONTRACTOR PRIOR TO FABRICATION.
- CORNER GUARDS, WHERE SPECIFIED, MUST BE A MINIMUM OF 14 GAUGE STAINLESS STEEL PROVIDED AND INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR. BREAK LONG EDGES SO THAT THE GUARDS "HUG" THE WALL AND SECURE TO THE WALL WITH A SUITABLE ADHESIVE. ALL CORNER GUARD DIMENSIONS AND ANGLES MUST BE FIELD VERIFIED BY THE KITCHEN EQUIPMENT CONTRACTOR PRIOR TO FABRICATION.
- KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE REMOTE REFRIGERATION LINE RUNS AND COORDINATION OF THE COMPLETE REMOTE REFRIGERATION SYSTEM WITH THE GENERAL CONTRACTOR.
- EXHAUST HOODS MUST BE HUNG AND MOUNTED WITH THE BOTTOM OF THE HOOD AT 6'-0" ABOVE FINISH FLOOR. HVAC CONTRACTOR IS RESPONSIBLE FOR FINAL CONNECTIONS FROM THE EXHAUST HOOD COLLAR TO THE DUCTWORK. FINAL CONNECTIONS SHALL BE FULLY WELDED AND LIQUID TIGHT.
- HVAC CONTRACTOR TO PROVIDE AND INSTALL ALL FANS, DUCTWORK AND CURBS AS REQUIRED FOR A COMPLETE AND FUNCTIONING VENTILATION SYSTEM. START-UP AND AIR BALANCING OF THESE SYSTEMS MUST BE COMPLETED BY THE HVAC CONTRACTOR.

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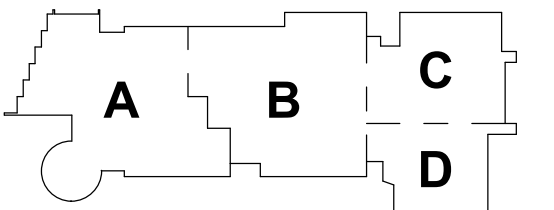
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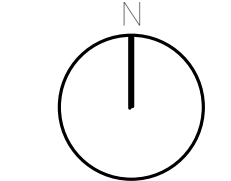
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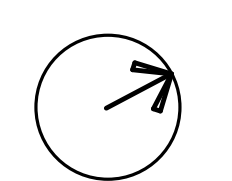


KEY PLAN

PROJECT NORTH



MAGNETIC NORTH



MAIN KITCHEN
FOODSERVICE
EQUIPMENT BUILDING
CONDITIONS PLAN

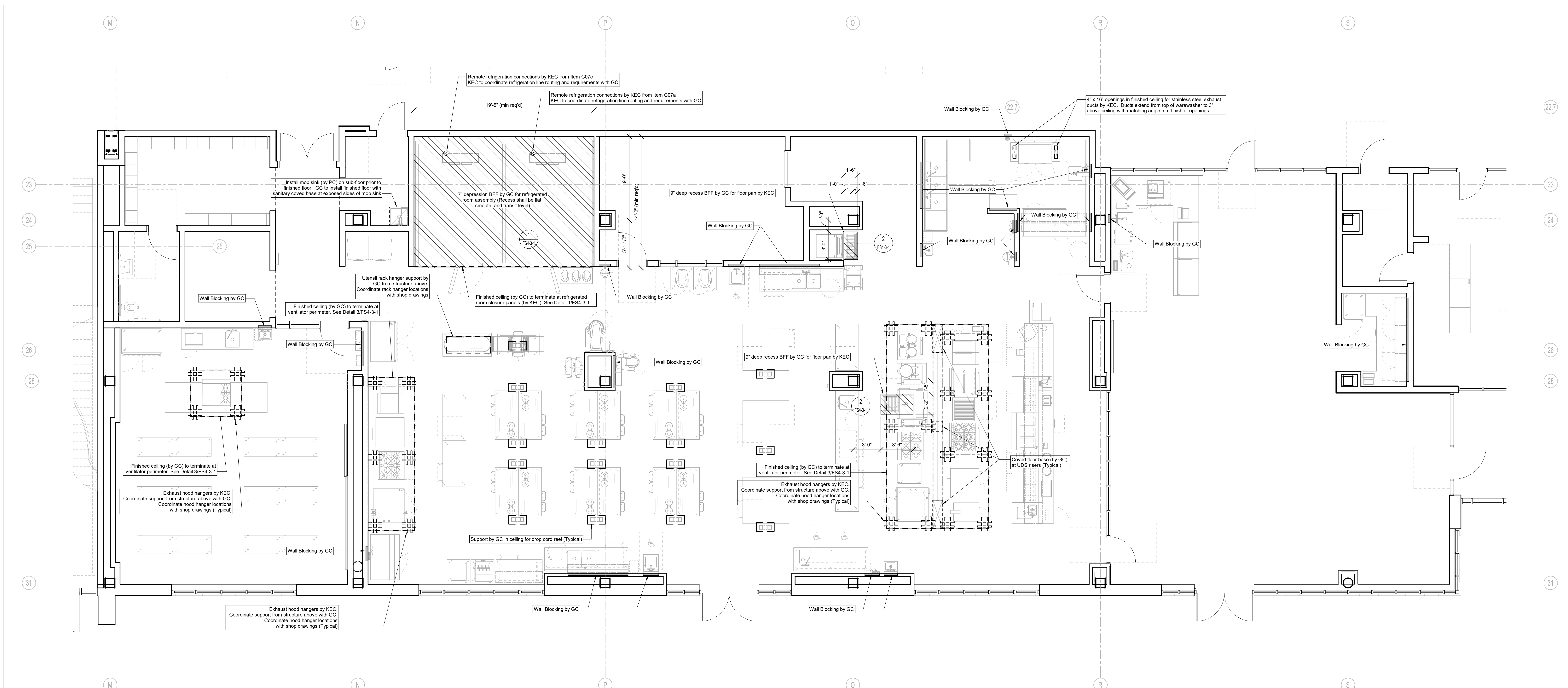
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Job No.: 20202

