RIPPE ASSOCIATES
FOODSERVICE DESIGN + CONSULTING

WDMCS - Valley Southwoods CTE Addition

West Des Moines, IA

November 2, 2021

SUGGESTED BIDDERS LIST

We suggest using the following Foodservice Equipment Contractors in bidding this project.

Boelter Companies
6370 W. 148th St. South
Mitchellville, IA 50169
Phone: (515) 967-6367
Attn: Velvet McConnell
vmcconnell@boelter.com

Great Lakes Hotel Supply
24101 West 9 Mile Road
Southfield, MI 48033
Phone: (313) 962-9176
Attn: Kathy Peake
kathy@glhsco.com

IS Restaurant Design, Equipment & Supply
1421 B Avenue
Sioux Falls, SD 57104
Phone: (800) 440-9697
Attn: Doug Stegenga
doug@isdakota.com

Rapids Foodservice Contract and Design
6201 South Gateway Drive
Marion, IA 52302
Phone: (319) 447-1670
Attn: Bob Wiltgen
bobw@rapidswholesale.com

Servco Companies
3189 Jamieson Ave.
St. Louis, MO 63139
Phone: (314) 781-3189
Attn: Greg Gates
ggates@servco-stl.com

TriMark Hockenbergs
6000 Aurora Avenue
Des Moines, IA 50322
Phone: (515) 282-0033
Attn: Matt Elliott
matte@hockenbergs.com

WDMCS – Valley Southwoods CTE Addition
SECTION 11 4000 - FOODSERVICE EQUIPMENT
ITEMIZED BID FORM

Name of Bidder: _____

Address: _____

_____

Telephone: _____ Date:_____

We the undersigned, will furnish all labor, materials, equipment, facilities, etc., and perform all work required for the construction and completion of the foodservices equipment work for the foodservice facilities at WDMCS - Valley Southwoods CTE Addition in accordance with the drawings and specifications dated 11/2/2021.

The following is a subdivision of our tender for the work:

(A)	Equipment	$_____
(B)	Installation	$_____
(C)	Tax (if applicable)	$_____
	Total Contract Price	$_____

_____dollars
(written amount)

Addenda

We include, in the above Bid the sum, the modifications to the Work described in the following Addenda received prior to the submission of the Bid.

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Bond

The Bid does not include allowance for performance bond and payment bonds. If such bonds are required, said bonds will be furnished and executed for the additional sum of:

$_____

NOTE: USE OF THIS FORM IS MANDATORY

WDMCS – Valley Southwoods CTE Addition
SECTION 11 4000 - FOODSERVICE EQUIPMENT
ITEMIZED BID FORM

Subcontractors

The following subcontractors will be

a. Custom Fabrication _____

b. Installation _____

c. Refrigeration _____

d. Other _____

Proposal Guarantee

The price stated in this Bid is guaranteed for a period of not less than sixty (60) days, nor more than _____ days from the date hereof, and if authorized to proceed within that period, we agree to complete the work covered by this Bid at said price.

The undersigned _____ is licensed to do business in the State of
(individual, partnership, corporation)

_____ .

License No. _____

By _____

Title _____

Information Required

Bidder to state:

1. If Partnership, list names of all partners:

   _____

2. If the corporation, give state of incorporation:

   _____

Itemized Bid

The following itemized equipment bid is an integral part of this Proposal. The Owner reserves the right to delete any item and receive full credit up until the time that the equipment contractor is authorized by the Owner's representatives to purchase or fabricate that equipment item. Include installation and tax (if applicable) within the cost of each item.

WDMCS – Valley Southwoods CTE Addition
SECTION 11 4000 - FOODSERVICE EQUIPMENT
ITEMIZED BID FORM

Item #	Qty	Description	Remarks	Item Cost	Total Cost
1	5	MOBILE WARMING CABINET	EXISTING/NO CHANGE		
2	1	RECEIVING CART	EXISTING/NO CHANGE		
3	1	WALK-IN FREEZER	EXISTING/MODIFY	_____	_____
4	1	WALK-IN REFRIGERATOR COMPLEX	EXISTING/NO CHANGE		
5	1	DRY STORAGE SHELVING	EXISTING/NO CHANGE		
6	5	ENCLOSED COLD TRANSPORT CART	EXISTING/NO CHANGE		
7	3	REFRIGERATOR/FREEZER SHELVING	EXISTING/NO CHANGE		
8	1	RACKED REFRIGERATION SYSTEM		_____	_____
9	2	HIGH DENSITY SHELVING		_____	_____
10	1	HIGH DENSITY SHELVING		_____	_____
11 A	1	ICE BIN		_____	_____
11 B	1	ICE MAKER	RELOCATE/MODIFY	_____	_____
12	3	DUNNAGE SHELF	EXISTING/NO CHANGE		
13	1	FLOOR TROUGH		_____	_____
14	8	MOBILE RACK	EXISTING/NO CHANGE		
15		OPEN NUMBER			
16	3	DUNNAGE RACK	EXISTING/OWNER TO RELOCATE		
17	8	DRY STORAGE SHELVING	EXISTING/OWNER TO RELOCATE		
18 A	2	AIR CURTAIN	EXISTING/NO CHANGE		
18 B	1	AIR CURTAIN	EXISTING/RELOCATE	_____	_____
19	2	UTILITY CART	EXISTING/OWNER TO RELOCATE		
20	1	UTENSIL RACK	EXISTING/NO CHANGE		
21	1	VEGETABLE PREP COUNTER W/SINKS	EXISTING/NO CHANGE		
22	1	DISPOSER W/SPRAY RINSE	EXISTING/NO CHANGE		
23	1	WALL HUNG SHELVING	EXISTING/NO CHANGE		
24	2	SHEET PAN DOLLY	EXISTING/NO CHANGE		
25	5	HAND SINK		_____	_____
26	1	MOBILE WORKTABLE	EXISTING/NO CHANGE		
27	1	MOBILE WORKTABLE	EXISTING/NO CHANGE		
28		28-46 OPEN NUMBERS			
47	1	POT & PAN SINK	EXISTING/RELOCATE	_____	_____
48	1	DISPOSER W/SPRAY RINSE	EXISTING/RELOCATE	_____	_____
49		OPEN NUMBER			

WDMCS – Valley Southwoods CTE Addition
SECTION 11 4000 - FOODSERVICE EQUIPMENT
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Item #	Qty	Description	Remarks	Item Cost	Total Cost
50		OPEN NUMBER			
51	1	WALL HUNG SHELVING	EXISTING/NO CHANGE		
52		OPEN NUMBER			
53		OPEN NUMBER			
54	3	PAN STORAGE SHELVING	EXISTING/NO CHANGE		
55		OPEN NUMBER			
56		OPEN NUMBER			
57 A	1	COMBI OVEN, 2-SEC.	EXISTING/RELOCATE	_____	_____
57 B	1	WATER FILTRATION SYSTEM	EXISTING/RELOCATE	_____	_____
58	1	CONVECTION OVEN, 2-SEC.	EXISTING/RELOCATE	_____	_____
59		59-67 OPEN NUMBERS			
68	1	60 QUART MIXER	EXISTING/RELOCATE	_____	_____
69		OPEN NUMBER			
70		OPEN NUMBER			
71	1	EXHAUST HOOD (TYPE I)		_____	_____
72	1	STAINLESS STEEL WALL PANEL		_____	_____
73	1	FIRE PROTECTION SYSTEM		_____	_____
74 A	1	ROLL-IN COMBI OVEN		_____	_____
74 B	1	WATER FILTRATION SYSTEM		_____	_____
74 C	1	BUMPER GUARD		_____	_____
75	1	EXHAUST HOOD CONTROL PANEL		_____	_____
76	1	WORKCOUNTER W/SINKS & OVERSHELF		_____	_____
77	2	MOBILE TRASH BIN	EXISTING/OWNER TO RELOCATE		
78	1	ROLL-THRU REFRIGERATOR, 2-SEC.		_____	_____
79		OPEN NUMBER			
80		OPEN NUMBER			
81	3	MOBILE TRAY DISPENSER		_____	_____
82	1	SERVING COUNTER		_____	_____
83	1	PROTECTOR SHELF SYSTEM		_____	_____
84	2	HOT/COLD PAN, 4-WELL		_____	_____
85	2	HOT/COLD PAN, 1-WELL		_____	_____
86	2	HOT/COLD PAN, 3-WELL		_____	_____
87	3	MOBILE WARMING CABINET		_____	_____

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ITEMIZED BID FORM

Item #	Qty	Description	Remarks	Item Cost	Total Cost
88	1	SERVING COUNTER		_____	_____
89	1	PROTECTOR SHELF SYSTEM		_____	_____
90		OPEN NUMBER			
91	2	DROP-IN COLD PAN, 2-WELL		_____	_____
92	2	DROP-IN COLD PAN, 3-WELL		_____	_____
93	4	REFRIGERATED DISPLAY CASE		_____	_____
94	2	SNACK SHELVING		_____	_____
95		OPEN NUMBER			
96	1	MOBILE CASHIER STAND		_____	_____
97	2	FLATWARE DISPENSER		_____	_____
98	3	P.O.S. SYSTEM	BY OWNER		
99		OPEN NUMBER			
100	1	UNDERMOUNT UTILITY SINK		_____	_____
101	1	A LA CARTE COUNTER		_____	_____
102	1	NOVELTY ICE CREAM DISPLAY		_____	_____
103	1	FROZEN DRINK MACHINE	BY OWNER'S VENDOR		
104	1	REACH-IN REFRIGERATOR, 1-SEC		_____	_____
105		OPEN NUMBER			
106	1	MOBILE WORKTABLE		_____	_____
107	1	WALL SHELF		_____	_____
108	1	REACH-IN FREEZER, 1-SEC.		_____	_____
109		OPEN NUMBER			
110		OPEN NUMBER			
111	1	SOILED DISHTABLE		_____	_____
112	1	WASTE COLLECTOR		_____	_____
113	1	SPRAY RINSE		_____	_____
114	2	EXHAUST DUCT RISER		_____	_____
115		OPEN NUMBER			
116	1	DISHMACHINE W/BOOSTER HEATER		_____	_____
117	1	FLOOR TROUGH		_____	_____
118	1	CLEAN DISHTABLE		_____	_____
119	1	WALL SHELF		_____	_____
120		OPEN NUMBER			

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SECTION 11 4000 - FOODSERVICE EQUIPMENT
ITEMIZED BID FORM

Item #	Qty	Description	Remarks	Item Cost	Total Cost
121	1	HOSE REEL		_____	_____
122	1	EYE/FACE WASH STATION		_____	_____
200	1	REACH-IN FREEZER, 2-SEC.		_____	_____
201	2	REACH-IN REFRIGERATOR, 2-SEC.		_____	_____
202	1	EYE/FACE WASH STATION		_____	_____
203	1	LAUNDRY SINK		_____	_____
204	1	WASHER	BY OWNER		
205		OPEN NUMBER			
206	1	DRYER	BY OWNER		
207	5	HAND SINK		_____	_____
208	1	POT & PAN SINK		_____	_____
209	1	WALL SHELF		_____	_____
210	1	FLOOR TROUGH		_____	_____
211	4	MOBILE TRASH BIN	BY OWNER		
212	2	PAN STORAGE SHELVING		_____	_____
213	1	ICE MAKER W/BIN		_____	_____
214	7	DRY STORAGE SHELVING		_____	_____
215	1	WALL CABINET		_____	_____
216	1	REACH-IN FREEZER, 1-SEC.		_____	_____
217	1	WORKCOUNTER W/SINKS		_____	_____
218	1	WALL CABINET		_____	_____
219	1	UNDERCOUNTER DISHMACHINE		_____	_____
220		OPEN NUMBER			
221		OPEN NUMBER			
222	2	DISPOSER		_____	_____
223	2	SPRAY RINSE		_____	_____
224		OPEN NUMBER			
225		OPEN NUMBER			
226	1	DEMONSTRATION COUNTER		_____	_____
227	1	EXHAUST HOOD, ISLAND (TYPE I)		_____	_____
228	7	6-BURNER RANGE W/OVEN		_____	_____
229	3	MOBILE INGREDIENT BIN	BY OWNER		
230	1	DEMAND CONTROL VENTILATION SYSTEM		_____	_____

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ITEMIZED BID FORM

Item #	Qty	Description	Remarks	Item Cost	Total Cost
231	1	FIRE PROTECTION SYSTEM		_____	_____
232	1	UTILITY CART		_____	_____
233	1	MOP CABINET		_____	_____
234	5	WORKCOUNTER		_____	_____
235	7	MICROWAVE OVEN		_____	_____
236	1	WORKCOUNTER - ADA		_____	_____
237	11	MOBILE WORKTABLE		_____	_____
238	1	MOBILE WORKTABLE - ADA		_____	_____
239	1	WORKCOUNTER W/SINKS		_____	_____
240	1	ADA HAND SINK		_____	_____
241	1	WALL CABINET		_____	_____
242	6	EXHAUST HOOD (TYPE I)		_____	_____
243	1	WORKCOUNTER W/SINKS		_____	_____
244	1	WALL CABINET		_____	_____
245	1	STAINLESS STEEL WALL PANEL		_____	_____
246	1	FIRE PROTECTION SYSTEM		_____	_____
247	1	WORKCOUNTER - ADA		_____	_____
248	1	WORKCOUNTER W/SINKS - ADA		_____	_____
249	1	WALL CABINET		_____	_____
250		OPEN NUMBER			
251	1	FIRE PROTECTION SYSTEM		_____	_____
252	1	STAINLESS STEEL WALL PANEL		_____	_____
253	2	STORAGE CABINET		_____	_____
254	1	WORKCOUNTER W/SINKS		_____	_____
255		OPEN NUMBER			
256	1	WALL CABINET		_____	_____
257	1	WORKCOUNTER W/SINKS		_____	_____
258	1	WALL CABINET		_____	_____
259	1	WORKCOUNTER		_____	_____
260		OPEN NUMBER			
261	1	WORKCOUNTER W/SINKS		_____	_____
262	1	WALL CABINET		_____	_____

TOTAL $_____

SECTION 11 4000
FOODSERVICE EQUIPMENT

PART 1 GENERAL

1.1 WORK INCLUDED: Provide labor, equipment, appliances and materials, and perform all operations in connection with the execution of the Work as stated and as represented in the drawings and specifications including that which is reasonably inferred; install and coordinate all equipment in Section 11 4000.

A. Equipment: Fabricate, deliver, unload, uncrate, assemble, set in place and level ready for final connection by mechanical and electrical trades.

B. Coordination: Coordinate mechanical and electrical rough in services, manufactured equipment and fabricated equipment construction, equipment bases, curbs, ceiling heights, depressed areas, sleeves, wall openings, refrigeration lines, service access, existing building conditions that affect equipment, and all other building conditions required to accommodate the Section 11 4000 equipment including new, existing, Owner furnished, vendor furnished and future equipment with other trades; cut holes in equipment to accommodate pipes, drains, electrical conduit and outlets as required.

C. Schedule: Perform work in a timely manner consistent with the construction schedule, submit written notice of any manufacturer or construction related problems that are causing a delay in the equipment delivery or installation; substitutions for failure to order equipment in a timely manner are not acceptable.

D. Permits, Licenses and Inspections: Secure and pay for tests, permits and inspections required by authorized regulatory agencies and directly related to the construction and installation of the Section 11 4000 foodservice equipment work.

E. Document Inconsistencies: When drawings and specifications contain conflicting requirements, request written clarification; provide the better quality or greater quantity of work or material; costs incurred by failure to clarify conflicting requirements are the equipment contractor's responsibility.

F. Model Number Changes and Manufacturer Sales or Bankruptcies: When equipment specified is no longer available, the Owner reserves the right to accept the manufacturer's replacement or equipment from a manufacturer specified as equal; the Owner reserves the right to reject equipment when a specified manufacturer is sold, when sale is pending, when filing for Chapter 7 or 11 status, and receive equipment from a specified equal manufacturer.

G. FSEC Qualifications: Must be able to provide references for two projects of similar size and complexity within the past five years. These must be consultant specified projects successfully completed to the Owner’s satisfaction.

1.2 RELATED WORK SPECIFIED IN MECHANICAL AND ELECTRICAL SECTIONS

A. Services and Connections: Extending utility lines from rough in locations to connection points on the equipment and final connections, including indirect wastes to floor drains and installation of faucets and backflow prevention devices, unless otherwise specified.

B. Interconnections: Between equipment and remote components.

C. Disconnection: Existing equipment that is relocated or removed.

1.3 DEFINITIONS

A. Equal: Must be comparable in critical dimensions, capacity, features, utilities and operation; if equal is submitted, pay all costs required to modify work of any trade affected to accommodate equal.

B. Exposed: All visible surfaces — includes surfaces behind cabinet doors when the doors are open.

C. Foodservice Equipment Contractor (FSEC): Person or organization identified as such in the Agreement as providing the Section 11 4000 equipment

D. Fabricated Equipment: Equipment that is not a standard catalog item and must be constructed by a singular authorized fabricator from Article 2.01, Paragraph B at their shop or on the job site to conform to the Contract Documents.