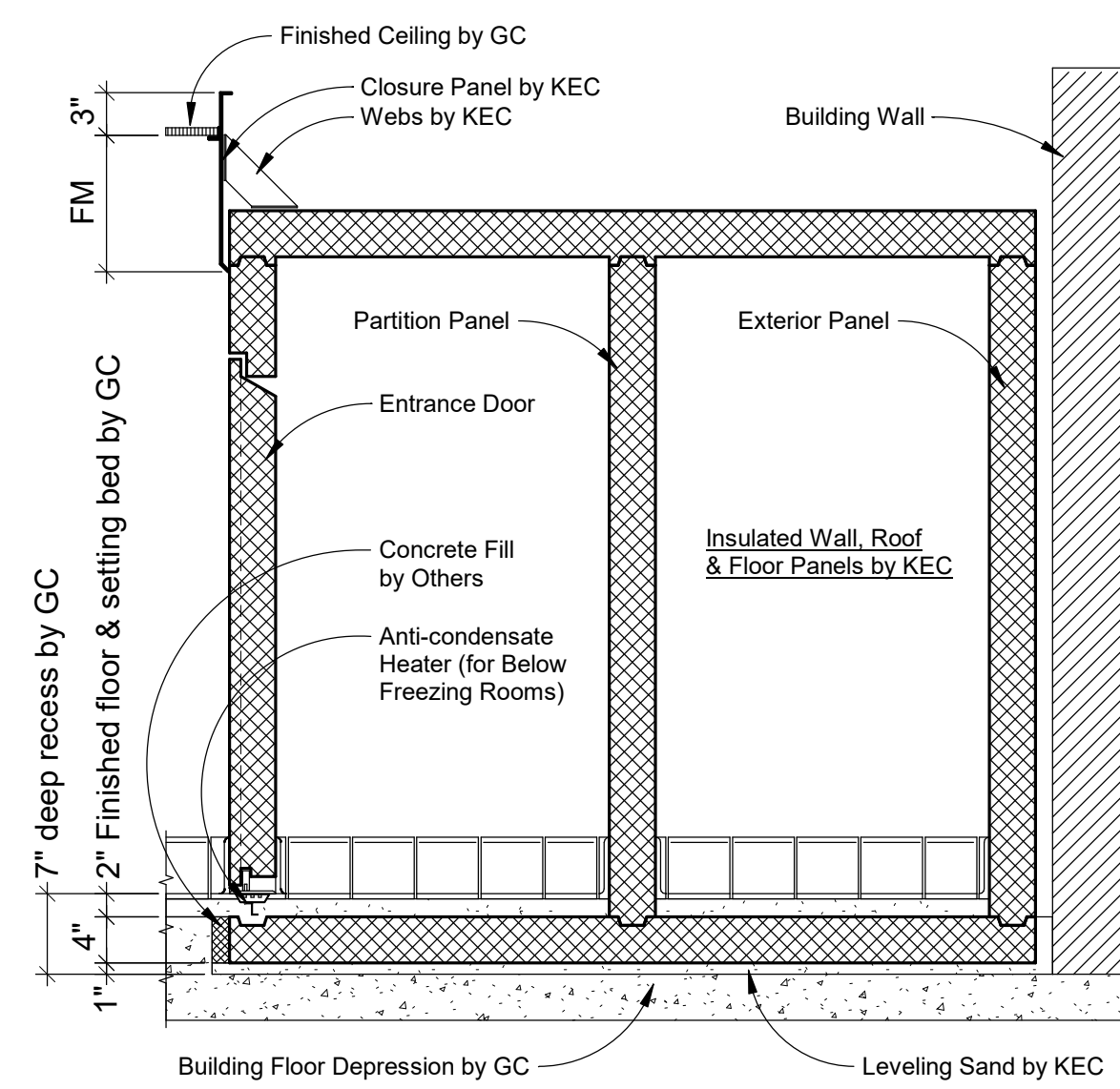
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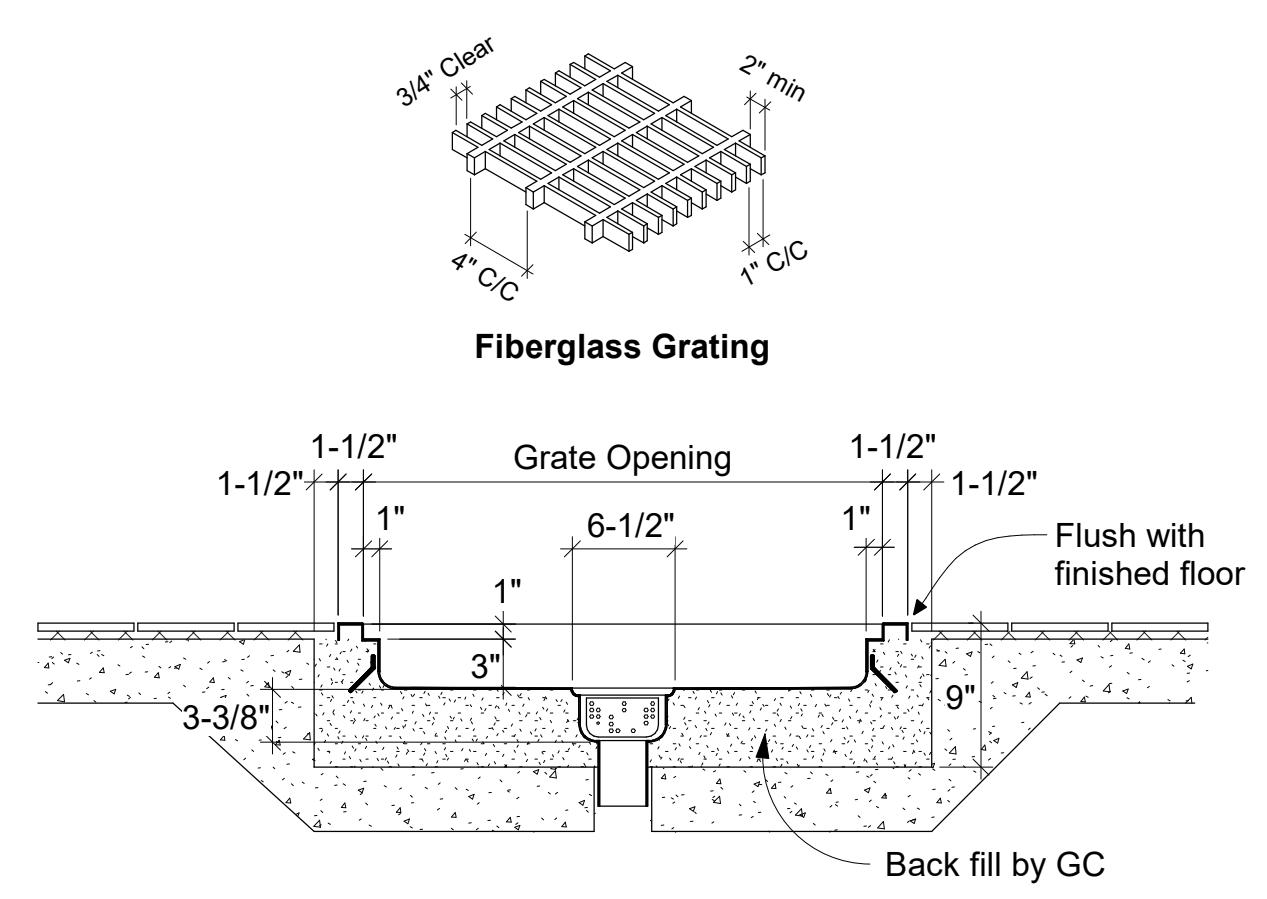
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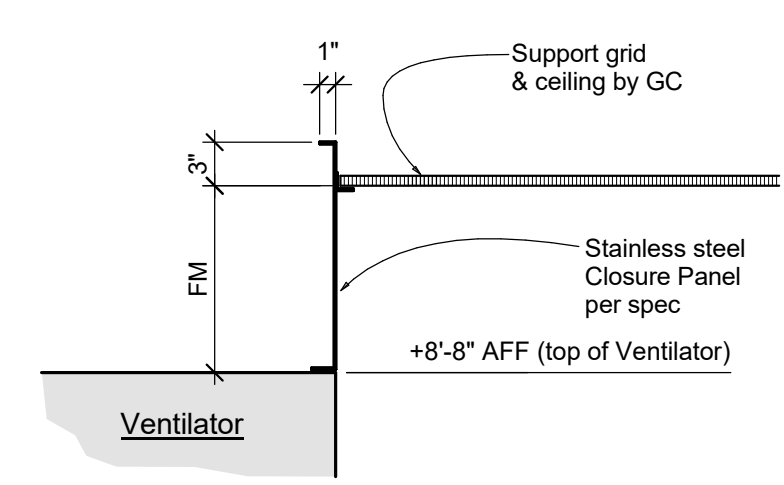
CULINARY KITCHEN - FOODSERVICE EQUIPMENT BUILDING CONDITIONS PLAN
1/4" = 1'-0"



1 Detail - Refrigerated Rooms
NTS



2 Section - Floor Pan & Grate
NTS



3 Detail - Ceiling Closure Panel
NTS



Abbreviations used:			
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IW	Indirect waste	KEC	Kitchen Equip. Contractor
K	Kilowatt	KBW	Kilowatt
MBTU	BTU per hour/1000	MUA	Make-up air
PC	Plumbing Contractor	PC	Plumbing Contractor
QD	Quick disconnect	QD	Quick disconnect
SP	Static pressure (WG)	SR	Single receptacle
SS	Steam supply	SS	Steam supply
W	Waste (direct connection)	W	Waste (direct connection)