E. Manufactured Equipment: Equipment offered as a catalog item, but which is built to size for each project and generally requires a shop drawing

F. Buy-out Equipment: Equipment offered as a catalog item by a manufacturer, including items requiring minor modifications.

1.4 REGULATORY REQUIREMENTS

A. Laws and Ordinances: Comply with laws, ordinances, rules, codes and regulations relating to the performance of the Work; rulings and interpretations of the enforcing agencies are considered a part of the regulations; no extra charge will be paid for furnishing items required by the enforcing agency.

B. Minimum Standards: Notify the Owner's Representative prior to equipment purchase and/or installation of any item that does not comply with the applicable regulations, including but not limited to the following:
   1. National Sanitation Foundation (NSF): Equipment and installation; affix the NSF label to each equipment item
   2. Underwriters Laboratory (UL): Electrical equipment and/or components
   3. American Gas Association (AGA): Gas fired equipment and installation
   4. American Institute of Electrical and Electronics Engineers: Electrical wiring and devices included with the equipment
   5. American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc. (ASHRAE): Refrigeration systems
   6. American Society of Mechanical Engineers (ASME): Boilers
   7. National Electrical Code (NEC): Electrical wiring and devices included with the equipment
   8. National Fire Protection Association (NFPA): Exhaust hood and fire protection systems
   9. American Society of Tested Materials (ASTM): Metals
   10. American National Standards Institute (ANSI): Materials
   11. Occupational Safety and Health Agency (OSHA): Equipment and installation
   12. Sheet Metal and Air Conditioning Contractors National Association (SMACNA): Equipment and installation where required
   13. American Disabilities Act (ADA): Equipment and installation where required
   14. International Building Code (IBC) and Standard Building Code (SBCC): Equipment and installation where required

15. Intertek Testing Services (ETL)
16. Safe Drinking Water Act: Lead-free plumbing fittings, faucets and fixtures or more stringent state/local codes where applicable
17. US Energy Independence Act 2007: Walk-in Refrigerator and Freezers and Refrigeration Systems

1.5 SUBMITTALS

A. General: Manufacturer or fabricator changes are not acceptable after submittal review and acceptance without written authorization from Owner's Representative.

B. Schedule: Submit within thirty (30) days from award of Contract; identify key dates and tasks that must be completed by others in order to meet the equipment installation schedule.

C. Review: Stamp and sign each submittal indicating it has been checked for conformance to the specifications, field dimensions, compatibility with other equipment, and coordination with other trades and services.

D. Revisions: Incorporate corrections noted by the Owner's Representative and resubmit new sets for review; repeat until corrections are incorporated.

E. Electronic shop drawings submittals - submit separate submittals per manufacturer
1. Transmittal one to include:
   a. Equipment brochure
   b. Equipment plan and schedule, rough-in plans and schedules and special conditions plan
   c. Hood, walk-ins, floor troughs and refrigeration
   d. Remaining custom equipment shop drawings
2. Transmittal two to include:
   a. Fabricated equipment shop drawings and protector shelves

F. Drawings
1. General
   a. Match the contract drawings sheet size
   b. Leave a 3” x 8” space for review stamps
   c. Lettering not less than 1/8” high
2. Floor Plan and Schedule
   a. Scale: ¼” = 1’ 0”
   b. Number equipment and include a schedule on the same sheet if possible
   c. Use Architect's dimensioned plans to prepare plan drawing; verify field dimensions
3. Rough in Plan
   a. General: Provide a utility symbol legend; list the utility requirements, along with the equipment item number on a line extending from the symbol; show exact rough in locations and heights; stub out of walls wherever possible; make allowances for valves, fittings and other required components specified under Mechanical and Electrical Sections; if utilities are already installed, field measure locations and indicate on plan, noting any objection to installed location.
   b. Scale: ¼” = 1’ 0”
   c. Equipment Included: Show requirements for specified, Owner furnished, existing and future equipment; include equipment layout on drawing
   d. Format: Provide separate drawings for mechanical and electrical rough-in plans and schedules.

e. Dimensioning: Dimension utility rough ins installed under floor from either existing walls, exterior walls or from column line centers; dimension other rough ins from new walls
f. Code Compliance: See Article 1.4
g. Coordination: Refer to the architectural, electrical and mechanical engineering drawings for this submission; verify that the correct utility services are available for equipment ordered; verify existing building conditions; coordinate any changes required to accommodate equipment provided
h. Interconnections: Include connection diagrams for equipment where one or more items are interconnected by Mechanical and Electrical Trades
i. Sleeves and Conduits: Include requirements for beverage lines, refrigeration lines and any other equipment interconnections

4. Special Conditions (building details): Show finished dimensions of bases, depressions, curbs, special height walls, wall backing, and wall openings for equipment; ¼" = 1' 0" scale; coordinate with other trades; include equipment layout on drawing
5. Equipment Shop Drawings
   a. Scale: Detail fabricated and manufactured equipment in plan, elevation and end view at ¾" = 1' 0" or larger; show sections at 1 ½" = 1' 0" or larger
   b. Detail: Show fabricated equipment dimensions and materials, manufacturer and type of hardware, and other pertinent data as specified and as required for construction; where fabricated equipment adjoins other equipment, indicate partial plans and elevations to illustrate the junction condition; show stone/solid surfacing dimensions, locations, dimensions of cutouts, and countertop seam locations, required locations of support and blocking members, edge profiles, and installation details and methods; identify colors and finishes
   c. Organization: Indicate equipment by item number and arrange on sheets in numerical sequence
   d. Built-in and Counter-mounted Equipment: Show on fabricated equipment elevation and section drawings; dot in countertop equipment on plans; detail built-in/drop-in equipment supports and relationship to quartz top
   e. Field Dimensions: Equipment dimensions are subject to adjustments required by field dimensions and understructure components; take measurements and coordinate with finished building conditions; field dimensions completed by a company/person approved by the custom fabricator; circle any dimensional changes on initial and subsequent submissions
   f. Hood Fire Protection System: Submit complete detailed shop drawings including system description, configuration and system component locations; after review by design team, incorporate comments and submit to fire authorities having jurisdiction for system approval prior to fabrication
   g. Walk-ins: Show ceiling panel lay-outs and all control and switch locations

G. Written Materials
1. Itemized Bid: If not required during bid submittal, provide itemized bid within 10 days of bid award date; include freight and installation within each item.
2. General: Submit two (2) bound copies for review; if submitted electronically, they are to follow the same format as the hard copy.
3. Equipment Brochure
   a. Equipment List: Include item number, quantity and manufacturer
   b. Cover Sheet: Submit a typewritten sheet — copies of project specification are not acceptable — for each item with item number and equipment description to include model number, quantity, optional features, special construction, installation and utility service requirements for manufacturer provided; include Owner furnished, existing and future equipment

c. Manufacturer's Catalog Sheet: Circle relevant utility requirements, dimensions and accessories for each item; do not include advertising or sales sheets; mark item number and quantity required; mark out equipment not being supplied
d. Organization: Arrange sheets in numerical sequence; tab every 25th item

4. Operation and Maintenance Manual – submit prior to equipment demonstrations
   a. Service Agents: List manufacturers alphabetically with tabs; list equipment type; identify local service agent; list the name, address and telephone number authorized to service the equipment; list FSEC when there is no other service agent
   b. Parts Catalog, Operating and Maintenance Instructions: Include manufacturer's original instructions for buy-out and manufactured equipment; organize alphabetically by manufacturer
   c. Certificate of Warranty: Provide for each piece of refrigeration equipment per Article 1.7 C & D
5. Utility Rebate Documents: For applicable equipment, provide and prepare manufacturer's rebate registration documents for submission by Owner to utility company; include pertinent equipment model/serial numbers, utility data, installation dates and other information needed to complete application.
6. LEED Information: (if required)
   a. Refrigeration: For each item of refrigeration (self-contained and remote) identify type of refrigerant used and pounds of refrigerant used by each refrigeration system.
   b. Spray Rinse Faucets: Identify gallons per minute flow rate.

1.6 SUBSTITUTIONS

A. Procedure: Submit a written request to the Owner's Representative for approval not less than ten (10) days prior to the bid date; include a description of the proposed substitute, drawings, equipment cutsheets, performance test data and any other data or information necessary for complete evaluation; list separately construction and performance features that do not meet or exceed the specified item.

B. Approval: Approval or rejection of a proposed substitution is vested in the Owner's Representative whose decision is final and binding; determination may or may not express the reason for the decision; approval by Addendum or Change Order only; verbal approval is not binding.

C. Responsibility: If proposed substitution is approved, pay all costs required to modify work of any trade affected to accommodate substitution.

1.7WARRANTY/CORRECTION PERIOD

A. General: Warranty equipment and installation with full parts and labor for one (1) calendar year from date of acceptance by Owner's Representative; Owner's acceptance is defined by first date of foodservice facility operation; inoperable equipment is not considered "accepted"; inoperable equipment includes, but is not limited to, inadequate training and demonstration, defective materials and improper installation.

B. Walk-in Refrigeration and Freezer Systems: One year full system parts and labor warranty to cover all components and installation; five (5) year compressor/condenser warranty to cover parts and materials only; service available 24 hours per day, seven (7) days per week; contract begins on date of acceptance by Owner's Representative.

C. Other Equipment: Compressors/Condensers: Five (5) year warranty; first year to include labor and materials without charge to Owner.

D. Fire Protection System: Warranty and required inspections for one (1) year; provide materials without charge to Owner.

E. Correction Period: When the complete breakdown of a piece of equipment occurs, perform service within 24 hours; make other repairs within one week.

F. Service Agreement: Service agents listed in the Operation and Maintenance Manual must perform service as described above; repairs and/or replacements not made within the specified time will be corrected by other means and the Section 11 4000 contractor is responsible for reasonable costs incurred.

G. Defective Equipment: If within the first year of operation the piece of equipment has not been fully operational for 6 continuous months, the FSEC will replace the unit at their expense.

PART 2 PRODUCTS

2.1 QUALIFIED FABRICATORS

A. Qualifications: Minimum five years' experience in similar work; produce custom fabricated equipment in one shop.

B. Authorized Equipment Fabricators: The following companies are approved custom stainless steel equipment fabricators; request for substitutions can be made per Article 1.6. Must be NSF (or ETL Sanitation) listed for counter construction and UL (or ETL) listed fabricator. Fabricator must prewire counters to a single point connection; see Article 2.11C.

ACS Fab LLC
(651) 265-0603

FSF Manufacturing
(407) 971-8280

IEI Institutional Equipment Inc.
(630) 771-0990

Servco Companies
(314) 781-3189

C. Authorized Quartz Surface Fabricators: Minimum five years' experience fabricating quartz surface materials or granite using water-cooled cutting tools; certified fabricator/installer, certified in writing by the manufacturer.

D. Coordination Requirements: Field dimensions and installation must be done by a fabricator approved person/company.

2.2 MATERIALS

A. General: Furnish new materials free from faults and defects in materials and workmanship

B. Metals
1. Gauges: U.S. Standard Gauge; not more than 5% plus or minus from thickness indicated below:

Gauge	Thickness	Gauge	Thickness
10	0.1406	16	0.0625
12	0.1094	18	0.0500
14	0.0781	20	0.0375

2. Stainless Steel: ANSI Type 304, number 4 finish, 180 grit, extra low carbon, non-magnetic, 18% chrome, 8% nickel, corrosion resistant alloy steel; flat, first grade and free of buckles and surface imperfections
3. Galvanized Sheet Steel: Zinc coating, smooth, free of runs, blisters, excess spelter and uncoated spots or patches; recoat welded or damaged members; finish with two coats of epoxy based gray Hammertone paint
4. Aluminum Sheet Metal: ASTM sheet and plate; ASTM extrusions; 0.40 mil clear anodized finish unless otherwise specified
5. Stainless Steel Tubing: Type 304, number 4 finish 180 grit; seamless or welded; 16 gauge; annealed, ground smooth and polished; heat treated and properly quenched to eliminate precipitation; drawn true to size and roundness and polished with concentric grain
6. Black Iron Angle: Ductile in quality; free of hard spots, runs, checks, cracks and other surface defects; clean and properly prime with rust inhibiting primer; finish with two coats of epoxy based gray Hammertone paint

C. Sealant:
1. General: Dow Corning, Silastic or G.E. RTV 108 silver color; Type S Grade NS, Class 25; comply with Food and Drug Administration Regulation 21 CFR 177.2600 for food contact areas or equal by Kason 3700 Series Rubbaseal silicone
2. Walk-in Penetrations: Low expansion, closed cell polyurethane foam

D. Glass: Tempered 3/8” thick, unless noted otherwise

E. Plastics: Polycarbonate or acrylic as specified; ¼” thick

F. Cutting Board: Richlite R50 or equal by Paperstone leather or per item specification, ½” thick; size as specified; 1” diameter finger hole when used below drawers

G. Bolts, Screws and Nuts: Unacceptable on exposed surfaces; use same composition as the metal to which they are applied; space to insure suitable fastening and to prevent bulging of the metals fastened; cap threads with a zinc plated combination hexnut-lockwasher; cap screw threads that are not visible or readily accessible with a standard lock washer and nut; wherever bolts or screws are welded to the underside of trim or tops, neatly finish the reverse side; depressions at these points are not acceptable

H. Rivets: Unacceptable as a method of fastening

I. Sound Deadening
1. Tape Sealant: Schnee Morehead, Inc., Model SM5227 Tacky Tape or Component Hardware Model Q85-5225 Tacky Tape
2. Spray- On: Sink bottoms only; do not coat beyond sink front cove

2.3 FABRICATION - GENERAL

A. Final Coordination: After approved shop drawings are issued, communicate subsequent changes to the Owner's representative before fabrication begins.

B. Quality Standards: Include necessary reinforcing, bracing, welding, number and spacing of uprights and crossmembers for adequate strength; construct tops, shelves, exterior panels, doors and drainboards of a single metal sheet when possible; except where

removable, secure flat surfaces to vertical and horizontal bracing members by welding or other approved means to eliminate buckle, warp, rattle and wobble; equipment subject to rattle or wobble is not acceptable; overlapping materials are not acceptable; unless specified, exposed joints on countertops, cabinet bases and overshelves are not acceptable.

C. Welding: Heliarc method; same composition as materials welded; complete welds, strong and ductile, with excess metal ground off and joints finished smooth to match adjoining surfaces; free of mechanical imperfections such as gas holes, pits, runs and cracks; same finish as adjoining surfaces.
   1. Spot Welds: 3” maximum spacing
   2. Tack Welds: Minimum ¼” welding material at 3” maximum spacing

D. Butt Joints: Unacceptable as a method of fastening on fabricated and manufactured equipment

E. Tops: 14 gauge seamless stainless steel; fully weld with edges as specified; pitch drainboards ¼” per foot; 1” maximum pitch
   1. Edges: Detail SD-1 and as specified
   2. Backsplash: Detail SD-2; continuously weld rolled edges abutting splashes

F. Sinks: Detail SD-9 & SD-10

G. Scrapping Trough:
   1. Trough with Disposer: Integral with draintable; pitch to sink; chrome-plated water inlets per elevation; silver saver; stainless steel trough covers if shown; slope trough from 3" to 6" at disposer sink; disposer sink with stainless steel cover per SD-64; weld disposer collar into sink

H. Grain of Polishing: Run in the same direction on all horizontal and on all vertical surfaces; where table or sink tops join at right angles, terminate the finish in a mitered edge; polish grain consistent in direction throughout the length of the backsplash and sink compartment.

I. Framework
   1. Draintables and Worktables: Detail SD-3
   2. Serving Counters and Cabinet Bases: Detail SD-7, SD-8 & SD-71

J. Counter/Table Construction
   1. Legs: Detail SD-4
   2. Crossrails: Detail SD-4
   3. Undershelves:
      a. Welded: Detail SD-5
      b. Removable: Detail SD-6

K. Cabinet Construction: Inaccessible open areas are not acceptable; no exposed shelf standard screws
   1. Standard Construction: Detail SD-7, SD-26 & SD-28
   2. Piece Construction: When specified, Detail SD- 8 & SD-27
   3. General
      a. Sink Enclosure: Detail SD-12, SD-12a & SD-13
      b. Utility Curb: Detail SD-30
      c. Channel Base: Detail SD-77; coordinate recessed areas in bases; inaccessible open areas are not acceptable
      d. Access Panels: Detail SD-29

L. Doors
1. Hinged Solid: Detail SD-17; door face flush with cabinet body
2. Sliding: Detail SD-21; removable for cleaning
3. Hinged Louvered: Detail SD-19 or 20; door face flush with cabinet body
4. Hinged Perforated Panel: Detail SD-19A; door face flush with cabinet body

M. Drawers: Detail SD-14; drawer face flush with cabinet body

N. Elevated Shelves:
1. Wall Shelves: Detail SD-25
2. Table Mounted Shelves: Detail SD-22, SD-23 & SD-24

O. Built In Equipment: Install per manufacturer's recommendations, Article 2.11 and project details.
1. General: Coordinate to provide adequate ventilation, service access and support structure; submit written notification of any design conditions that are likely to prevent proper operation or that void equipment warranty; provide supplemental fans if required for proper operation; equipment contractor is responsible for proper operation of equipment
2. Food Wells: Connect drainlines to ¾" diameter manifold and extend to a ball valve; provide chrome plated handle for drain valve and locate in stainless steel recessed cup in counter mullion; countertop temperature greater than 175°F within 2" of well opening is not acceptable

P. Counter Mounted Equipment: Ferrule openings to accommodate cords, wiring, and/or piping.

2.4 FABRICATION – REFRIGERATION

2.5 HARDWARE COMPONENTS

A. Cap Nuts: Component Hardware Model Q31 Series with lock washer

B. Casters: 5" diameter polyurethane tire swivel casters; grey tire; minimum 250# capacity; NSF approved; models as follows.
1. Stem Caster: Jarvis & Jarvis Model 5-40-213G-19A or Component Hardware Model CMS4-5RPB
2. Stem Caster with Brake: Jarvis & Jarvis Model 5-40-213G-VL-19A with Vertilok brake or Component Hardware Model CMS4-5RBB with brake
3. Plate Caster: Jarvis & Jarvis Model 5-30-213G-PLT2 or Component Hardware Model CMP1-5RPB
4. Plate Caster with Brake: Jarvis & Jarvis Model 5-30-213G-VL-PTL2 with Vertilok brake or Component Hardware Model CMP1-5RBB with brake

C. Drain Valve Recessed Cup: Vollrath, Model 47536.

D. Drain Valve Handle: Chicago, Model 634; 3" diameter, four arm metal cross handle.

E. Glass Capping: Component Hardware Model B70-1001; stainless steel.

F. Locks: Component Hardware Model P30 Series; stainless steel faced; master keyed

G. Pot Rack Hooks: Component Hardware, Model J79-4115, single prong; Model J77-4401, double prong; stainless steel.

H. Switch/Receptacle Housing
1. Recessed: Component Hardware Model R73 1210
2. Pedestal: Component Hardware Model R58-1010

I. Cash Drawer Assembly without Tray: Component Hardware Model S95-Y001

2.6 MILLWORK

A. Materials
1. Core Material: Medex exterior resin medium density fiberboard; conform to ANSI A208.2.3.3.4, as manufactured by ROSEBURG Forest Products (Ph: 800/245-1115) or equal by Norbord MDF-MR (Ph: 800/367-6338)
2. Plastic Laminate: NEMA LD3 1/16" Type I general purpose, Grade 10, color-through and high pressure; color, pattern, and finish as specified
3. Backing Sheets: NEMA LD .020" thick, Type V, Grade 91 plastic laminate; apply on all surfaces not covered with plastic laminate; coordinate color with exposed surface color; comply with NSF Standard 35
4. Adhesive: Formica 100 or 150
5. Grain/Pattern: Coordinate on all equipment furnished under this section so that grain/pattern runs in same direction throughout project
6. Wood Frames and Counter Edges
   a. Exposed: Species, grade and finish per item specification or detail
   b. Unexposed: Solid, choice white pine free from knots and defects
7. Edge Banding: Doellken PVC 3mm thickness with beveled edge, color to match adjacent plastic laminate

B. Construction: Detail SD-171, SD-172, SD-173 & SD-174; 1977 AWI Premium Grade Standards; factory assemble parts and prefinish; flush type fronts and overlapping ends; ¾" core material base cabinet, ends and dividers with corner joints between frame members fully lock jointed, glued and screwed; dado and glue cabinet backs into sides and bottom; scribe countertops and backsplashes; secure countertops to base cabinet from underside; fully cure surfaces prior to installation.

C. Hardware
1. General: Utilize expandable dowels for screws on all cabinet hardware installed on MDF
2. Hinges
   a. Standard: Blum or equal by Grass Institutional Series per Detail SD-169 and SD-179, minimum 110° opening, concealed casework hinges; utilize doweled cup and hinge screws when installed on MDF
   b. When Specified: Component Hardware Model M75-5003
   c. Double Acting: Bommer Industries Part No. 7122 & 7322 gate spring pivot; chrome plated
3. Catches: Only required with Component Hardware hinge, either is acceptable
   a. Non Magnetic: Component Hardware Model M22-2420; adjustable tension
   b. Magnetic: Component Hardware Model M30-2400; heavy duty; self-aligning
4. Pulls: Hafele, Model 124.02.920, anodized silver finish, Component Hardware Group, Model P46-1010, brushed stainless, Epco-Engineered Product Co. DP-41-SS-3, anodized stainless steel, or as specified
5. Locks: Component Hardware Model P30 Series; stainless faced; master keyed as specified
6. Legs: Component Hardware Model A77-5048-C stainless steel with adjustable hex foot.

D. Trayslide and Counterfront: See project detail.
1. Panels: Easily removable without the use of tools; finish edges to match front surface

2. Louvered Panel and Door: Horizontal hardwood slats mounted inside panel frame; slats canted at 45° angle; space slats ¾" apart; cover front and exposed top with finish material; cover unexposed areas with the specified backing sheet
3. Hinged Access Door: Locate where shown; finish edges to match front surface
4. Backing Sheet: Patio door fiberglass screen material, charcoal color

E. Solid Surface Materials
1. Solid Surface: DuPont Corian; thickness as detailed; grade, color, finish and edges as indicated on elevations and details
2. Joint Adhesive: DuPont Joint Adhesive, to match surfacing color
3. Sealant: Silicone Sealant for DuPont Corian, to match surfacing color
4. Substructure Mounting Adhesive: Provide silicone, epoxy or polyester adhesive of type recommended by manufacturer for application and conditions of use
5. Support/Backing: As detailed and per manufacturer's recommendations

F. Solid Surface Fabrication and Installation
1. Fabrication: Use sheets of maximum width and length in accordance with manufacturer's recommendations; provide soft seam at a minimum of every sheet length and where recommended by manufacturer; verify dimensions by field measurement prior to fabrication; inspect material for defects prior to fabrication; materials throughout project to be from same manufacturer batch number; variation in distribution of aggregates which are within manufacturer's tolerances is not a defect
2. Seams/Joints: Joints to be flush, tight fitting, level and neat; indicate seam locations on shop drawings; apply joint adhesive and sealants in accordance with specified manufacturer's recommendations; provide appropriate seam reinforcement where exposed to loads; flexible expansion joint between hot and cold wells as recommended by manufacturer
3. Cutouts: Corner radius as recommended by manufacturer; minimum expansion gap between cutout and drop-in equipment as recommended by manufacturer; cutout support as recommended by manufacturer so weight of drop-in equipment is not supported by countertop material; use Nomex insulation and aluminum foil tape as required by manufacturer at hot and cold cutouts
4. Drop-in Equipment: drop-in/built-in equipment to be supported from cabinet framework
5. Mounting Sneezeguards: Mount sneezeguards to cabinet framework in accordance with manufacturer's recommendations; allow at least ¼" gap between countertop and upright perimeter; provide escutcheon cover to match finish on upright
6. Trayslides: Provide adequate support and reinforcement in accordance with manufacturer's recommendations
7. Edge Details: Fabricate in accordance with manufacturer's recommendations; indicate edge profile and installation details on shop drawings
8. Backsplash: Integral coved; set-on pieces not acceptable
9. Installation: Field install all quartz surfaces; install materials in accordance to manufacturer's recommendations; verify that substrates supporting solid surfaces are plumb, level, and flat and that necessary supports and blocking are in place
10. Cleaning and Protection: remove masking and excess adhesives and sealants; clean exposed surfaces; protect surfacing from damage by other Sections
11. Warranty and Care: Provide manufacturer warranty statement and maintenance instructions with the Operations and Maintenance Manual in Section 1.05G
12. Authorized Fabricators: Fabrication/installation by manufacturer's certified fabricator with minimum of five years' experience fabricating solid polymer materials; contact manufacturer for authorized fabricators and installers
13.

2.7 REFRIGERATION

A. Walk In Refrigerator & Freezer Construction
1. Size: Per plan; 8'-10" minimum finished interior height; interior dimensions must accommodate shelving shown on plan
2. General:
   a. Wall and Ceiling Panels (and floors, if applicable): 4" thick modular panels joined by not less than three (3), cam lock devices; cam locks accessed from inside walk in; cover access holes with gray plastic caps or white plastic to match white walls or ceiling; gasket to seal between panels; foamed in place CFC reduced urethane insulation, self-extinguishing UL classified according to ASTM and U B C 52.3 with flame spread of 25 or less and smoke development of 450 or less; R 25 or greater for refrigerators; R 32 or greater for freezers.
   b. Ceiling Panels: Span shortest distance; utilize over-partition joined panels to minimize suspended ceilings; use 5" thick ceiling panels on spans greater than 15'-0"; maximum unsupported span of 17'-4"; suspended ceiling seams siliconed and tar taped.
   c. Finishes:
      (1) Exterior Finishes: 22 gauge, Type 304 smooth stainless steel per Article 2.02B, where exposed; vertical grooves in panels are not acceptable; 22 gauge galvanized steel on unexposed surfaces
      (2) Interior Finishes
         (a) Wall Panels: .04" (before embossing) stucco embossed aluminum
         (b) Ceiling Panels: .032" smooth aluminum with two coats of white, baked polyester enamel
3. Wall Protectors (If Specified): 1-1/2" wide extruded aluminum rail with vinyl insert; field positioned; secure with unexposed sheet metal screws; end caps
4. Diamond Tread Wall Overlay (If specified): Provide 1/8" thick, 48" diamond-tread plate aluminum on exposed exterior; secure with oval countersunk head stainless steel screws and seal joints with silicone; install after stainless steel coved base and overlap stainless steel coved base by 1/2".
5. Floor: See item specifications for conditions that apply to this project; prefabricated freezer floor panels must have R-28 rating or greater; verify that building is transit level prior to installing walk ins; notify Owner and Architect if sub floor ventilation or heating is required for walk in freezers; FSEC to verify that sub-floor installation conditions are acceptable prior to installing floor and box; identify any discrepancy in writing to Owner's Representative prior to installation
6. Stainless Steel Coved Base: 22 gauge stainless steel on interior and exterior; 4" minimum height, 8'0" maximum length; 3/4" diameter cove; secure without exposed fasteners; overlap seams 1", miter joints at corners
7. Door: R-25 or greater for refrigerators; R-32 or greater for freezers; In fitting, flush mounted, not less than 36" x 78" clear opening; 22 gauge smooth stainless steel with no exposed fasteners; replaceable magnetic gasketing on top and sides; replaceable double sweep gasket at bottom; door jamb with replaceable heater wires; stainless steel reinforced heated threshold flush with finished floor; frame-mounted door heater control switch, label control switch as "door heater adjustment" with incremental temperature level indicator control markings (high, medium, low)
   a. Vision Panel: Not less than 150 square inches; heated; triple pane glass
   b. Hinges: Three, Kason Model 1346 with stainless steel cover; lift-off adjustable hinge; cam-lift spring- assisted self-closing hinges with 7-9/16" long strap; use Kason load chart to verify hinge model selection for specific door weight and width
   c. Handle: Kason 1236 or Kason 27C with steel reinforced plate inside door panel or equal by Dent, lever action door handle with cylinder lock, padlock hole and interior safety release; provide common key for all walk-in doors
   d. Door Closer: Kason 1092 or Kason 1094 with stainless steel hook

e. Kickplate: 1/8" thick diamond tread plate aluminum on both sides of door and frame; extend from door bottom to door handle; secure with counter sunk oval head stainless steel screws; seal perimeter with silicone
f. Incandescent Light: Delete lamp holder, bulb and shield entirely from door panel
g. Electrical: Wire in conduit concealed in door panel to junction box top of ceiling per Detail SD-191

8. Thermometer: -40°F to 99°F; flush-mount in door panel on latch side, 60" above floor; conceal wire through door panel to junction box on top of walk-in; provide 24 volt transformer; wire from display through door panel, and extend sensor a minimum of 6'-0" from the door, in multiple walk-in compartment application with interior door, locate display for inner compartment in outer compartment door panel below display for outer compartment
   a. Digital Thermometer with Alarm and Building Alarm Interface: Control Products, Inc. #TAL-2000D-24 or Modularm 75LC
   b. Digital Thermometer with Alarm and Building Alarm Interface: Modularm 75LC with MD-1 motion detector and IP-1 with illuminated push button for panic alarm and lights
9. Pressure Relief Port: Provide heated relief port in freezers and non-heated in refrigerators; locate in exposed wall
10. Lights: Provide minimum (or greater) foot candle light levels as required per current FDA food code or per local code requirements; see item specification for lights required for this project
    a. LED: Component Hardware Model LED48X754-CL-N; 52" long fixture; LED strips and driver replaceable without tools; 6000 lumens; locate as shown on plan; lighting intensity 10 foot candles or light level necessary to meet code.
    b. Motion Sensor: Kason Model 1901A
11. Enclosure Panels & Trim Strips: Secure with no exposed fasteners; close space between walk in and ceiling with enclosure panels, maximize panel width and minimize panel height; if access is required, supply only two 36" wide removable panels; close vertical space between walk in panels and building walls with trim strips; enclosure and trim same material as wall panels per Detail SD-193.
12. Exterior Bumpers: Stainless steel with sloped top; install on exposed exterior surfaces; 14 gauge stainless steel construction; 8" high x 2" deep with 45° angle slanted top; miter ends at 45°; apply with "Z" clip at top and stainless steel screws at bottom; center bumper 12" above finished floor; fully weld, grind and polish seams per Detail SD-189
13. Penetrations and Seams: Penetrations sealed with closed cell minimum expanding spray foam; seams sealed completely with Dow Corning 999A silicone glazing sealant to prevent condensation; tar tape on ceiling joints
14. Receptacle for Heater Tape: Provide weather tight receptacle for freezer coil drainline heater
15. Electrical: Prewire lights, alarm, door, window and port heaters, and receptacle for heater tape in ½" OD PVC conduit above walk in to junction box; ready for final connection by Electrical Trades per Detail SD-191; conduit within walk in is not acceptable
16. Sprinkler Heads: When required, cut holes for sprinkler heads; provide stainless steel trim cap and seal holes per Article 2.7A, para. 13

B. Refrigeration System: Complete operating system
   1. Condensing Unit:
      a. General: Hermetic compressors for 1/2 h.p. and under. Scroll compressors for 3/4 h.p. and above. With Internal starting contactors and thermal overload protection; condenser fan motors of under 1 h.p. must use electronically commutated (EC) motors or permanent split capacitor-type (PSP) motors; splash lubrication system using Mobil EAL Arctic 22 polyolester synthetic refrigeration oil; oil sight glass; removable oil drain plug; label indicating oil used; high/low

pressure control; suction line filter; suction and discharge service valves and copper/brass vibration isolators; receiver with fusible plug or relief valve; liquid line shut off valve; sight glass; molecular sieve filter dryer; main power supply fused disconnect switch
   b. Air-Cooled: Air-cooled condenser with ball bearing permanently lubricated fan motor
   c. Outdoor: Galvanized steel housing; crankcase heater and low ambient temperature controls required to ensure proper and efficient operation; fan cycling controls where ambient temperatures do not fall below 15° F; head master valve and oversized, heated, insulated receiver and lines where ambient temperatures fall below 15° F
2. Evaporator: Forced convection style; match to condensing unit and suspend with air discharged parallel to the ceiling; lifetime sealed motors with inherent motor protection; evaporator fan motors of under 1 h.p. and less than 460 volts must use electronically commutated (EC) motors; enclose coil section and fans within aluminum housing
   a. Refrigerator: Air defrost
   b. Freezer and Low Temperature Refrigerator: Electric heater and controls for positive automatic defrost
   c. Installation: Hang coils per manufacturer's recommendations using plastic or nylon threaded rod; spread coil weight evenly over ceiling panels; support long span ceiling panels as required
   d. Refrigerator Drainline: Run copper drainline from evaporator to building floor drain; exit walk in as close to floor as possible; trap below coil inside of walk in; paint drainline with non-toxic paint, color to match wall panels; secure to walk-in wall
   e. Freezer and Low Temperature Refrigerator Drainline: Trap outside of walk in; wrap with Frostex heater tape, manufactured by nVent and wired for continuous "on" operation; insulate with ½" thick Armaflex, Type AP insulation; secure to walk-in wall
3. Refrigeration Lines: Interconnect evaporator to condensing unit; pipe between components as required with refrigeration grade, degreased, sealed, Type L-ACR, hard drawn copper tubing; slope horizontal runs toward condensing unit one-half inch per 10'-0" of length so that refrigerant or oil cannot drain back into evaporator from suction line; trap suction line as it exits evaporator coil; trap bottom of vertical runs of 5' 0" or more; if vertical run is 15'-0" or more, provide additional trap every 10'-0"; isolate refrigerant piping connected to compressors using copper/brass vibration isolators properly mounted at both ends; entire system cannot be exposed to atmosphere for more than (15) minutes; remove piping end caps just prior to soldering; braze all connections with Sil-Fos-15 solder; pass a continuous flow of nitrogen gas through the area being brazed or soldered; dismantle valves during soldering; clean pipe by pulling a clean cloth through its entire length; blow out piping prior to testing and insulating using dry nitrogen gas and pull a vacuum through the lines; insulate refrigeration lines with Armaflex, Type AP insulation or equal by Rubatex, ¾" thick for refrigerators and ¾" thick for freezers and low temperature refrigerators; verify acceptability of Armaflex, Rubatex or Aerocel EPDM insulation with local codes; if refrigeration lines pass through a return air plenum, use Pittsburgh Corning Foamglass, 2" thick insulation when Armaflex is unacceptable; install sections of insulation with 10"long metal guards at hanger points; support piping at intervals of 8'-0" or less based on pipe size and code requirements, using Uni-Strut channel hangers; secure piping to channel hangers using galvanized clamps with neoprene grommets separating the piping from the clamps; seal all joints and seams with Armstrong 520 adhesive; for outdoor use, cover insulation with VentureClad, 1507B, black, VentureClad line set tape (www.venturetape.com) insulate and heat trace outdoor lines where temperatures fall below -15°F; where VentureClad is not permitted by local code, provide Airex E-Flex Guard insulation.