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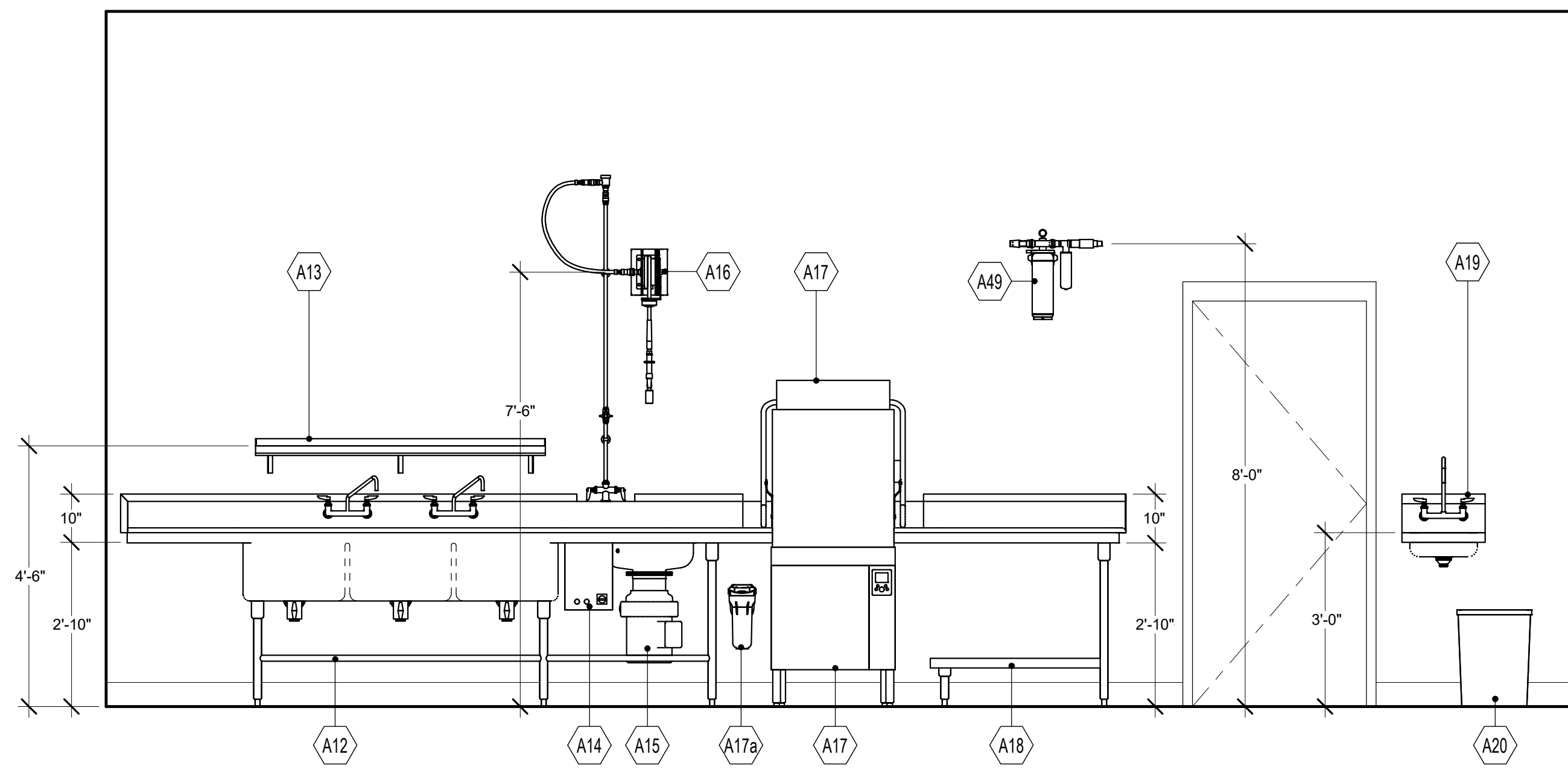
KEY PLAN