4. Refrigeration Controls
   a. Walk-in Refrigerator: Provide demand defrost controller by KE2 Therm Industries or equal for refrigerator evaporators, one per evaporator; controller mounted on front of coil without exposed conduit and labeled as "demand defrost controller"; temperature sensors to be factory installed within evaporator; controller to include microprocessor with onboard web server allowing system parameters to be monitored remotely utilizing standard TCP/ IP protocols HTML and XML communication; liquid line solenoid valve and thermostatic expansion valve for each evaporator
   b. Walk-in Freezer and Low Temperature Refrigerator: Provide demand defrost controller by KE2 Therm Industries or equal for refrigerator evaporators, one per evaporator; controller mounted on front of coil without exposed conduit and labeled as "demand defrost controller"; temperature sensors to be factory installed within evaporator; controller to include microprocessor with onboard web server allowing system parameters to be monitored remotely utilizing standard TCP/ IP protocols HTML and XML communication; liquid line solenoid valve and thermostatic expansion valve for each evaporator; heater block-out relay to prevent heater from operating while compressor is running; heat exchanger and accumulator
   c. Remote Reach-in and Roll-in Refrigerator and Freezer Systems: Provide time clock for positive "off" cycle air defrost
5. System Operation: Complete system capable of maintaining the interior temperature specified
   a. Refrigerators: 35° F operating temperature ± 2° with a 16 18 hour running time; design to operate at 100° F ambient temperature; size evaporator for 10° TD maximum
   b. Freezers: -10° F operating temperature + 2° with an 18 hour running time; design to operate at 100° F ambient temperature; size evaporator for 10° TD maximum
   c. Low Temperature Refrigerators: 28° F. operating temperature ± 2° with a 16-18 hour running time; design to operate at 100° F ambient temperature; size evaporator for 10° TD maximum
6. Installation - see item specification condition that applies to this project
   a. Interior: Mount on 1 ½" x 1 ½" x 1/8" angle iron rack; locate racks on floor or wall as specified in manner acceptable to the Owner's Representative; paint racks with two coats of rust inhibiting paint; provide two color etched plastic nameplate identifying equipment served by each refrigeration system
   b. Exterior: Install and bolt down condensing units in location specified; coordinate requirements for mounting with Owner's Representative; roof curbs and penetrations are not in Section 11 4000
   c. Ventilation: Notify the Owner's Representative prior to installation if ventilation is not adequate
   d. Diagrams: Furnish four (4) copies of refrigeration system control wiring and piping diagrams; frame one copy in Plexiglass and mount near refrigeration system location; chain one copy of operational maintenance manuals to system rack

C. Buyout Equipment:
1. General: Coordinate adequate ventilation around all refrigeration/freezer compressors; submit written notification of any design conditions that prevent proper operation or void equipment warranty; provide supplemental fans if required for proper operation; Equipment Contractor is responsible for proper operation of equipment
2. Remote Compressor: All components, interconnections and controls to provide complete operating system; condensing unit and lines per Article 2.7, para. B; coordinate refrigerant with buyout equipment; operator accessible on/off switch with

pilot light; counter mounted compressor on slide-out channel frame; system to maintain code approved temperatures

2.8 EXHAUST HOODS

A. Construction: Fully welded; all 18 gauge Type 304 stainless steel per Article 2.2, para. B stainless steel; #4 finish including exposed rear; exterior corners fully welded, ground and polished; length and depth per plan; provide duct collar; conceal plumbing and wiring; heat sensors installed at each hood duct collar to automatically activate the exhaust fan whenever cooking operations occur.

B. Exhaust and Supply Requirements: Design for use and function at project engineered volume. Manufacturer's approved representative to measure volumes at multiple locations across the front face of the filters and average the readings and provide documentation to the consultant indicating both the measured air volumes and the design air volume at each duct collar.

C. Code Compliance: See Article 1.4.

D. Fire Damper (When Specified): Fusible link activated; Underwriters Laboratories listed; microswitch on duct collar for interwiring by Electrical Trades to shut down exhaust fan when damper is closed

E. Lights: Provide minimum (or greater) foot candle light levels as required per current FDA food code or per local code requirements; prewire in conduit to junction box on top of exhaust hood; recessed vapor proof fixtures; tempered glass diffuser; wall mounted light and fan switches provided by others.
1. LED: By hood manufacturer; suitable for grease hood; all fixtures for entire project must emit the same color.

F. Design: See item specification for designs required for this project.
1. Filter Hoods: Underwriters Laboratory classified stainless steel self- draining removable baffle filters; full length concealed self-draining trough pitched to built-in recessed stainless steel grease cup; one filter removal tool per project

G. Hood Installation
1. Mounting: Height as shown, not to exceed 7’ 0” above finished floor; free from vibration and distortion; coordinate with ceiling construction and ceiling heights; provide stainless steel hanger brackets, mounting angles and steel hanger rods
2. Trim: Conceal fasten 18 gauge stainless steel trim or enclosure panels from top of hood to ceiling
3. Interconnections: Make all plumbing and electric interconnections between adjacent sections, ready for singular final electrical and plumbing connections by respective trades

H. Performance Guarantee: Hood manufacturer guarantees that the exhaust hood will capture grease, smoke and vapor from the cooking equipment shown on the plan at the specified air volumes without the addition of end panels, extensions to the hoods or other appurtenances. If after installation, testing and balancing the hood cannot effectively capture grease, smoke and vapor, it is the responsibility of the hood manufacturer to determine the reason the hood does not capture. If the manufacturer believes it is due to a defect in the building ventilation system, the hood manufacturer must identify the defect and prove it exists to the satisfaction of the General Contractor and Consultant. If the hood manufacturer cannot prove that a defect exists, the manufacturer will pay for all costs associated with modifying the exhaust hood, ductwork, fan, controls, make-up air

system, wiring and all associated work required for the exhaust hood to capture grease, smoke and vapor from the cooking equipment.

2.9 FIRE PROTECTION SYSTEMS

A. General: The piping and detection lines built into the hood at time of fabrication include all piping, elbows, tee's, U.L. grease seals, conduit and corner pulleys for the protection of the hood plenum(s) and exhaust duct(s); fire system and components supplied by a local authorized fire protection company.

B. Code Compliance: See Article 1.4; comply with NFPA 13, 17 and 96, local codes and Underwriters Laboratory; submit shop drawings to code authorities and secure approval prior to system fabrication.

C. Systems: See item specification for system required for this project.
1. Wet Chemical: Automatic and remote manual actuation; stainless steel control cabinet; cable and conduit; manual reset relay when applicable; installation and certification by factory trained personnel; mount control cabinets at the ceiling where shown on plan without exposed piping and conduit; minimum of one remote flush mounted manual pull station per system; coordinate location with local fire authorities and Electrical Trades; provide permanent label on both pull station and hood indicating which hood is activated when pull station is used, plastic name plates with not less than 1/2" high white recessed lettering; glue one name plate adjacent pull station and second name plate directly to exhaust hood in a location visible by foodservice worker.

D. Piping: Schedule 40 black pipe and fittings; all exposed under the hood piping chrome plated with no exposed threads.

E. Nozzles at Fire Dampers: On wet chemical and dual agent systems, if hoods have fire dampers at duct collars, provide nozzles above and below fire damper; provide welded 3/8" diameter schedule 40 black iron sleeve in ductwork for nozzle above damper.

F. Gas Shut-off Valve: Automatic electrically or mechanically activated per item specifications; installed by Mechanical Trades; equip electrical gas shut-off valve with 15-second power interruption.

G. Follow-up Inspection: Include two semi-annual maintenance checkouts of the system by factory authorized personnel conforming to the recommendations as outlined in the manufacturer's specifications and manuals; include permits, drawings, and testing by authorized fire protection company as required by authority having jurisdiction

H. Warranty: See Article 1.7, para. E.

2.10 CONVEYORS - Not Used

2.11 UTILITY SERVICE REQUIREMENTS

A. General
1. Interconnections: Interconnect equipment utility lines between equipment sections to single connection point; materials consistent with specifications
2. Performance: Install heated and motor operated equipment as required for efficient and stable operation; provide additional vents, guards, deflectors and other accessories as necessary whether or not such items are called for on the drawings or specifications; show additional modifications on the Shop Drawings; notify the

Owner's representative in writing if design prevents proper operation prior to installation
3. All plumbing components must be lead-free to conform to Safe Water Drinking Act or more stringent state/local codes where applicable
4. Coordination: Verify incoming water pressure and temperature prior to equipment installation; provide written communication to Owner's Representative if conditions will adversely affect equipment operation

B. Plumbing
1. Fabricated/Manufactured Equipment
   a. Connection Access: Provide access openings for mechanical connections
   b. Piping: Install horizontal piping at the highest possible elevation and not less than 6" above floor; conceal piping; no tool marks or more than one visible thread at exposed fittings; bright polished chrome plate exposed piping and fittings
   c. Faucets: Available through Standard Plumbing Suppliers
      (1) Prep Sink:
         (a) Chicago 540-210661AB
         (b) T&S B-0230-0CS8-CR MOD B-0199-02
         (c) Component Hardware KL54-8108-SE1
      (2) General Use/Dump Sink (Splash Mounted):
         (a) Chicago 540-210664AB
         (b) T&S B-0331-CR MOD w/134X & B-0199-02
         (c) Component Hardware KL54-8101-SE1
      (3) General Use/Dump Sink (Deck Mounted):
         (a) Chicago 201-201289AB
         (b) T&S B-2854-134XA-CR
         (c) Component Hardware KL41-8101-SE1
      (4) Hand Sink (Splash Mounted):
         (a) Chicago 631-210665AB
         (b) T&S B-0230-187XWSC4
         (c) Component Hardware KL54-8100-RE4
      (5) Hand Sink (Deck Mounted):
         (a) Chicago 786-E35XKABCP
         (b) T&S B-2866-05CR-WS
         (c) Component Hardware KL84-8102-RE4
      (6) Pot and Pan Sink:
         (a) Chicago 540-218254
         (b) T&S B-0231-BB-CR
         (c) Component Hardware KL34-8012, modify with lever handle in lieu of cross
   d. Wastes: Adjust handle length when required
      (1) Drain: Component Hardware Encore QUIK-FLO Rotary Drain Model DBN-8000-SPI Capped Overflow Outlet with Flat Strainer; no equals.
      (2) Overflow: Component Hardware E50-1000; no equals
   e. Accessories/Components: Chrome plate exposed fittings
      (1) Water Inlets: Locate above the positive water level to prevent siphoning
      (2) Backflow Prevention: Where conditions require a submerged inlet, provide a code approved check valve or backflow prevention device with the fixture to prevent siphoning; provide with T & S B-0461 angle slip flanges where plumbing penetrates backsplash; set flanges so top of vacuum breaker is 4" above splash or per local code; tighten set screws and silicone to backsplash.
   f. Water Filters: Furnish 3M Water Filtration Products/Cuno or equal by Everpure complete filter assemblies for new and existing beverage and ice making equipment, steamers, combi ovens, proofers and rack ovens; individual filters for vendor furnished equipment provided by vendor; if item is not serviced through a

central water filter furnish one additional set of filter cartridges with each filter system; install in an operator accessible location and indicate on rough in drawings; meet peak water flow requirements of equipment being furnished; test water quality at site and provide filter system to meet the equipment manufacturer requirements; if manufacturers quality requirement cannot be met, provide documentation to foodservice consultant; provide permanent label on filter system, indicating equipment name of item served.

g. Gas Quick Disconnect: Dormont, Series BPQ-2SR or equal by T&S Brass; 5'-0" long with suitable length restraint to facilitate cleaning; mount restraint to prevent it lying on floor; sized to accommodate connection on equipment
h. Water Quick Disconnect: Dormont CMB37BP2Q or equal by T&S Brass Series HW; 5'-0" long or required length; sized to accommodate connection on equipment; one hose per connection.
i. Gas Pressure Reducing Valves: Furnish appropriate models in 5" to 15" water column pressure limits for installation by Mechanical Trades if not factory installed
j. Gas Fired Ranges: Provide rear gas connection and stainless steel manifold end caps unless otherwise specified
k. Indirect Wastes: Extend the following indirect wastes/drainline: condensate hood, hot and/or cold well, fabricated counter/equipment, countertop ice machines, and specified beverage equipment; all sink waste lines are by plumbing trades

C. Electrical

1. General: Underwriters' Laboratories (UL) listed and comply with National Electrical Code, Standards of National Electrical Manufacturers' Association and American Institute of Electrical and Electronics Engineers; wire, wind or construct equipment to conform to available electrical services; furnish wiring and connection diagrams with equipment; provide equipment rigid and free from objectionable vibration and noise
2. Plug in Equipment: Furnish with cords attached; match plugs to receptacles; coordinating cords and plugs are the FSEC's responsibility; modify cord to a suitable length; on mobile equipment; provide suitable length restraint to facilitate cleaning; mount restraint to prevent it lying on floor.
3. Fabricated Equipment: Prewire internally; furnish and install electric outlets and receptacles; run lines to a junction box, load center panel, starter, or disconnect switch for one final power connection by Electrical Trades; neatly tag wires showing item number, voltage characteristics and load information; interconnections between sections of fabricated counters by FSEC; furnish transformers for equipment unavailable in building electrical characteristics
   a. Built In Equipment: Install and interconnect electric controls, switches, receptacles or other units furnished separately; wire in concealed conduit to accessible junction point
   b. Motor Driven Appliances and Electric Heating Units: UL listed control switch or starter; exposed fused disconnect at motors larger than ½ hp or per code requirements; furnish line switches, fittings and connections when not part of the equipment for installation by Electrical Trades
   c. Motors: Drip-proof, splash-proof or totally enclosed type, having a continuous-duty cycle; ball bearings except small motors which may have sleeve bearings; windings impregnated to resist moisture; enclose when exposed to dust, lint, water or other matter; mount on vibration elimination pads
   d. Conduit: Code approved; conceal from view
   e. Switches and Controls: Internally wire equipment to a thermostatic control and/or on/off switch with red indicator light; locate where shown; label function with plastic nameplates with not less than ¼" high white recessed lettering, and glue to adjacent surface
   f. Cover Plates: Stainless steel

g. Outlets and Receptacles: Commercial grade ground fault interrupt outlets mounted where shown; wire to separate j-box; Commercial grade surge suppression receptacles for point of sale equipment
h. Light Fixtures: Provide ballasts and 3500° Kelvin lamps at 82 CRI (Color Rendering Index); install non-breakable sleeves or coated lamps over food areas
   (1) Wall Cabinet: Alkco, Series SS HP-100/200 Series/RSW
i. Load Center: Locate in a separate compartment; prewire electrical components built into or set on the counter to panel; conceal conduit; UL listed, three phase, four-wire with grounded copper buss; individual ground fault interrupt breakers for each service load; identify equipment serviced on each breaker; snap-in type circuit breakers with thermo magnetic quick make/quick break trip; provide circuit breakers rated at 10,000 KAIC interrupting capacity; size each breaker for 125% of the connected load; minimum of two spare 20 amp circuits; balance the loads on each phase; shunt trip breakers for items under hood; install panel in accordance with electrical codes and regulatory requirements.

PART 3 EXECUTION

3.1 SITE INSPECTION

A. Field Measurements: Field measure foodservice space prior to equipment construction; conform to finished building conditions; submit written notification to Owners Representative if building conditions prevent equipment from functioning properly.

B. Site Conditions: Verify that surfaces, prepared openings, finished building dimensions, and roughed in utilities are ready for equipment; coordinate equipment with building openings and dimensions; construct and deliver equipment in sections sized to site limitations.

C. Utilities: Verify that voltages, air volumes, water temperature and water, steam, and gas pressures are as required for equipment; coordinate changes to ensure that equipment operates properly

D. Acceptance: Beginning of installation means acceptance of site conditions.

E. Responsibility: Assume the expense of changes to equipment and/or cutting and patching walls, partitions, ceilings and floors necessary to receive and successfully operate equipment, caused by failure to coordinate with site conditions.

3.2 INSTALLATION

A. Qualifications: Minimum five years' experience in similar work, including field welding.

B. Code Compliance: Conform to current Standards and Revisions established by the National Sanitation Foundation, Ann Arbor, Michigan, and to prevailing local codes and regulations.

C. Sealing: Seal equipment that abuts a wall or other fixed equipment with silicone sealant per Article 2.2, para. C; ¼" maximum width.

D. Trim: Material to match equipment surface; trim equipment in wall openings, recesses or abutting a wall that cannot be effectively sealed with silicone; exposed fasteners are not acceptable; unacceptable as a substitute for accuracy and neatness.

E. Schedule: Comply with the Owner's construction schedule; notify the Owner's Representative in writing, not less than thirty (30) days prior to the scheduled deadline if there is a reason the schedule cannot be met.

F. Cutting and Patching: Cut and drill tops, backs, or other elements for service outlets, fixtures, and fittings; cut and patch foodservice equipment as required for equipment installation or service

G. Protection: Protect equipment from damage.

H. Damage and/or Loss: Replace or repair items that are lost or damaged prior to Owner acceptance

I. Factory Supervision: Provide factory authorized service agent supervision for installation of job-site assembled conveyors, flight-type dishmachines and pulpers; include a thorough check of utility connections, pressures and overall installation.

J. Custom Fabrication: The fabricator must conduct or approve the person/company responsible for taking field dimensions and installing their equipment.

3.3EXISTING EQUIPMENT

A. Disconnection: By appropriate trade; specified in other sections of these specifications.

B. Reused: Disassemble, if required, remove and store equipment until ready for installation; reassemble and set existing equipment in place ready for final connection; install in the same working order as when removed from service; prepare and submit a packing list identifying each piece of equipment removed and any attachments or accessories removed with it; equipment that is not in good working order should be noted; submit packing list signed by the Owner's Representative and the Section 11 4000 Contractor.

C. Not Reused: Owner's Representative has the option to retain existing equipment; authorized demolition contractor will remove and dispose; obtain written authorization from Owner's Representative to remove equipment from site.

3.4 CLEANING

A. Remove masking or protective covering from stainless steel and other finished surfaces; wash, clean and polish equipment; polish glass, plastic, hardware, accessories, fixtures and fittings prior to the inspection and acceptance of the Work. Install existing equipment in the same state as when it was removed from service.

3.5 DEMONSTRATION AND TESTING

A. Demonstration: Schedule times with the Owner's Representative to provide instruction on the maintenance and use of each item; conveyor authorized service agent to demonstrate adjustment and maintenance procedures to Owner's maintenance staff and dishroom supervisor and demonstrate pump adjustment to detergent supplier; demonstrate operation to appropriate inspectors if required; verify that copies of all instructional, operational, maintenance manuals, charts and audio and video media have been provided at least two weeks prior to demonstration as required in Article 1.5, para. G.4.

B. Testing: Test, regulate and put into proper operating condition; calibrate controls, including thermostats; coordinate dishmachine testing with detergent supplier; properly activate water filters per manufacturer's recommendations.

C. Chart of Completion: Provide separate charts for demonstration and testing; include item number, description of equipment, date, person/firm responsible, and Owner's initials; provide charts to Owner, Owner's Representative, and Consultant prior to Owner's acceptance.

3.6 ITEM SPECIFICATIONS

A. NOTE: Provide like equipment items (upright refrigeration, serving counters, display cases, kettles, and range match cooking equipment) and items that directly interface (hoods, raceways, fire protection systems/hood control panels) from same manufacturer. Provide common locks (when specified) on all equipment from same manufacturer.

B. NOTE: Field dimensions and installation must be completed by a person/company approved by the custom fabricator.

1 MOBILE WARMING CABINET
Five
Existing/No Change

2 RECEIVING CART
One
Existing/No Change

3 WALK-IN FREEZER
One
A. Existing; modify by relocating existing door or replacing door if required to location shown on Plan; add wall panel or relocate existing wall panel to replace relocation of the door; refer to Walk-in Manufacturer, Kolpak and Article 2.7, para. A. 7; verify size prior to ordering; add stainless steel coved base per Article 2.7, para. A. 6
B. Reuse utility openings in Walk-in panels where possible when replacing Refrigeration System, Item #8, seal and patch abandoned openings to match finish as needed.

4 WALK-IN REFRIGERATOR COMPLEX
One
Existing/Modify
C. Reuse utility openings in Walk-in panels where possible when replacing Refrigeration System, Item #8, seal and patch abandoned openings to match finish as needed; ; add stainless steel coved base per Article 2.7, para. A. 6

5 DRY STORAGE SHELVING
One
Existing/No Change

6 ENCLOSED COLD TRANSPORT CART
Five
Existing/No Change

7 REFRIGERATOR/FREEZER SHELVING
Three
Existing/No Change

8 RACKED REFRIGERATION SYSTEM
One
Cold Zone ET-1 or equal by RDT both w/Copeland compressor unit; Heatcraft evaporator coil or equal by HTPG *R103
A. Features: Properly sized outdoor, air-cooled racked refrigeration system to serve Items #3, Walk-in Freezer with 75% redundancy and Item #4, Walk-in Refrigerator Complex; properly sized evaporator coils; system equipped and installed per Article 2.7B (demand defrost system without time clock)
B. Rack: Mount individual systems, pre-piped with dual pressure control, liquid line, filter dryer and sight glass; mount on factory assembled steel frame; prewired electrical load center panel with individual circuit breakers and contactors for each system; main disconnect all accessories for single point final utility connections; construct rack with adequate service access and clearance to load center panel and size rack to allow 3 foot minimum aisle at front and end with load center panel
C. Installation: By Manufacturer's authorized installer; coordinate ventilation requirements to provide adequate ventilation
D. **Existing Refrigeration/Freezer Systems: Evacuate and dispose of refrigerant per code; remove condensing unit, evaporator coil, refrigerant piping, coil drainlines and associated insulation and fasteners; verify components to be retained by Owner (if any); remove and properly dispose of all others from site**
E. Electrical: 208V, 3 phase (compressors)
120V, 1 phase (evaporator coil)
208V, 1 phase (evaporator coil)

9 HIGH DENSITY SHELVING
Two
Metro Industries Metro Max High Density Shelving *R103
A. Features: MetroMax Top Track Storage System; two stationary end units 24” x 48” with 86" high MetroMax i polymer posts, mobile unit kits 21” x 48” with 74" high MetroMax i polymer posts, including casters, per Plan; four MetroMax Q reinforced polypropylene open grid shelves per section; two track sets per Plan; 36" nominal aisle size or per Plan
B. Installation: Verify that units fit within finished wall dimensions; assemble with bottom shelves 10" above floor or per local health code requirements

10 HIGH DENSITY SHELVING
One
Metro Industries Top Track High-Density Super Erecta Shelving *R103
A. Features: Top track high density chrome shelving system, size and shape shown on Plan; five chrome wire shelves on all stationary and mobile units; two stationary end units with 86" high chrome posts; five mobile unit kits with 74" high chrome posts; one track set, length per Plan; 36" nominal aisle size or per Plan
B. Installation: Verify that units fit within finished wall dimensions; assemble with bottom shelves 10" above floor or per local health code requirements

11A ICE BIN
One
Hoshizaki Model B-500-SF *R103
Features: Stainless steel exterior, 500 pounds storage capacity; non-corrosive bin liner; foamed-in-place polyurethane insulation; 6" high stainless steel legs; verify bin adaptor required to accommodate existing ice maker, Item #11B

11B ICE MAKER
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings; modify by replacing Ice Bin with Item #11A

12 DUNNAGE SHELF
Three
Existing/No Change

13 FLOOR TROUGH
One
IMC Teddy Model FWR with SG-ADA grating or equal by Gates *R103
A. Features: All components fully welded; stainless steel water receptacle floor trough with continuously welded stainless steel seepage flange and weep holes to capture overflow, size and position per Plan; provide optional stainless steel beehive strainer; built-in pitch towards waste; Type 316 stainless steel waste outlet; SG-ADA grating, with 7/16" clearance between each bar; 304 stainless steel grating construction with 3/16" x 1" high bars and 1/2" stabilizer rods welded at each joint; provide shop drawing
B. Installation: Coordinate location of waste outlets with Mechanical Contractor; furnish trough assembly to Mechanical for installation; trough must be flush with finished floor; proper location of the trough is the responsibility of the FSEC

14 MOBILE RACK
Eight
Existing/No Change

15 OPEN NUMBER

16 DUNNAGE RACK
Three
Existing; Owner to relocate to position shown on Plan

17 DRY STORAGE SHELVING
Eight
Existing; Owner to relocate to position shown on Plan

18A AIR CURTAIN
Two
Existing/No Change

18B AIR CURTAIN
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings; unit to be removed from location in order to replace Walk-in Freezer Door, Item
#3

19 UTILITY CART
Two
Existing; Owner to relocate to position shown on Plan

20 UTENSIL RACK
One
Existing/No Change

21 VEGETABLE PREP COUNTER W/SINKS
One
Existing/No Change

22 DISPOSER W/SPRAY RINSE
One
Existing/No Change

23 WALL HUNG SHELVING
One
Existing/No Change

24 SHEET PAN DOLLY
Two
Existing/No Change

25 HAND SINK
Five
John Boos Model PBHS-W-1410-8OC or equal by Advance Tabco Model 7-PS-70 MOD *R103
A. Features: Stainless steel construction; 7" high integral backsplash; chrome-plated P-trap, wall-mounting bracket; strainer-type waste; stainless steel side supports; provide splash-mount hand sink faucet per Article 2.11B; faucet holes on 8" centers; add welded side splashes if required by code
B. Installation: Mount 34" above floor

26 MOBILE WORKTABLE
One
Existing/No Change

27 MOBILE WORKTABLE
One
Existing/No Change

28-46 OPEN NUMBERS

47 POT & PAN SINK
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings

48 DISPOSER W/SPRAY RINSE
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings

49 OPEN NUMBER

50 OPEN NUMBER

51 WALL HUNG SHELVING
One
Existing/No Change

52 OPEN NUMBER

53 OPEN NUMBER

54 PAN STORAGE SHELVING
Three
Existing/No Change

55 OPEN NUMBER

56 OPEN NUMBER

57A COMBI OVEN, 2-SEC.
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings

57B WATER FILTRATION SYSTEM
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings

58 CONVECTION OVEN, 2-SEC.
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings

59-67 OPEN NUMBERS

68 60 QUART MIXER
One
Existing; relocate to position shown on Plan; FSEC to verify utilities and include utility requirements on rough-in drawings

69 OPEN NUMBER

70 OPEN NUMBER

71 EXHAUST HOOD (TYPE I)
One
Accurex Model XXDW or equal by Captive Aire ND-2 *R103

A. Features: Filter-type hood; 24" high canopy; double shell front; fully insulated hood to meet UL710 zero clearance requirements; without fire damper; one filter removal tool per project; recessed LED lights; stainless steel Xtractor filters, or equal; equipped per Article 2.8; exhaust air balancing baffle; heat sensors installed at each hood duct collar to automatically activate the exhaust fan whenever cooking operations occur (wiring to fan by Electrical Trades)
B. Size: Per Plan
C. Exhaust Requirements: The project was designed based on the exhaust air volumes listed below:
D. Exhaust: Two duct collars, each measuring 12" x 10" for a total of 2500 CFM at 0.496" static pressure
E. Hood must comply with code authority requirements, properly ventilate the cooking equipment beneath it and be compatible with the building ventilation systems; see mechanical engineer's drawings for further requirements; FSEC to provide stickers on all sides stating-PENETRATION WITH ANY FASTENERS VIOLATES AGENCY LISTINGS

F. Fire Protection: See Item #73
Constant Volume Control Panel: See Item #75
G. Installation: Mount bottom edge of hood, per Elevation; remote touch pad for fan and light control mounted in Owner accessible location
H. Electrical: 120V, 1 phase

72 STAINLESS STEEL WALL PANEL
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and SD-38
B. Features: 18 gauge continuous stainless steel panel, Rigidized Metal, pattern Sand-Tex or equal by Rimex, pattern Metal Sandstar; stainless steel sheet to extend from 6" AFF, coordinate with height of floor covering, to bottom edge of hood; conceal fasten to wall and seal perimeter; neatly finish utility openings with escutcheon covers; maximize size of sheets used

73 FIRE PROTECTION SYSTEM
One
Ansul R-102 System or equal by Pyro-Chem or Range Guard *R103
A. Features: Wet chemical fire protection system per Article 2.9 to protect exhaust hood, Item #71 and the equipment below; automatic mechanically activated gas shut-off valve; remote manual pull station; coordinate shape of empty J-box in wall (with empty conduit) by Electrical for remote pull by FSEC, and coordinate location with local fire authorities and Electrical Trades; all conduit to be inside wall; tanks and nozzles per UL 300; stainless steel cabinet; provide wet chemical tanks properly sized to fit within 30" high stainless steel cabinet
B. Testing: Provide system pre-test by factory authorized personnel to ensure proper operation prior to final test by Fire Marshal
C. Electrical: 120V, 1 phase

74A ROLL-IN COMBI OVEN
One
Rational Model ICP 20-Full NG 208V 1 PH (LM100GG) *R103
A. Features: Stainless steel finish; natural gas operation; 6 Operating Modes; 5 Cooking Methods; 3 Manual Operating Modes; intelligent cooking system; accommodates (20) 18" x 26" sheet pans or (40) 12" x 20" steam table pans; includes mobile oven rack with (10) stainless steel grids; left door hinge, per Plan; triple glass pane cooking door with rear ventilation; 85 degree F - 572 degree F temperature range; self-deliming Care Control; quick clean, care control and eco mode; 6-point core temperature probe; integrated retractable hand shower; LED lighting; Ethernet interface and Wi-Fi enabled; HACCP data storage and output via USB; (9) cleaning programs including Quick Clean, Standard or Eco modes; includes (1) bucket each cleaner and care tabs; programming up to 1,200 cooking programs with up to 12 steps; power steam function; integrated, maintenance-free grease separation; cool-down function; digital temperature display; mobile base frame (60.22.496); no-charge 4-hour Rational certified chef assistance program; at Rational commissioning, authorized service agent is to adjust drain water output temperature to reach a maximum of 140 degrees F; provide Rational Certified Installation; internal gas pressure regulator; Installation Kit to include gas quick disconnect hose with restraining chain and quick disconnect water connections per Article 2.11B; test water quality at site and provide water filter per Manufacturer's recommendation and Article 2.11B; height adjustable feet
B. Electrical: 208V, 1 phase

74B WATER FILTRATION SYSTEM
One
Rational Model R295-CL *R103
A. Features: Water filtration system with sediment, chloramines, chlorine, taste and odor reduction per Article 2.11B; provide one additional set of filter cartridges; filtration system properly sized per Article 2.11B to accommodate Item #74A
B. Installation: Mount where indicated as close to the ceiling as possible to minimize exposed piping; coordinate system installation requirements with Mechanical

74C BUMPER GUARD
One
Fabricate; construct per Plan, Part 2-Products, Elevation and SD-216; provide shop drawing

75 EXHAUST HOOD CONTROL PANEL
One
Accurex Model XKC-CV Constant Control Panel or equal by Captive Aire *R103
A. Features: Includes control system; fan starters; temperature sensors; touchscreen, shipped loose (50' of cable); (1) exhaust fan; hood light control; exhaust fan to run at maximum speed in fire mode
B. Electrical: 208V, 1 phase

76 WORKCOUNTER W/SINKS & OVERSHELF
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (5) 120V, 1 phase

77 MOBILE TRASH BIN
Two
Existing; Owner to relocate to position shown on Plan

78 ROLL-THRU REFRIGERATOR, 2-SEC.
One
Traulsen Model ARI232HPUT-FHS or equal by Victory Ultra Spec Series, True Spec Series or Continental Designer Line *R103
A. Features: Roll-thru model; stainless steel exterior; aluminum interior; stainless steel thermal breaks and cart ramps; 20 gauge stainless steel, self-closing door, hinged per Plan; built-in digital thermometer; automatically activated interior lights; self-contained refrigeration; automatic hot gas condensate evaporator; common door locks with other upright refrigeration on this project; must accommodate two 72" high mobile racks, Item #14; seal, continuous closed ends stainless steel ramps to floor
B. Electrical: 120V, 1 phase; cord and plug

79 OPEN NUMBER

80 OPEN NUMBER

81 MOBILE TRAY DISPENSER
Three
Custom Fabricate or equal by Piper Products Model D160-33 *R103
Fabricate; construct per Plan, Part 2 - Products and SD-127; Piper Product Model to be clad with plastic laminate to match counters & include bumpers on this project; coordinate

exact dimensions with Owner's tray size; PL2 Laminate – Wilsonart Charcoal Velvet #15504-31, traceless laminate with traceless finish; provide shop drawing