PROJECT NORTH
MAGNETIC NORTH

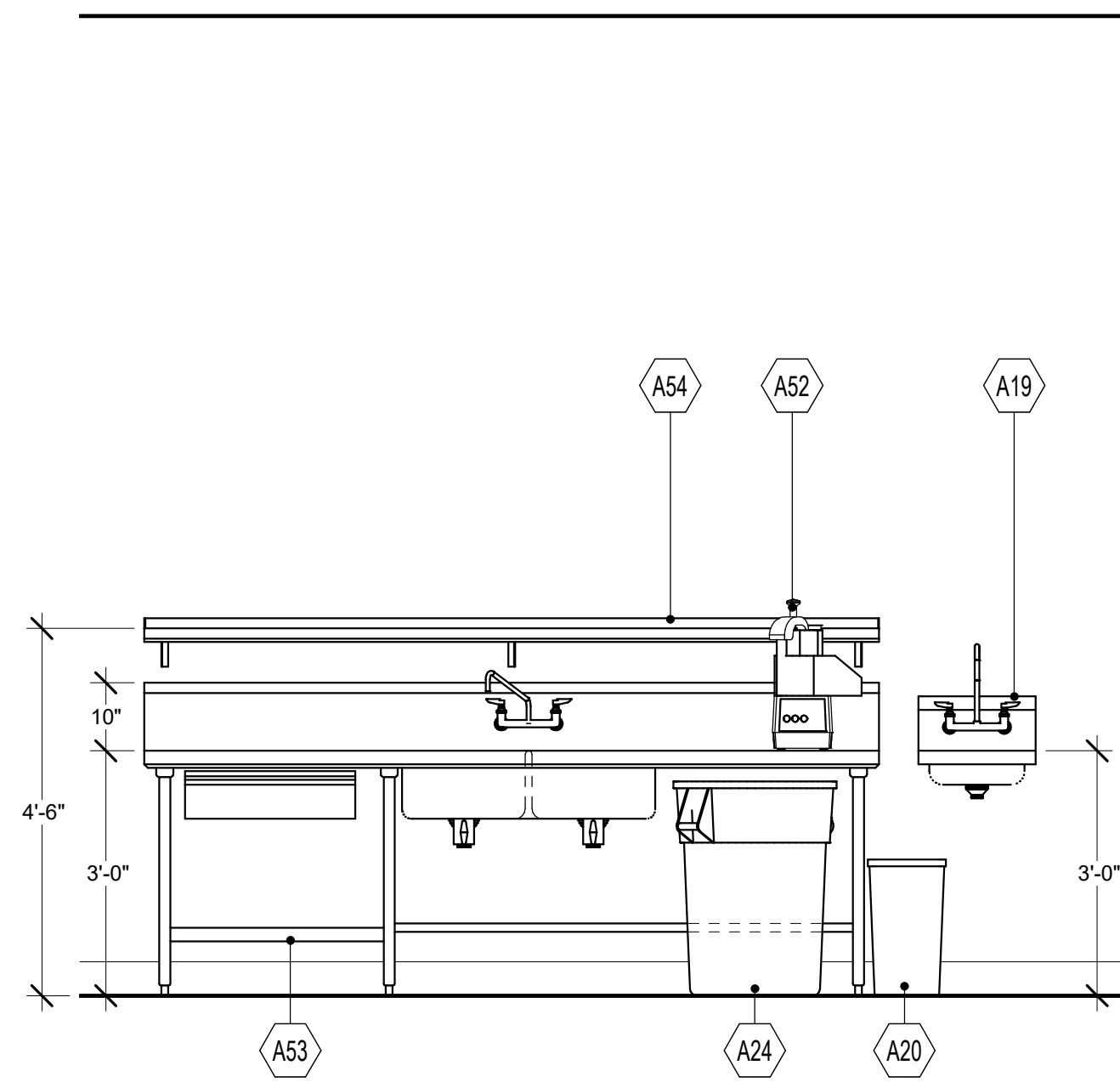
CULINARY KITCHEN
FOODSERVICE
EQUIPMENT BUILDING
CONDITIONS PLAN

Scale: As indicated
Job No.: 20202
Drawn By: RM
Date: May 12th, 2023

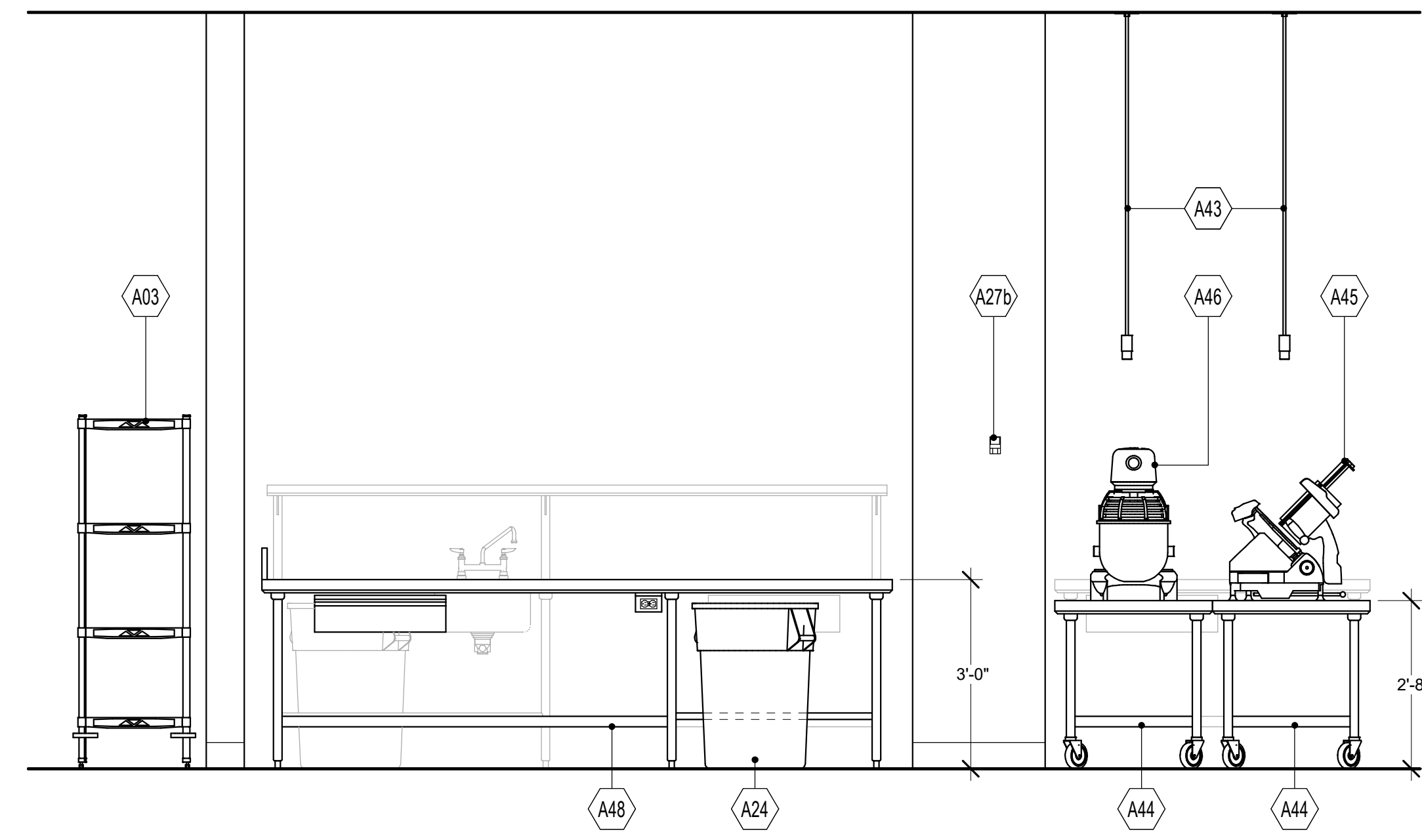
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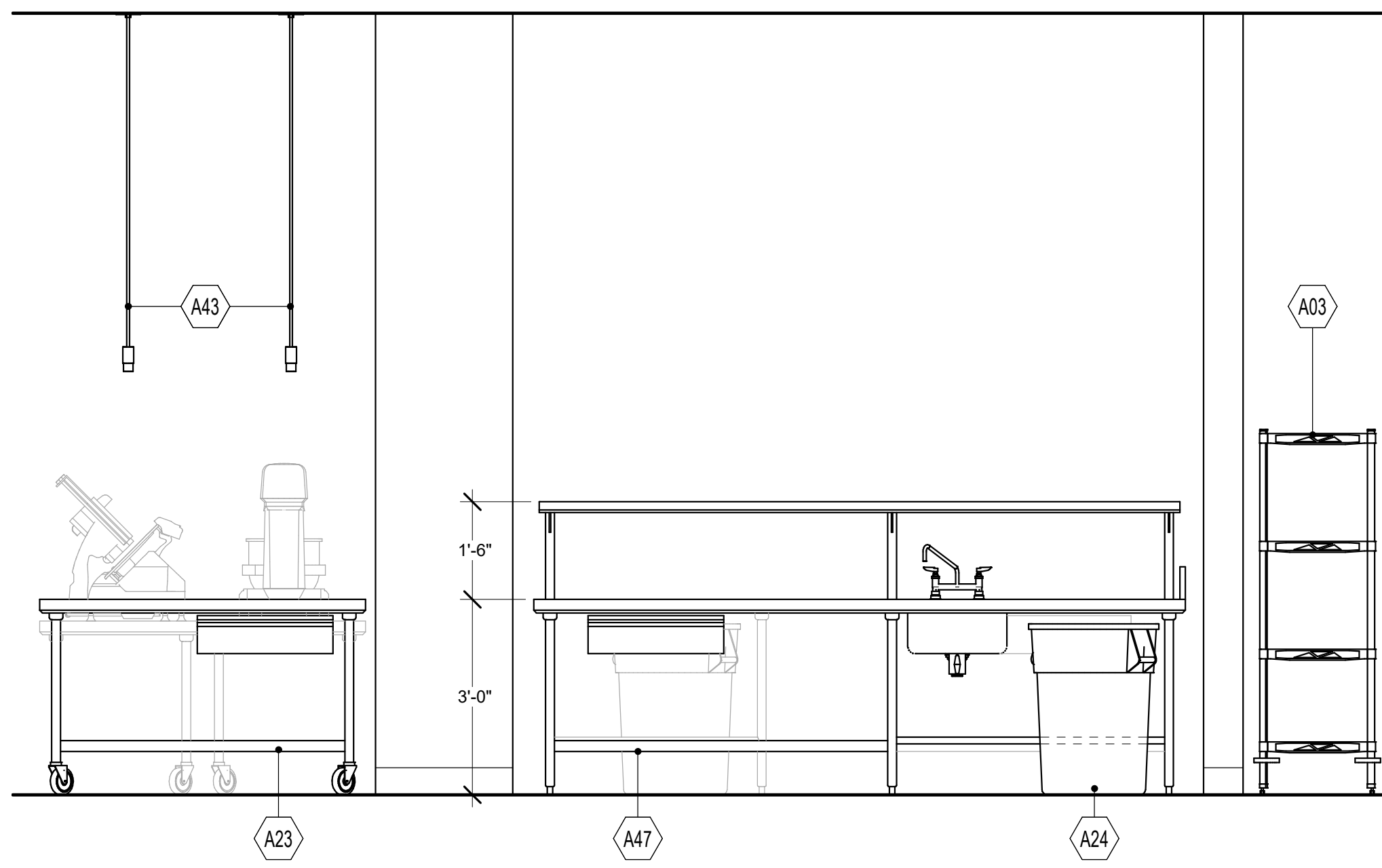
1 Elevation - Utensil Washing
FS5-1-1 1/2" = 1'-0"



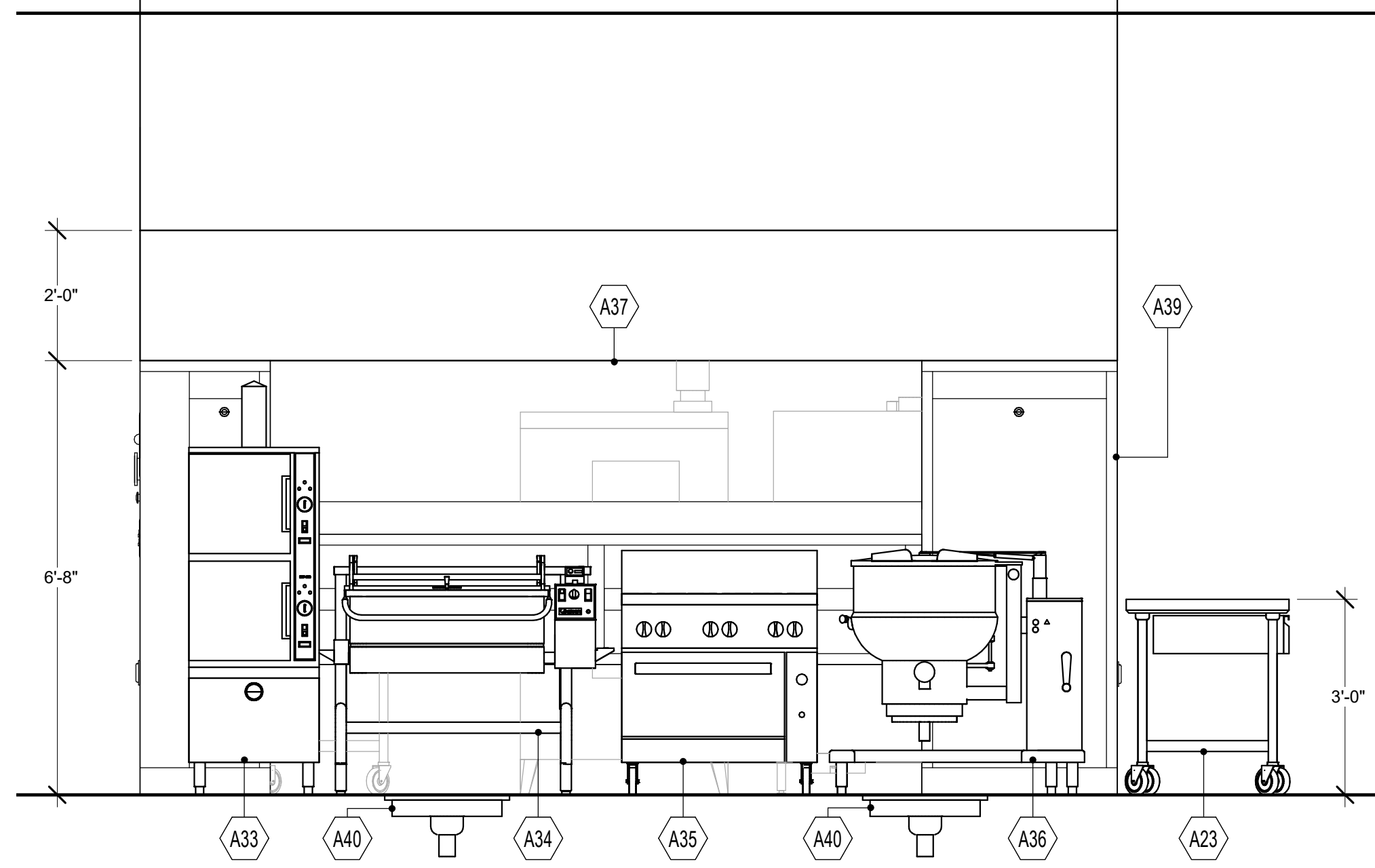
2 Elevation - Prep Table
FS5-1-1 1/2" = 1'-0"