82 SERVING COUNTER
One
A. Fabricate; construct per Plan, Part 2-Products, Elevations and Standard Details
B. Electrical: 120/208V, 3 phase; load center panel

83 PROTECTOR SHELF SYSTEM
One
BSI, LLC Z-Guard Model ZG9915/ZG9930 or equal by ACS Fab or Premier Metal & Glass *R103
A. Features: 1" round diameter tubing; brushed stainless steel finish on all components including housing; 3/8" tempered, rounded glass panels on adjustable brackets; 1" radius corners; 14" angled front glass panel; front glass adjustable knobs positioned to face Operator side of counter; 15" horizontal top glass panel; top clips or brackets; common posts; stacked brackets; modify with 15" deep square end panels; position end panels on far ends only; 14" O.C. front to rear post dimension at end supports; LED lights (Model 2580) or equal Manufacturer on entire system; Stealth heat and light combo (Model 605) or equal Manufacturer centered over Items #84 (2) & #86; (3) remote on/off switch and infinite controller; heavy-duty flange undercounter mount (SSU3); 20-1/2" post height above counter; 8" minimum undercounter mount extension, welded to cabinet framework
B. Electrical: (3) 208V, 1 phase; (3) 120V, 1 phase

84 HOT/COLD PAN, 4-WELL
Two
Low Temp Industries Model DI-QSCHP-4H MOD *R103
A. Features: Stainless steel construction; fully welded and insulated pan; self-contained refrigeration system; thermal break between top and refrigerated interior; individually controlled wells; 500 watt heating system per well; wet or dry use; remote control panel with 30" wip, mount in apron of counter with hugged edge per Elevation; accommodates four 12" x 20" pans; removable divider bars; manifold individual well drains to a single drain connection, FSEC to extend to floor drain; provide loose brass ball valves for installation by FSEC; provide flat flange with hugged edge; modify flange width to cover counter thermal break; verify location and direction of condenser to ensure proper ventilation and serviceability; provide muffin fans as needed for proper ventilation; ship unit to Fabricator for installation coordination; two year parts and labor warranty
B. Modify with 6" flange between center 2 wells, per Plan; for use with Protector Shelf, Items #83 & #89; provide shop drawing
C. Electrical: 120/208V, 1 phase; cord and plug

85 HOT/COLD PAN, 1-WELL
Two
Low Temp Industries Model DI-QSCHP-1H *R103
A. Features: Stainless steel construction; fully welded and insulated pan; self-contained refrigeration system; thermal break between top and refrigerated interior; individually controlled well; 500 watt heating system; wet or dry use; remote control panel with 30" wip, mount in apron of counter with hugged edge per Elevation; accommodates one 12" x 20" pans; removable divider bars; individual well drain, FSEC to extend to floor drain; provide loose brass ball valves for installation by FSEC; provide flat flange with hugged edge; modify flange width to cover counter thermal break; verify location and direction of condenser to ensure proper ventilation and serviceability; provide muffin fans as

needed for proper ventilation; ship unit to Fabricator for installation coordination; two year parts and labor warranty

B. Electrical: 120/208V, 1 phase; cord and plug

86 HOT/COLD PAN, 3-WELL
Two
Low Temp Industries Model DI-QSCHP-3H *R103

A. Features: Stainless steel construction; fully welded and insulated pan; self-contained refrigeration system; thermal break between top and refrigerated interior; individually controlled wells; 500 watt heating system per well; wet or dry use; remote control panel with 30" wip, mount in apron of counter with hugged edge per Elevation; accommodates three 12" x 20" pans; manifold individual well drains to a single drain connection, FSEC to extend to floor drain; provide loose brass ball valves for installation by FSEC; provide flat flange with hugged edge; modify flange width to cover counter thermal break; verify location and direction of condenser to ensure proper ventilation and serviceability; provide muffin fans as needed for proper ventilation; ship unit to Fabricator for installation coordination; two year parts and labor warranty

B. Electrical: 120/208V, 1 phase; cord and plug

87 MOBILE WARMING CABINET
Three
Metro Industries Model C587-SFS-U or equal by Food Warming Equipment *R103

A. Features: Stainless steel exterior and interior; insulated holding cabinet; ¾ height; full length, hinged solid insulated door; dual magnetic door latch with mechanical release; 1950 watt heating system; 70-200 degree F operating temperature; ducted heating system; adjustable thermostatic controls; digital thermometer; top mounted controls; corner bumper/drip trough; water pan; four swivel casters, front with brakes; cord wrap standard; 14 adjustable universal angle slides to accommodate 18" x 26" sheet pans and 12" x 20" steam pan

B. Electrical: 120V, 1 phase; cord and plug

88 SERVING COUNTER
One

A. Fabricate; construct per Plan, Part 2-Products, Elevations and Standard Details

B. Electrical: 120/208V, 3 phase; load center panel

89 PROTECTOR SHELF SYSTEM
One
BSI, LLC Z-Guard Model ZG9915/ZG9930 or equal by ACS Fab or Premier Metal & Glass *R103

A. Features: 1" round diameter tubing; brushed stainless steel finish on all components including housing; 3/8" tempered, rounded glass panels on adjustable brackets; 1" radius corners; 14" angled front glass panel; front glass adjustable knobs positioned to face Operator side of counter; 15" horizontal top glass panel; top clips or brackets; common posts; stacked brackets; modify with 15" deep square end panels; position end panels on far ends only; 14" O.C. front to rear post dimension at end supports; LED lights (Model 2580) or equal Manufacturer on entire system; Stealth heat and light combo (Model 605) or equal Manufacturer centered over Items #84 (2) & #86; (3) remote on/off switch and infinite controller; heavy-duty flange undercounter mount (SSU3); 20-1/2" post height above counter; 8" minimum undercounter mount extension, welded to cabinet framework

B. Electrical: (3) 208V, 1 phase; (3) 120V, 1 phase

90 OPEN NUMBER

91 DROP-IN COLD PAN, 2-WELL
Two
Low Temp Industries Temp-est Aire Model DI-2025TA-H *R103
A. Features: Circulating cold air refrigerated drop-in cold pan; stainless steel construction; fully insulated; self-contained condensing unit; one fan; stainless steel drain with strainer; FSEC to extend to floor drain; accommodates two 12" x 20" pans; standard depth model; removable divider bars; remote on/off/thermostatic controls mounted in counter per Elevation; provide flat flange with hugged edge; verify location and direction of condenser to ensure proper ventilation and serviceability; provide muffin fans as needed for proper ventilation; ship unit to Fabricator for installation coordination
B. Electrical: 120V, 1 phase; cord and plug

92 DROP-IN COLD PAN, 3-WELL
Two
Low Temp Industries Temp-est Aire Model DI-2037TAH *R103
A. Features: Circulating cold air refrigerated drop-in cold pan; stainless steel construction; fully insulated; self-contained condensing unit; one fan; stainless steel drain with strainer; FSEC to extend to floor drain; accommodates three 12" x 20" pans; standard depth model; removable divider bars; remote on/off/thermostatic controls mounted in counter per Elevation; provide flat flange with hugged edge; verify location and direction of condenser to ensure proper ventilation and serviceability; provide muffin fans as needed for proper ventilation; ship unit to Fabricator for installation coordination
B. Electrical: 120V, 1 phase; cord and plug

93 REFRIGERATED DISPLAY CASE
Four
Structural Concepts Model HMO3953R Harmony *R103
A. Features: Self-service refrigerated display case; self-contained Breeze refrigeration; Clean Sweep coil cleaner; energy efficient evaporator fans; plastic laminate exterior including front, top and solid end panels, color as selected by Architect; clear glass rear sliding doors; black interior and trim; retractable, non-locking night curtain; full end panels with mirror interior; LED 3500K top light and clear glass, lighted shelves; condensate pan; rear air intake, front discharge; low profile casters with levelers; PL2 Laminate – Wilsonart Charcoal Velvet #15504-31, traceless laminate with traceless finish; provide shop drawing for approval prior to fabrication
B. Electrical: 120V, 1 phase; cord and plug

94 SNACK SHELVING
Two
Metro Industries Super Erecta Qwik Slot Shelving *R103
A. Features: Shelf width and length as shown on Plan; standard Super Erecta top/bottom shelves; five adjustable qwik-slot drop-mat shelves per section; 63" high posts; 1" high shelf ledge on front of each shelf; black color on all components; (4) 5" casters with brakes, remove donut bumpers
B. Installation: Assemble with bottom shelf 10" above floor

95 OPEN NUMBER

96 MOBILE CASHIER STAND
One
Custom Fabricate; construct per Plan, Part 2-Products and Standard Detail SD-123 *R103
Electrical: 120V, 1 phase; cord and plug

97 FLATWARE DISPENSER
Two
Dispense-Rite Model CTSH-6BT *R103
Features: Countertop unit; durable polystyrene construction; 6 compartment; 13" x 10⅛" x 15⅜"; includes drop-in silverware holder inserts

98 P.O.S. SYSTEM
Three
This item is by Owner and is not in the 11 4000 Contract; FSEC to verify utilities and include utility requirements on rough-in drawings

99 OPEN NUMBER

100 UNDERMOUNT UTILITY SINK
One
Elkay Model ELUH141810PD or equal by Custom Fabricate *R103
Features: Stainless steel construction; single bowl; undermount sink; perfect drain with strainer; sound deadening; mounting hardware; faucet holes to accommodate deck-mounted general use faucet per Article 2.11B

101 A LA CARTE COUNTER
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: 120V, 1 phase

102 NOVELTY ICE CREAM DISPLAY
One
Silver King Model SKFDI23-ELUS1 *R103
A. Features: Drop-in display freezer; insulated Plexiglas lid; stainless steel interior with coved corners; 15-20 dozen ice cream novelty capacity; self-contained refrigeration; temperature control knob; FSEC to ensure controls are easily accessible for Operator
B. Electrical: 120V, 1 phase; cord and plug

103 FROZEN DRINK MACHINE
One
This item is by Owner's Vendor and is not in the 11 4000 Contract; FSEC to verify utilities and include utility requirements on rough-in drawings

104 REACH-IN REFRIGERATOR, 1-SEC
One
Traulsen Model AHT132WUT-HHS or equal by Victory Ultra Spec Series, True Spec Series or Continental Designer Line *R103
A. Features: Stainless steel exterior; aluminum interior; stainless steel thermal break; 20 gauge stainless steel, self-closing, half-height doors, hinged per Plan; built-in digital thermometer; automatically activated interior lights; self-contained refrigeration; automatic hot gas condensate evaporator; common door locks with other upright refrigeration on this project; 6” diameter casters, front two with brakes; five coated wire shelves
B. Electrical: 120V, 1 phase; cord and plug

105 OPEN NUMBER

106 MOBILE WORKTABLE
One
Advance Tabco Model SS-306 or equal by Eagle Group or Custom Fabricate *R103
Features: Length and width per Plan; 36" high; 14 gauge stainless steel top and understructure; stainless steel adjustable undershelf; stainless steel legs and underbracing; rolled rim edge; paint on sound deadening under top; four 5" diameter swivel casters, all with brakes

107 WALL SHELF
One
Fabricate, construct per Plan, Part 2-Products, Elevation and Standard Detail

108 REACH-IN FREEZER, 1-SEC.
One
Traulsen Model ALT132WUT-HHS or equal by Victory Ultra Spec Series, True Spec Series or Continental Designer Line *R103
A. Features: Stainless steel exterior; aluminum interior; stainless steel thermal break; 20 gauge stainless steel, self-closing, half-height doors, hinged per Plan; built-in digital thermometer; automatically activated interior lights; self-contained refrigeration; automatic hot gas condensate evaporator; automatic defrost; common door locks with other upright refrigeration on this project; 6” diameter casters, front two with brakes; five coated wire shelves
B. Electrical: 120V, 1 phase; cord and plug

109 OPEN NUMBER

110 OPEN NUMBER

111 SOILED DISHTABLE
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details

112 WASTE COLLECTOR
One
Salvajor Model S419 *R103
A. Features: Stainless steel exterior trough connection per Plan; 3/4 HP pump motor; water saving control with LCD readout; control panel mounted per Plan; tableware salvage basin; perforated scrap basket; weld into dishtable; one water diffusers and two gusher heads
B. Electrical: 120V, 1 phase

113 SPRAY RINSE
One
Component Hardware PowerPulse Model KLP53-11L4-BR *R103
Features: Flexible stainless steel hose with strain relief; ceramic cartridge; chrome-plated spring; insulated hose grip; wall mounting bracket

114 EXHAUST DUCT RISER
Two
A. Fabricate; construct per Plan, Part 2-Products and Elevation
B. Features: 18 gauge stainless steel vapor-proof welded construction; extend riser to 6" above finished ceiling, include stainless steel trim flange at ceiling
C. Installation: Install on dishmachine per Manufacturer's instructions

115 OPEN NUMBER

116 DISHMACHINE W/BOOSTER HEATER
One
Hobart Model CL64eN-BAS *R103
A. Features: Two tank conveyor type dishmachine; stainless steel front panel, frame, feet and legs; energy saver mode; pot and pan dwell mode; direction of operation per Plan; stainless steel wash arms; automatic fill; automatic timer; stainless steel pump and impeller; door actuated drain closer; insulated hinged double doors with door interlock switches; top mounted micro-processor control module; motor overload protection; electric tank heat; integral stainless steel pressureless electrical booster heater, properly sized to provide 180 degree F final rinse to dishmachine, FSEC to verify incoming water temperature prior to ordering; common drain manifold; common water connection; water hammer arrestor kit; common/single point electrical connection including booster heater; stainless steel vent hoods at load and unload end; vent fan control; set of stainless steel splash shields; provide two bun pan racks for use with 18x26 sheet pans, four each 20" x 20" peg racks and 20" x 20" combination racks; table limit switch, position as shown, other trades to interwire back to dishmachine; coordinate with Mechanical Trades to provide maximum 25 psi. water pressure to dishmachine; drain water tempering kit
B. Electrical: 480V, 3 phase

117 FLOOR TROUGH
One
IMC Teddy Model FWR with SG-ADA grating or equal by Gates *R103
A. Features: All components fully welded; stainless steel water receptacle floor trough with continuously welded stainless steel seepage flange and weep holes to capture overflow, size and position per Plan; provide optional stainless steel beehive strainer; built-in pitch towards waste; Type 316 stainless steel waste outlet; SG-ADA grating, with 7/16" clearance between each bar; 304 stainless steel grating construction with 3/16" x 1" high bars and 1/2" stabilizer rods welded at each joint; provide shop drawing
B. Installation: Coordinate location of waste outlets with Mechanical Contractor; furnish trough assembly to Mechanical for installation; trough must be flush with finished floor; proper location of the trough is the responsibility of the FSEC

118 CLEAN DISHTABLE
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details

119 WALL SHELF
One
Fabricate, construct per Plan, Part 2-Products, Elevation and Standard Detail

120 OPEN NUMBER

121 HOSE REEL
One
T & S Brass Model B-7133-U03WS5 *R103
A. Features: Retractable hose reel with open reel; stainless steel rear trigger water gun MV-2516-34 with adapter 019653-40, rubber cover and swivel; 35' of 1/2" rubber hose; T&S Model B-2339-LR Reel Control Cabinet, with control valve, dual check valves, thermometer and hammer arrestor; shut-off valve; 8.09 GPM; code approved backflow preventer by Mechanical Trades; volume control and coupling; stainless steel wall/ceiling-mount swivel bracket; spray valve B-0108-H; Spray valve B-0107

B. Installation: Furnish components to Mechanical for installation, coordinate plumbing requirements so that all piping is concealed in wall; mounting height per detail

122 EYE/FACE WASH STATION
One
Guardian Equipment GBF1735DP *R103
A. Features: Stainless steel recessed cabinet; swing down eye/face wash unit; two spray heads; built-in flow control; stainless steel drain pan; thermostatic mixing valve; universal emergency eyewash sign; spray heads automatically activated when unit is pulled open; Model G6024.1L6 recessed thermostatic mixing valve; 2-year warranty
B. Installation: Install flush in wall with exterior panic bar at 48" maximum above finished floor for operation with spray heads at 34" above finished floor; coordinate wall opening requirements with Architectural Trade

123-199 OPEN NUMBERS

200 REACH-IN FREEZER, 2-SEC.
One
Traulsen Model ALT232WUT-HHS or equal by Victory Ultra Spec Series, True Spec Series or Continental Designer Line *R103
A. Features: Stainless steel exterior; aluminum interior; stainless steel thermal break; automatic hot gas condensate evaporator; automatic defrost; built-in digital thermometer; 20 gauge stainless steel, self-closing half-height doors, hinged per Plan; automatically activated interior lights; common door locks with other upright refrigeration on this project; 6” high casters, front two with brakes; five coated wire shelves per section
B. Electrical: 120V, 1 phase; cord and plug