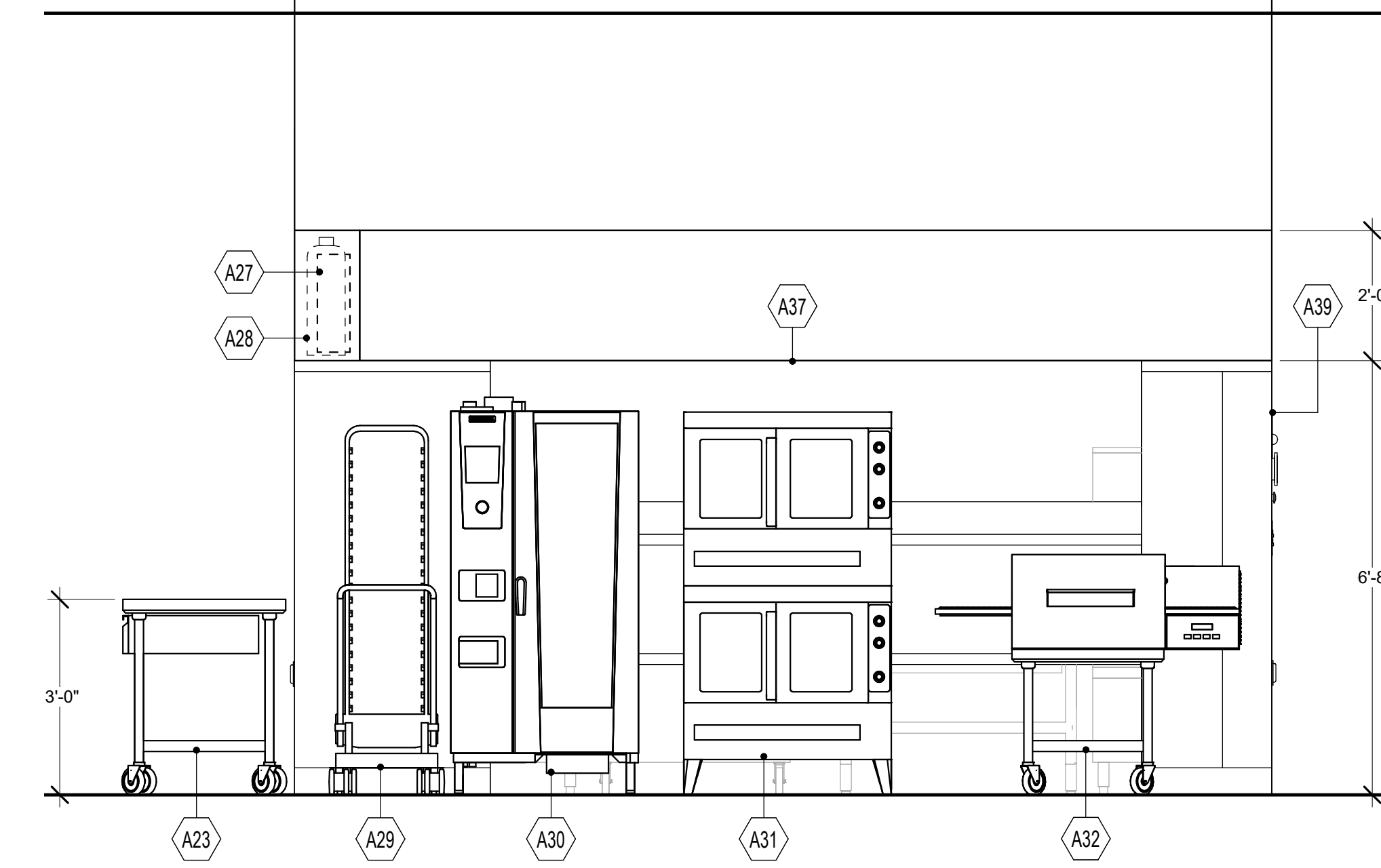
3 Elevation - Work Table and Mobile Equipment Stands
FS5-1-1 1/2" = 1'-0"



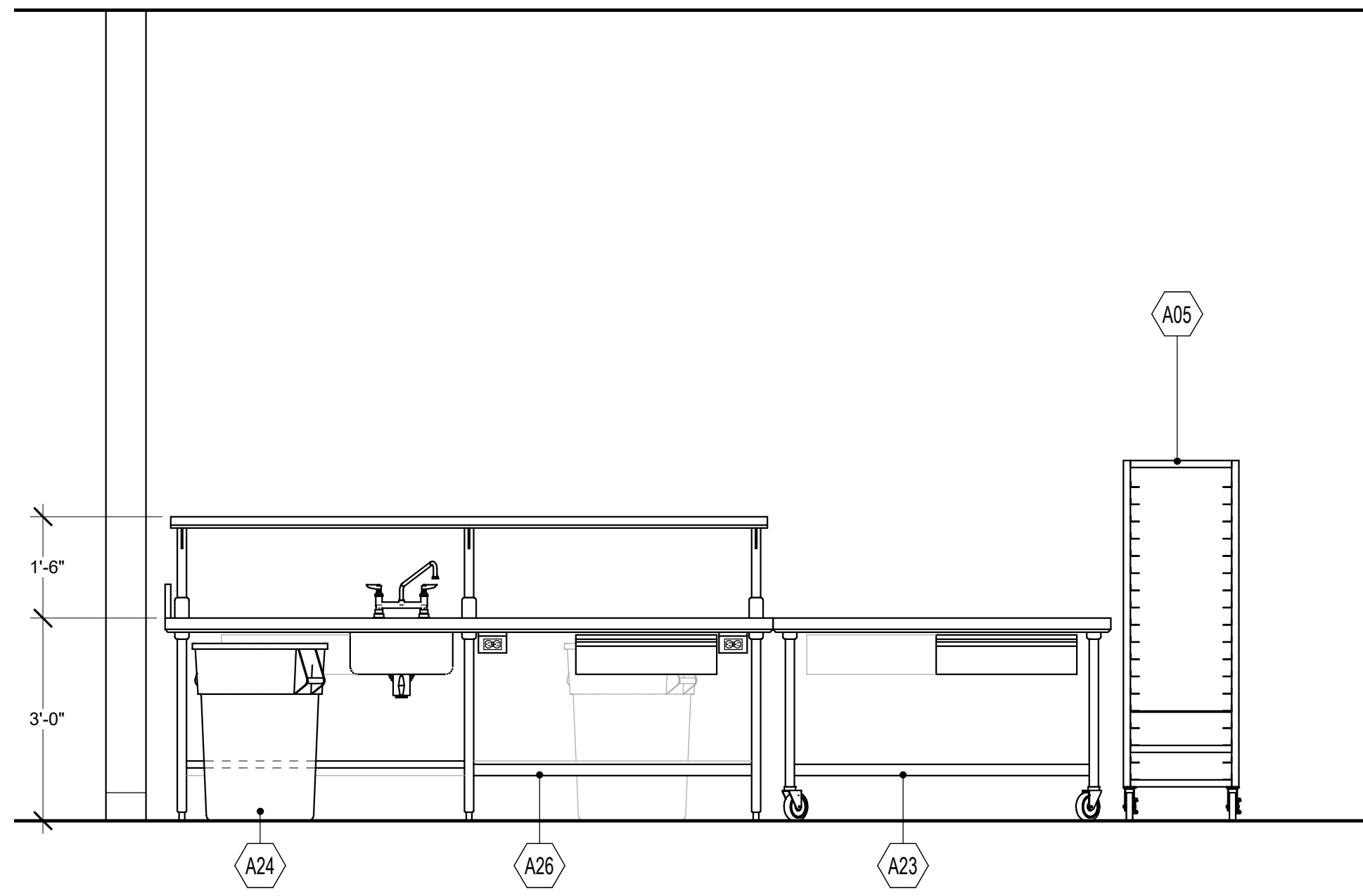
4 Elevation - Cook's Work Table
FS5-1-1 1/2" = 1'-0"



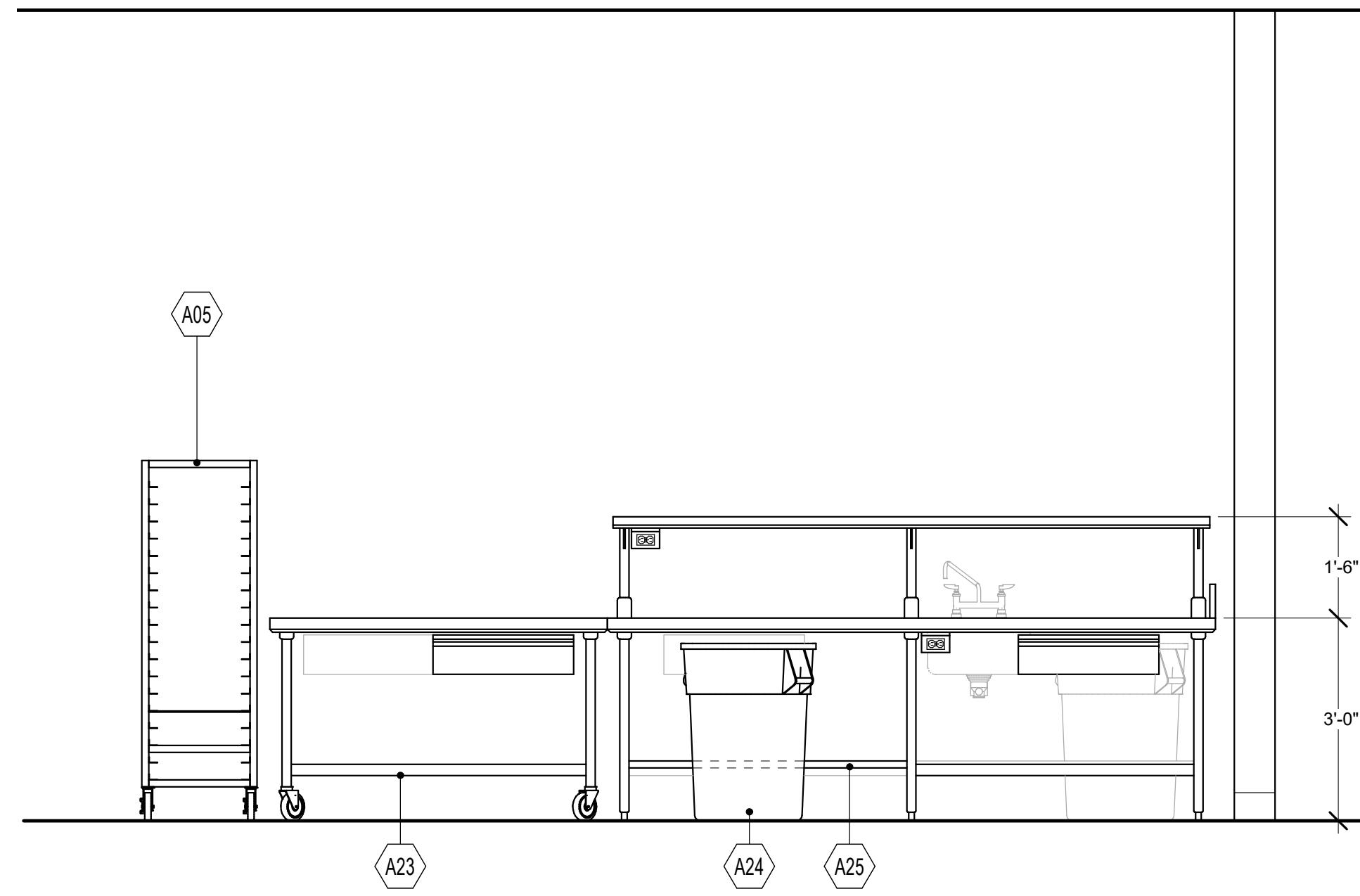
5 Elevation - Main Kitchen Cooking
FS5-1-1 1/2" = 1'-0"



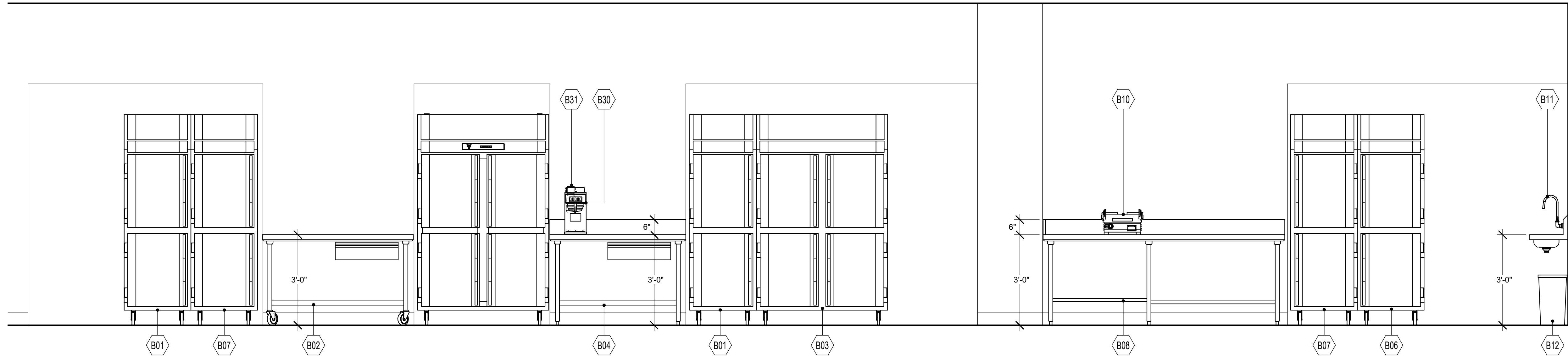
6 Elevation - Main Kitchen Cooking
FS5-1-1 1/2" = 1'-0"



7 Elevation - Cook's Work Tables
FS5-1-1 1/2" = 1'-0"



8 Elevation - Work Tables
FS5-1-1 1/2" = 1'-0"



9 Elevation - Servery Support
FS5-1-1 1/2" = 1'-0"

DRA

Drumme Rosane Anderson, Inc.
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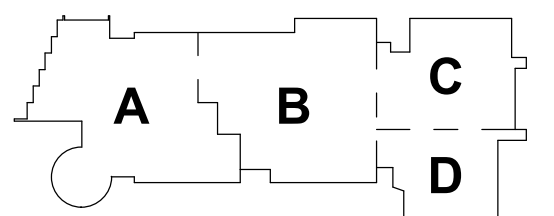
Northeast
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Regional
Vocational High School

100 Hemlock Road,
Wakefield, MA 01880

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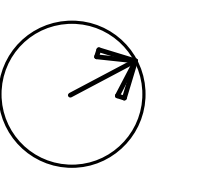
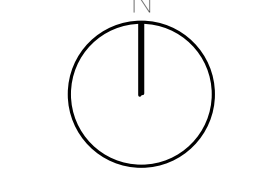
May 12th, 2023