201 REACH-IN REFRIGERATOR, 2-SEC.
Two
Traulsen Model AHT232WUT-HHS or equal by Victory Ultra Spec Series, True Spec Series or Continental Designer Line *R103
A. Features: Stainless steel exterior, aluminum interior; stainless steel thermal breaks; 20 gauge stainless steel, self-closing, half-height doors, hinged per Plan; built-in digital thermometer; automatically activated interior lights; self-contained refrigeration; automatic hot gas condensate evaporator; common door locks with other upright refrigeration on this project; 6” high casters, front two with brakes; five coated wire shelves per section
B. Electrical: 120V, 1 phase; cord and plug

202 EYE/FACE WASH STATION
One
Guardian Equipment GBF1735DP *R103
A. Features: Stainless steel recessed cabinet; swing down eye/face wash unit; two spray heads; built-in flow control; stainless steel drain pan; thermostatic mixing valve; universal emergency eyewash sign; spray heads automatically activated when unit is pulled open; Model G6024.1L6 recessed thermostatic mixing valve; 2-year warranty
B. Installation: Install flush in wall with exterior panic bar at 48" maximum above finished floor for operation with spray heads at 34" above finished floor; coordinate wall opening requirements with Architectural Trade

203 LAUNDRY SINK
One
John Boos Model 1B18244 or equal by Advance Tabco or Custom Fabrication *R103
Features: 16 gauge stainless steel construction; 14" deep bowl; coved corners; 10" high full length backsplash; bullnosed outside corners; stainless steel legs, bracing and gussets; 1" adjustable bullet feet; faucet holes for one faucet on 8" centers; provide sink faucet per Article 2.11B; rotary handle drain lever

204 WASHER
One
This item is by Owner and is not in the 11 4000 Contract; FSEC to verify utilities and include utility requirements on rough-in drawings

205 OPEN NUMBER

206 DRYER
One
This item is by Owner and is not in the 11 4000 Contract; FSEC to verify utilities and include utility requirements on rough-in drawings

207 HAND SINK
Five
John Boos Model PBHS-W-1410-8OC or equal by Advance Tabco Model 7-PS-70 MOD *R103
A. Features: Stainless steel construction; 7" high integral backsplash; chrome-plated P-trap, wall-mounting bracket; strainer-type waste; stainless steel side supports; provide splash-mount hand sink faucet per Article 2.11B; faucet holes on 8" centers; add welded side splashes if required by code
B. Installation: Mount 34" above floor

208 POT & PAN SINK
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details

209 WALL SHELF
One
Fabricate, construct per Plan, Part 2-Products, Elevation and Standard Detail

210 FLOOR TROUGH
One
IMC Teddy Model FWR with SG-ADA grating or equal by Gates *R103
A. Features: All components fully welded; stainless steel water receptacle floor trough with continuously welded stainless steel seepage flange and weep holes to capture overflow, size and position per Plan; provide optional stainless steel beehive strainer; built-in pitch towards waste; Type 316 stainless steel waste outlet; SG-ADA grating, with 7/16" clearance between each bar; 304 stainless steel grating construction with 3/16" x 1" high bars and 1/2" stabilizer rods welded at each joint; provide shop drawing
B. Installation: Coordinate location of waste outlets with Mechanical Contractor; furnish trough assembly to Mechanical for installation; trough must be flush with finished floor; proper location of the trough is the responsibility of the FSEC

211 MOBILE TRASH BIN
Four
This item is by Owner and is not in the 11 4000 Contract

212 PAN STORAGE SHELVING
Two
Metro Industries MetroMax Q Shelving *R103
A. Features: Shelves width and length shown on Plan; four reinforced polypropylene open grid shelves per section; 74" high MetroMax i polymer posts; 5" diameter polyurethane casters, delete donut bumpers
B. Installation: Verify that units fit within finished wall dimensions; assemble with bottom shelf 10" above floor or per local health code requirements

213 ICE MAKER W/BIN
One
Manitowoc Model UYF-0190A *R103
A. Features: Stainless steel exterior; 140 pound ice production capacity per 24 hours; 90 pound storage bin; air-cooled condensing unit; half-dice cube or equivalent; 6" high stainless steel adjustable legs; slide up, tuck under bin door; front breathing; luminice growth inhibitor with replacement bulb; water filter Model AR-10000, per Article 2.11B
B. Electrical: 120V, 1 phase; cord & plug

214 DRY STORAGE SHELVING
Seven
Metro Industries Super Adjustable Super Erecta Shelving or equal by Eagle Group *R103
A. Features: Shelves width and length shown on Plan; five chrome wire shelves per section; 74" high chrome posts; no common posts; 5" diameter polyurethane casters, delete donut bumpers
B. Installation: Verify that units fit within finished wall dimensions; assemble with bottom shelf 10" above floor or per local health code requirements

215 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

216 REACH-IN FREEZER, 1-SEC.
One
Traulsen Model ALT132WUT-HHS or equal by Victory Ultra Spec Series, True Spec Series or Continental Designer Line *R103
A. Features: Stainless steel exterior; aluminum interior; stainless steel thermal break; 20 gauge stainless steel, self-closing, half-height doors, hinged per Plan; built-in digital thermometer; automatically activated interior lights; self-contained refrigeration; automatic hot gas condensate evaporator; automatic defrost; common door locks with other upright refrigeration on this project; 6” high casters, front two with brakes; five coated wire shelves
B. Electrical: 120V, 1 phase; cord and plug

217 WORKCOUNTER W/SINKS
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (3) 120V, 1 phase

218 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

219 UNDERCOUNTER DISHMACHINE
One
Hobart Model LXeR *R103
A. Features: Stainless steel undercounter dishmachine; electric tank heat; steam elimination and energy recovery; 13-30 racks per hour capacity, custom cycle selection; hot water sanitation; solid state controls; 17" high interior chamber; dual upper and lower wash arms; top-mounted slide-out controls; removable stainless steel scrap basket; door interlock switch; automatic fill; automatic pumped drain; fresh water rinse; built-in booster heater, adequately sized to provide a minimum final rinse temperature of 180 degrees F, FSEC to verify incoming water temperature prior to ordering; detergent and rinse aid pumps; chemical pump prime; service diagnostics; delime notification; low chemical alert; one peg and one combination rack; chemical bottles located to right of unit; drain water tempering kit; power cord kit; coordinate chemical and detergent pump connections with chemical supplier; must fit under counter; flexible plumbing connections by Mechanical; skid/leg assembly to allow unit to be easily moved; FSEC to coordinate maximum 25 psi. water pressure to dishmachine
B. Electrical: 120/208V, 1 phase; cord and plug

220 OPEN NUMBER

221 OPEN NUMBER

222 DISPOSER
Two
In-Sink-Erator SS-100-7-CC-101 or equal by Salvajor *R103
A. Features: Stainless steel and chrome exterior; 1 HP motor; CC-101 control with forward, stop and reverse buttons; #7 collar adaptor; vacuum breaker with angle flanges per Article 2.11B; solenoid valve, flow control valve
B. Electrical: 208V, 1 phase

223 SPRAY RINSE
Two
Component Hardware PowerPulse Model KLP53-11L4-BR *R103
Features: Flexible stainless steel hose with strain relief; ceramic cartridge; chrome-plated spring; insulated hose grip; wall mounting bracket

224 OPEN NUMBER

225 OPEN NUMBER

226 DEMONSTRATION COUNTER
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (4) 120V, 1 phase

227 EXHAUST HOOD, ISLAND (TYPE I)
One
Accurex Model XXDW or equal by Captive Aire ND-2 *R103
A. Features: Filter-type hood; 24" high canopy; double shell front; fully insulated hood to meet UL710 zero clearance requirements; without fire damper; one filter removal tool per project; recessed LED lights; stainless steel Xtractor filters, or equal; equipped per Article 2.8; exhaust air balancing baffle; heat sensors installed at each hood duct collar to automatically activate the exhaust fan

whenever cooking operations occur (wiring to fan by Electrical Trades); right utility cabinet, controls to face instructor

B. Size: Per Plan

C. Exhaust Requirements: The project was designed based on the exhaust air volumes listed below:

D. Exhaust: One duct collar measuring 21" x 10" at 2200 CFM at 1.159" static pressure

E. Hood must comply with code authority requirements, properly ventilate the cooking equipment beneath it and be compatible with the building ventilation systems; see mechanical engineer's drawings for further requirements; FSEC to provide stickers on all sides stating-PENETRATION WITH ANY FASTENERS VIOLATES AGENCY LISTINGS

F. Fire Protection: See Item #231
Demand Control Ventilation: See Item #230

G. Installation: Mount bottom edge of hood, per Elevation; remote touch pad for fan and light control mounted in Owner accessible location

H. Electrical: 120V, 1 phase

228 6-BURNER RANGE W/OVEN
Seven
Viking 5 Series Model VGIC53626BSS *R103

A. Features: 36" wide with six open burners, 15 MBTU each, SureSpark ignition system-automatic re-ignition; natural gas operation; removable porcelain burner bowls; cast iron removable surface grates; stainless steel exterior, including sides; (6) units with 8” high stainless steel backguard (BG8536SS), (1) unit at Demonstration Counter, Item #226 without backguard; black chrome knobs standard; gentle close door; oven base, six functions: standard bake, convection bake, infrared broil, convection infrared broil, convection dehydrate and convection defrost; halogen oven lights; three oven racks; natural gas operation; rear gas connection; gas pressure regulator; gas quick disconnect hose with restraining chain per Article 2.11B; adjustable/leveling legs

B. Electrical: 120V, 1 phase; cord and plug

229 MOBILE INGREDIENT BIN
Three
This item is by Owner and is not in the 11 4000 Contract

230 DEMAND CONTROL VENTILATION SYSTEM
One
Accurex Model XKC-DCV Variable Control Panel or equal by Captive Aire *R103

A. Features: System to automatically reduce exhaust and supply airflow quantities while maintaining hood performance; variable frequency drives (VFD) if required, will be furnished and installed by Mechanical Trades; system has (7) exhaust fans; direct digital controls mounted in stainless steel utility cabinet at right end of Exhaust Hood, Item #227; temperature sensors mounted in capture tank to modulate fan speed; touchscreen display, shipped loose for remote mounting; independent light and fan controls; each exhaust fan to operate independently; system has three exhaust fans; BMS interface with remote monitoring ability (BACnetMSTP); provide shop drawing, showing all components, required locations, clearances and interconnections

B. Systems: Seven individual systems to service the hoods below:
System EF-106 to service Exhaust Hood, Item #227
System EF-103 to service Exhaust Hood, Item #242A
System EF-104 to service Exhaust Hood, Item #242B
System EF-105 to service Exhaust Hood, Item #242C
System EF-107 to service Exhaust Hood, Item #242D

System EF-108 to service Exhaust Hood, Item #242E
System EF-109 to service Exhaust Hood, Item #242F

C. Installation: Factory install and prewire components in exhaust hood; Electrical Contractor to wire from the controller to the VFD and from the VFD to the fan motors; Electrical Contractor to wire from room sensor to controller and from data port to building MAU system; complete energy-saving control system coordinated with Mechanical and Electrical Contractors; VFD's to be located within 100' of fans; VFD's located per Engineers
D. Testing: Assist Mechanical Contractor with start-up and testing of system; prepare report stating results of test and submit to Architect/Engineer
E. Electrical: (3) 208V, 3 phase
120V, 1 phase (Control Panel)

231 FIRE PROTECTION SYSTEM
One
Ansul R-102 System or equal by Pyro-Chem or Range Guard *R103
A. Features: Wet chemical fire protection system per Article 2.9 to protect exhaust hood, Item #227 and the equipment below; automatic mechanically activated gas shut-off valve; remote manual pull station; coordinate shape of empty J-box in wall (with empty conduit) by Electrical for remote pull by FSEC, and coordinate location with local fire authorities and Electrical Trades; all conduit to be inside wall; tanks and nozzles per UL 300; stainless steel cabinet located on end of exhaust hood, Item #227 per Plan; provide lift-off door; double pan back so there are no screws in hood; provide wet chemical tanks properly sized to fit within 30" high stainless steel cabinet
B. Testing: Provide system pre-test by factory authorized personnel to ensure proper operation prior to final test by Fire Marshal
C. Electrical: 120V, 1 phase

232 UTILITY CART
One
Lakeside Model 522 *R103
Features: Stainless steel construction with three shelves; shelf size 18" x 27"; 700 pound capacity; bumpers; delete fixed casters; provide four 5" diameter swivel casters; NSF listed

233 MOP CABINET
One
IMC/Teddy Model CMSC-R *R103
Features: Double wide cabinet; full height doors on mop sink and storage/ramp side with two fixed shelves, opening for mop bucket; utility spray hose and two mop holders; 18 gauge stainless steel construction; upper cabinet with one fixed shelf notched for mop handles; pot filler faucet; anti-splash 23" x 26" sink bowl, includes drain; sloped top

234 WORKCOUNTER
Five
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (3) 120V, 1 phase

235 MICROWAVE OVEN
Seven
ACP/Amana Model RCS10TS or equal by Panasonic *R103
A. Features: Stainless steel exterior and interior; 1000 watt oven; 1.2 cubic feet capacity; 10 programmable memory pads; digital display; top energy feed; enclosed rotating microwave antenna; see-through window; single and multiple program pre-set timing; variable entry timing; permanent memory

B. Electrical: 120V, 1 phase; cord and plug

236 WORKCOUNTER - ADA
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (3) 120V, 1 phase

237 MOBILE WORKTABLE
Eleven
Advance Tabco Model SS-305 or equal by Eagle Group or Custom Fabricate *R103
Features: Length and width per Plan; 36" high; 14 gauge stainless steel top and understructure; stainless steel adjustable undershelf; stainless steel legs and underbracing; rolled rim edge; paint on sound deadening under top; four 5" diameter swivel casters, all with brakes

238 MOBILE WORKTABLE - ADA
One
Advance Tabco Model TSS-305 or equal by Eagle Group or Custom Fabricate *R103
Features: Length and width per Plan; 34" high; 14 gauge stainless steel top and understructure, including legs; front and back with rolled rim edges, square side edges; paint on sound deadening top; three hat channels; front to back and left to right stretchers; welded areas polished to match adjacent surfaces; (4) 5" diameter heavy-duty swivel casters, all with brakes

239 WORKCOUNTER W/SINKS
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (2) 120V, 1 phase

240 HAND SINK - ADA
One
John Boos Model PBHS-W-1416ADAS or equal by Advance Tabco *R103
A. Features: Stainless steel construction; 8" high integral backsplash; chrome-plated P-trap, wall-mounting bracket; strainer-type waste; stainless steel side supports; provide splash-mount hand sink faucet per Article 2.11B; faucet holes on 4" centers; add welded side splashes if required by code
B. Installation: Mount 34" above floor

241 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

242 EXHAUST HOOD (TYPE I)
Six
Accurex Model XXDW or equal by Captive Aire ND-2 *R103
A. Features: Filter-type hood; 24" high canopy; double shell front; fully insulated hood to meet UL710 zero clearance requirements; without fire damper; one filter removal tool per project; recessed LED lights; stainless steel Xtractor filters, or equal; equipped per Article 2.8; exhaust air balancing baffle; heat sensors installed at each hood duct collar to automatically activate the exhaust fan whenever cooking operations occur (wiring to fan by Electrical Trades)
B. Size: Per Plan
C. Exhaust Requirements: The project was designed based on the exhaust air volumes listed below:
D. Exhaust: One duct collar measuring 9" x 8" at 788 CFM at 0.5" static pressure

E. Hood must comply with code authority requirements, properly ventilate the cooking equipment beneath it and be compatible with the building ventilation systems; see mechanical engineer's drawings for further requirements; FSEC to provide stickers on all sides stating-PENETRATION WITH ANY FASTENERS VIOLATES AGENCY LISTINGS
F. Fire Protection: See Items #246 & #251
Demand Control Ventilation: See Item #230
G. Installation: Mount bottom edge of hood, per Elevation; remote touch pad for fan and light control mounted in Owner accessible location
H. Electrical: 120V, 1 phase

243 WORKCOUNTER W/SINKS
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (2) 120V, 1 phase

244 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

245 STAINLESS STEEL WALL PANEL
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail
B. Features: 18 gauge continuous stainless steel panel, Rigidized Metal, pattern Sand-Tex or equal by Rimex, pattern Metal Sandstar; stainless steel sheet to extend from 6" AFF, coordinate with height of floor covering, to bottom edge of hood; conceal fasten to wall and seal perimeter; neatly finish utility openings with escutcheon covers; maximize size of sheets used

246 FIRE PROTECTION SYSTEM
One
Ansul R-102 System or equal by Pyro-Chem or Range Guard *R103
A. Features: Wet chemical fire protection system per Article 2.9 to protect exhaust hoods (3) Item #242 and the equipment below; automatic mechanically activated gas shut-off valve; remote manual pull station; coordinate shape of empty J-box in wall (with empty conduit) by Electrical for remote pull by FSEC, and coordinate location with local fire authorities and Electrical Trades; all conduit to be inside wall; tanks and nozzles per UL 300; stainless steel cabinet; provide wet chemical tanks properly sized to fit within 30" high stainless steel cabinet
B. Testing: Provide system pre-test by factory authorized personnel to ensure proper operation prior to final test by Fire Marshal
C. Electrical: 120V, 1 phase