KEY PLAN

PROJECT NORTH

MAGNETIC NORTH



FOODSERVICE
EQUIPMENT
ELEVATIONS

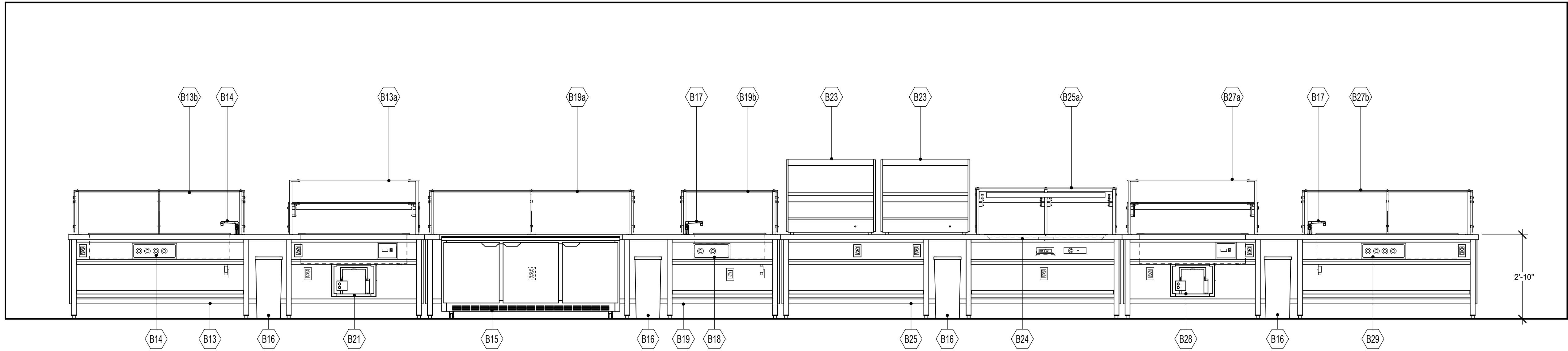
Scale: 1/2" = 1'-0"

Job No.: 20202

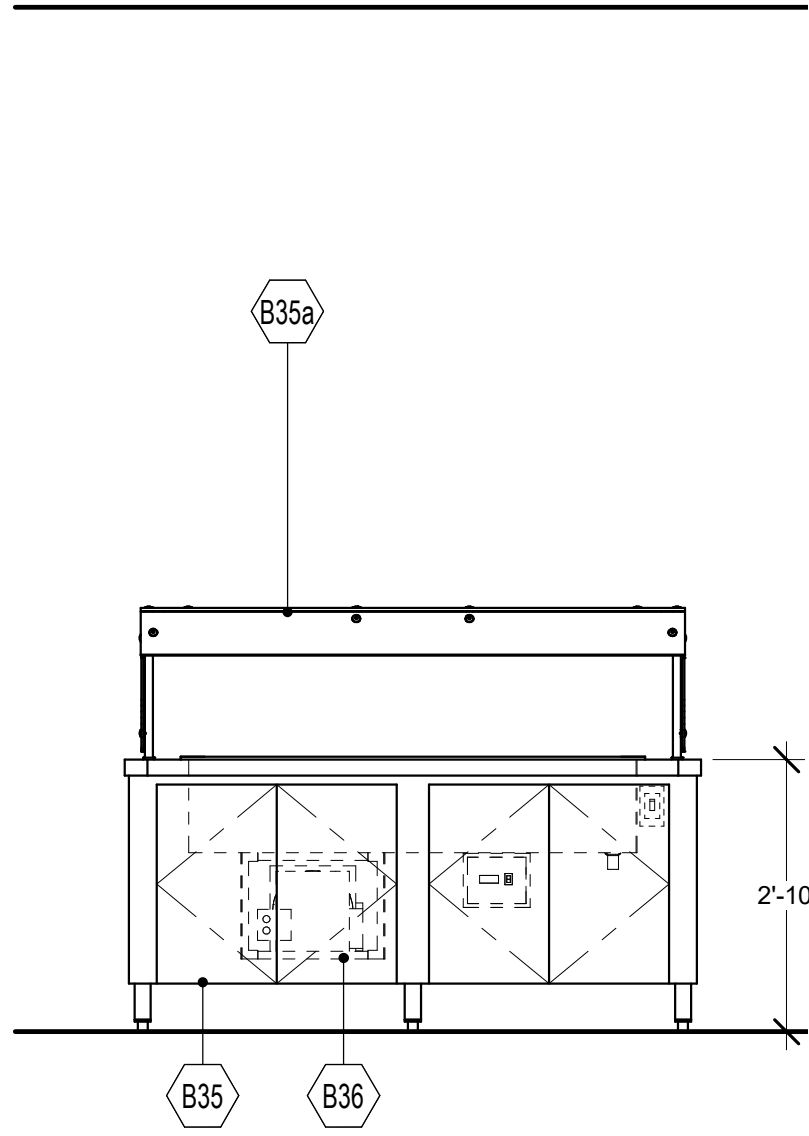
Drawn By: RM

Date: May 12th, 2023

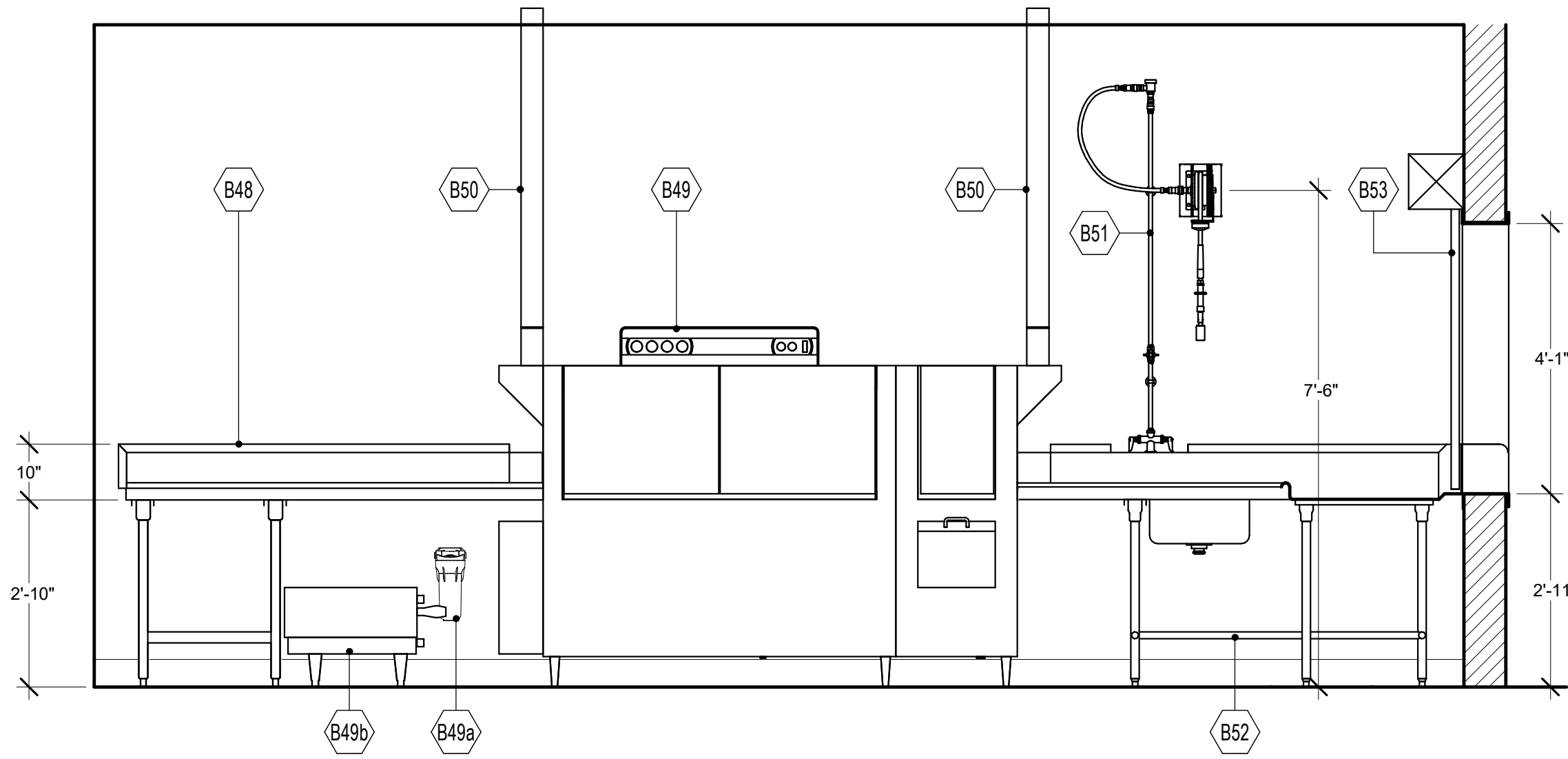
FS5-1-1



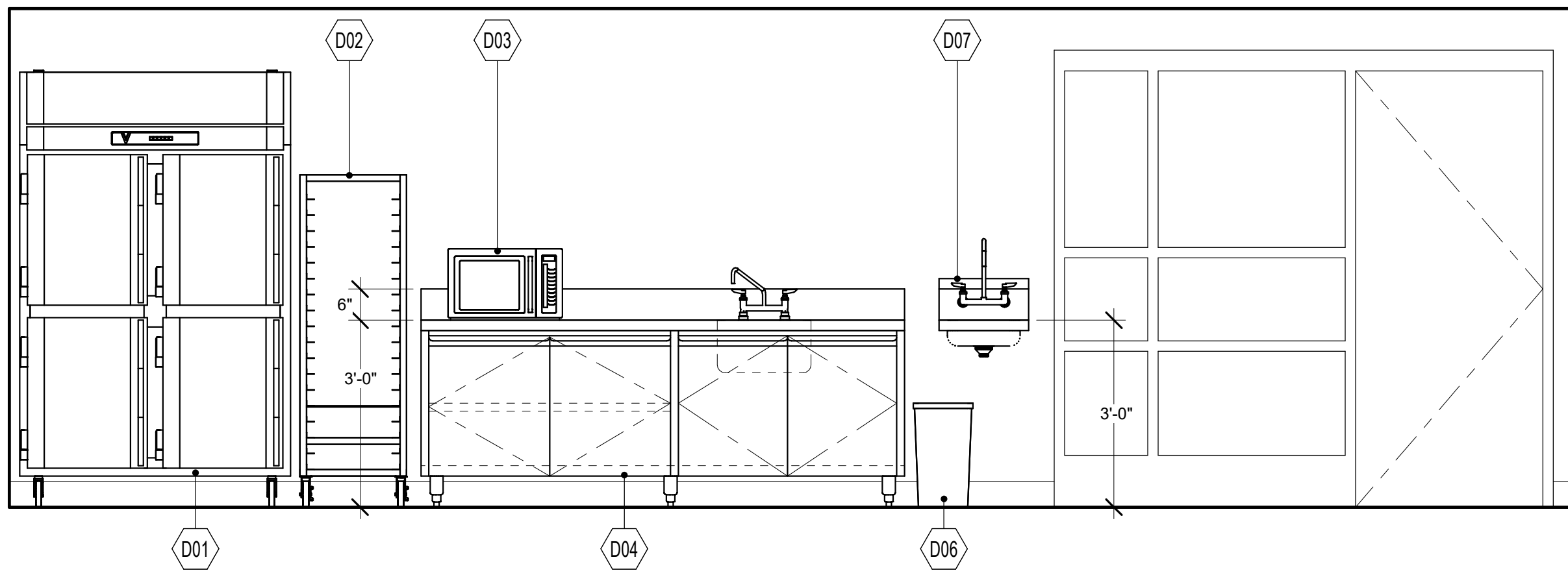
1 Elevation - Serving Counters
FS5-1-2 1/2" = 1'-0"



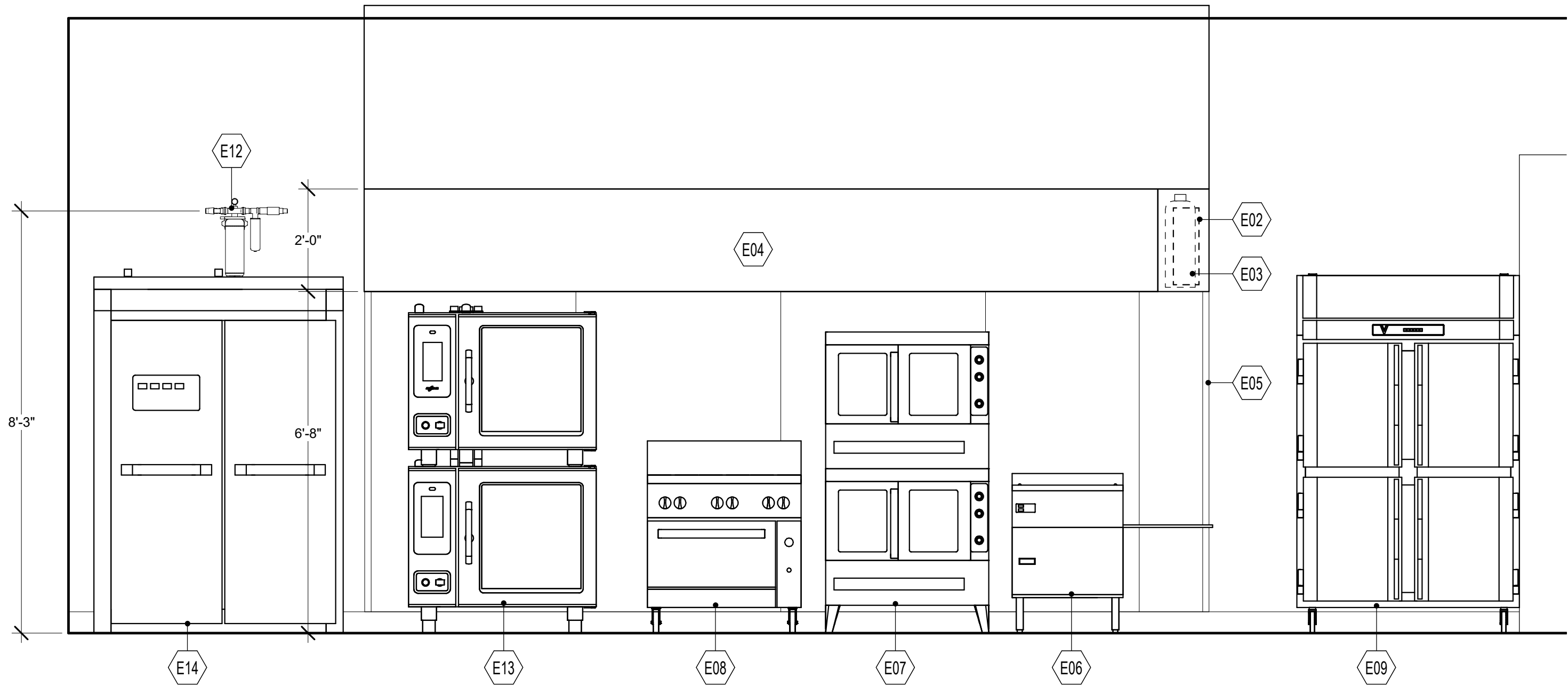
2 Elevation - Salad Bar
FS5-1-2 1/2" = 1'-0"



3 Elevation - Tray Washing
FS5-1-2 1/2" = 1'-0"



4 Elevation - Work Counter
FS5-1-2 1/2" = 1'-0"



5 Elevation - Baking Equipment
FS5-1-2 1/2" = 1'-0"

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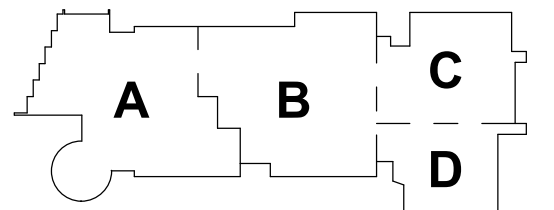
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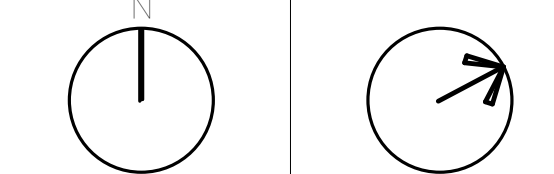
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May 12th, 2023



KEY PLAN

PROJECT NORTH MAGNETIC NORTH



FOODSERVICE
EQUIPMENT
ELEVATIONS

Scale: 1/2" = 1'-0"
Job No.: 20202
Drawn By: RM
Date: May 12th, 2023

FS5-1-2