247 WORKCOUNTER - ADA
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: 120V, 1 phase

248 WORKCOUNTER W/SINKS - ADA
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details; include basket waste E38-1010 in lieu of rotary waste
B. Electrical: (2) 120V, 1 phase

249 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

250 OPEN NUMBER

251 FIRE PROTECTION SYSTEM
One
Ansul R-102 System or equal by Pyro-Chem or Range Guard *R103
A. Features: Wet chemical fire protection system per Article 2.9 to protect exhaust hoods (3) Item #242 and the equipment below; automatic mechanically activated gas shut-off valve; remote manual pull station; coordinate shape of empty J-box in wall (with empty conduit) by Electrical for remote pull by FSEC, and coordinate location with local fire authorities and Electrical Trades; all conduit to be inside wall; tanks and nozzles per UL 300; stainless steel cabinet; provide wet chemical tanks properly sized to fit within 30" high stainless steel cabinet
B. Testing: Provide system pre-test by factory authorized personnel to ensure proper operation prior to final test by Fire Marshal
C. Electrical: 120V, 1 phase

252 STAINLESS STEEL WALL PANEL
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail
B. Features: 18 gauge continuous stainless steel panel, Rigidized Metal, pattern Sand-Tex or equal by Rimex, pattern Metal Sandstar; stainless steel sheet to extend from 6" AFF, coordinate with height of floor covering, to bottom edge of hood; conceal fasten to wall and seal perimeter; neatly finish utility openings with escutcheon covers; maximize size of sheets used

253 STORAGE CABINET
Two
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details

254 WORKCOUNTER W/SINKS
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (2) 120V, 1 phase

255 OPEN NUMBER

256 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

257 WORKCOUNTER W/SINKS
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (2) 120V, 1 phase

258 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

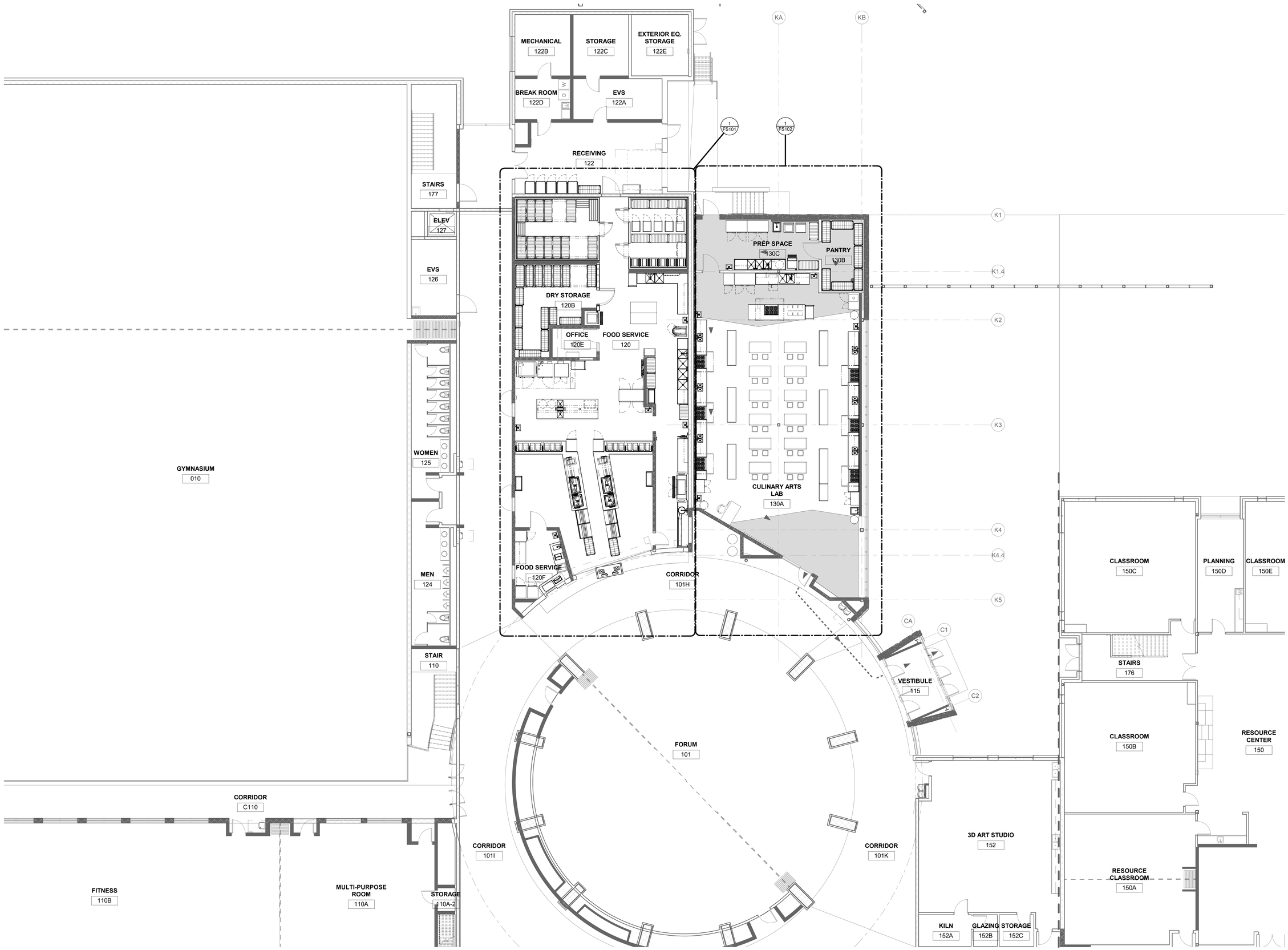
259 WORKCOUNTER
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: 120V, 1 phase

260 OPEN NUMBER

261 WORKCOUNTER W/SINKS
One
A. Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Details
B. Electrical: (2) 120V, 1 phase

262 WALL CABINET
One
Fabricate; construct per Plan, Part 2-Products, Elevation and Standard Detail

END OF SECTION



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

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Minneapolis, MN 55438
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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO 4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT OVERALL PLAN

FS100

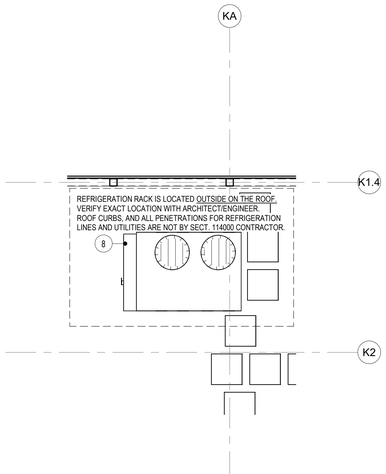
FOODSERVICE EQUIPMENT SCHEDULE - KITCHEN AND SERVERY			
ITEM #	QTY	DESCRIPTION	REMARKS
1	5	MOBILE WARMING CABINET	EXISTING/NO CHANGE
2	1	RECEIVING CART	EXISTING/NO CHANGE
3	1	WALK-IN FREEZER	EXISTING/MODIFY
4	1	WALK-IN REFRIGERATOR COMPLEX	EXISTING/NO CHANGE
5	1	DRY STORAGE SHELVING	EXISTING/NO CHANGE
6	5	ENCLOSED COLD TRANSPORT CART	EXISTING/NO CHANGE
7	3	REFRIGERATOR/FREEZER SHELVING	EXISTING/NO CHANGE
8	1	RACKED REFRIGERATION SYTEM	
9	2	HIGH DENSITY SHELVING	
10	1	HIGH DENSITY SHELVING	
11A	1	ICE BIN	
11B	1	ICE MAKER	EXISTING/RELOCATE/MODIFY
12	3	DUNNAGE SHELF	EXISTING/NO CHANGE
13	1	FLOOR TROUGH	
14	8	MOBILE RACK	EXISTING/NO CHANGE
15	1	OPEN NUMBER	
16	3	DUNNAGE RACK	EXISTING/OWNER TO RELOCATE
17	8	DRY STORAGE SHELVING	EXISTING/OWNER TO RELOCATE
18A	2	AIR CURTAIN	EXISTING/NO CHANGE
18B	1	AIR CURTAIN	EXISTING/RELOCATE
19	2	UTILITY CART	EXISTING/NO CHANGE
20	1	UTENSIL RACK	EXISTING/NO CHANGE
21	1	VEGETABLE PREP COUNTER W/SINKS	EXISTING/NO CHANGE
22	1	DISPOSER W/SPRAY RINSE	EXISTING/NO CHANGE
23	1	WALL HUNG SHELVING	EXISTING/NO CHANGE
24	2	SHEET PAN DOLLY	EXISTING/NO CHANGE
25	5	HAND SINK	
26	1	MOBILE WORKTABLE	EXISTING/NO CHANGE
27	1	MOBILE WORKTABLE	EXISTING/NO CHANGE
28-46	1	OPEN NUMBER	
47	1	POT & PAN SINK	EXISTING/RELOCATE
48	1	DISPOSER W/SPRAY RINSE	EXISTING/RELOCATE
49	1	OPEN NUMBER	
50	1	OPEN NUMBER	
51	1	WALL HUNG SHELVING	EXISTING/NO CHANGE
52	1	OPEN NUMBER	
53	1	OPEN NUMBER	
54	3	PAN STORAGE SHELVING	EXISTING/NO CHANGE
55	1	OPEN NUMBER	
56	1	OPEN NUMBER	
57A	1	COMBI OVEN, 2-SEC.	EXISTING/RELOCATE
57B	1	WATER FILTRATION SYSTEM	EXISTING/RELOCATE
58	1	CONVECTION OVEN, 2-SEC.	EXISTING/RELOCATE
59-67	1	OPEN NUMBER	
68	1	60 QUART MIXER	EXISTING/RELOCATE
69	1	OPEN NUMBER	
70	1	OPEN NUMBER	
71	1	EXHAUST HOOD (TYPE I)	
72	1	STAINLESS STEEL WALL PANEL	
73	1	FIRE PROTECTION SYSTEM	
74A	1	ROLL-IN COMBI OVEN	

FOODSERVICE EQUIPMENT SCHEDULE - KITCHEN AND SERVERY			
ITEM #	QTY	DESCRIPTION	REMARKS
74B	1	WATER FILTRATION SYSTEM	
74C	1	BUMPER GUARD	
75	1	EXHAUST HOOD CONTROL PANEL	
76	1	WORKCOUNTER W/SINKS & OVERSHELF	
77	2	MOBILE TRASH BIN	EXISTING/OWNER TO RELOCATE
78	1	ROLL-THRU REFRIGERATOR, 2-SEC.	
79	1	OPEN NUMBER	
80	1	OPEN NUMBER	
81	3	MOBILE TRAY DISPENSER	
82	1	SERVING COUNTER	
83	1	PROTECTOR SHELF SYSTEM	
84	2	HOT/COLD PAN, 4-WELL	
85	2	HOT/COLD PAN, 1-WELL	
86	2	HOT/COLD PAN, 3-WELL	
87	3	MOBILE WARMING CABINET	
88	1	SERVING COUNTER	
89	1	PROTECTOR SHELF SYSTEM	
90	1	OPEN NUMBER	
91	2	DROP-IN COLD PAN, 2-WELL	
92	2	DROP-IN COLD PAN, 3-WELL	
93	4	REFRIGERATED DISPLAY CASE	
94	2	SNACK SHELVING	
95	1	OPEN NUMBER	
96	1	MOBILE CASHIER STAND	
97	2	FLATWARE DISPENSER	
98	3	P.O.S. SYSTEM	BY OWNER
99	1	OPEN NUMBER	
100	1	UNDERMOUNT UTILITY SINK	
101	1	A LA CARTE COUNTER	
102	1	NOVELTY ICE CREAM DISPLAY	
103	1	FROZEN DRINK MACHINE	BY OWNER'S VENDOR
104	1	REACH-IN REFRIGERATOR, 1-SEC.	
105	1	OPEN NUMBER	
106	1	MOBILE WORKTABLE	
107	1	WALL SHELF	
108	1	REACH-IN FREEZER, 1-SEC.	
109	1	OPEN NUMBER	
110	1	OPEN NUMBER	
111	1	SOILED DISHTABLE	
112	1	WASTE COLLECTOR	
113	1	SPRAY RINSE	
114	2	EXHAUST DUCT RISER	
115	1	OPEN NUMBER	
116	1	DISHMACHINE W/BOOSTER HEATER	
117	1	FLOOR TROUGH	
118	1	CLEAN DISHTABLE	
119	1	WALL SHELF	
120	1	OPEN NUMBER	
121	1	HOSE REEL	
122	1	EYE/FACE WASH STATION	
123-199	1	OPEN NUMBER	

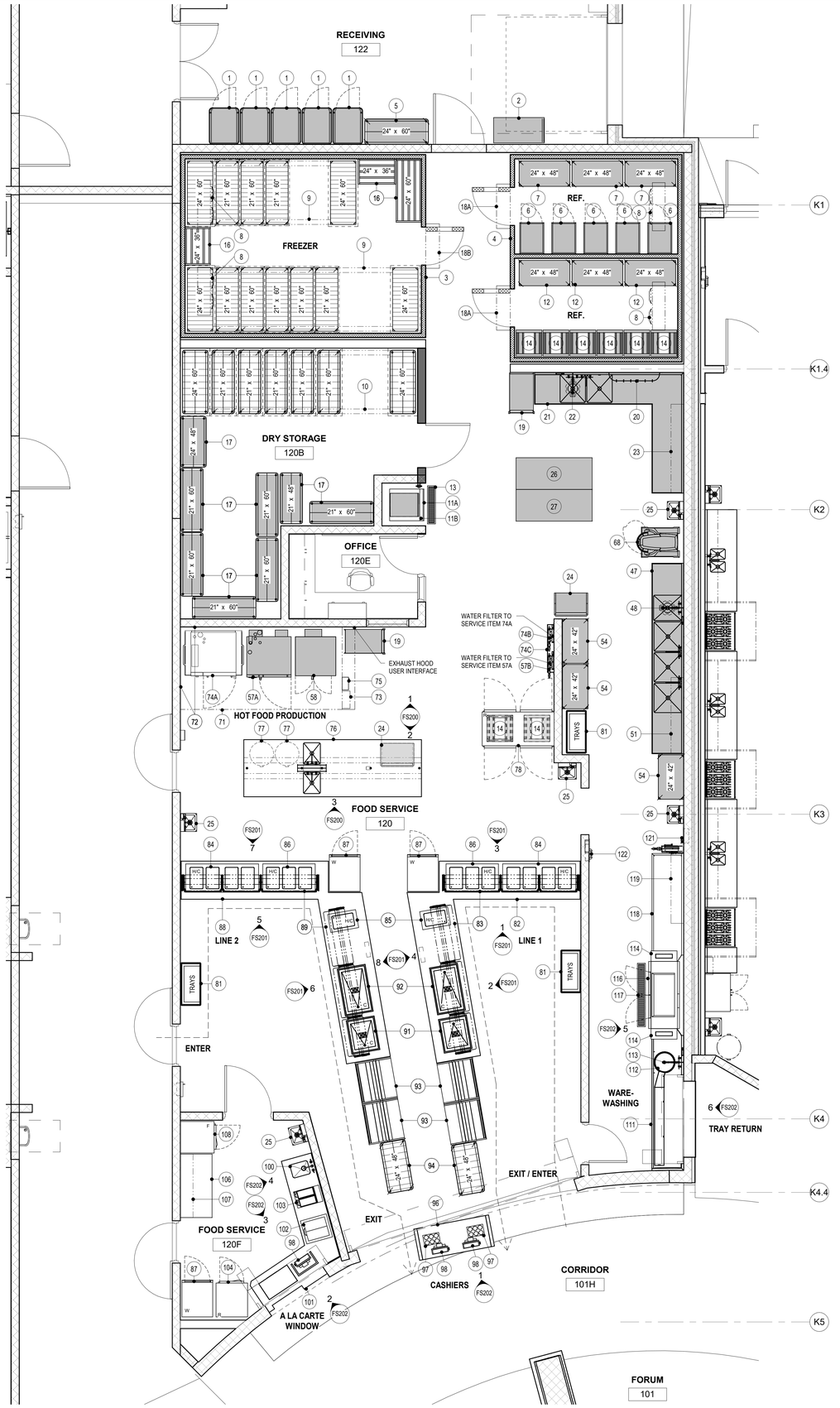
LEGEND

DENOTES EXISTING EQUIPMENT (SEE EQUIPMENT SCHEDULE)

DENOTES THE FLOW OF PATRONS



2 FOODSERVICE EQUIPMENT ROOF PLAN - REFRIGERATION
1/4" = 1'-0"



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

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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT PLAN AND SCHEDULE - KITCHEN / SERVERY / ROOF

FS101

BIM 360://4202990 Valley Southwoods CTE
Addition/21-03-04-FS EQP CENTRAL.rvt
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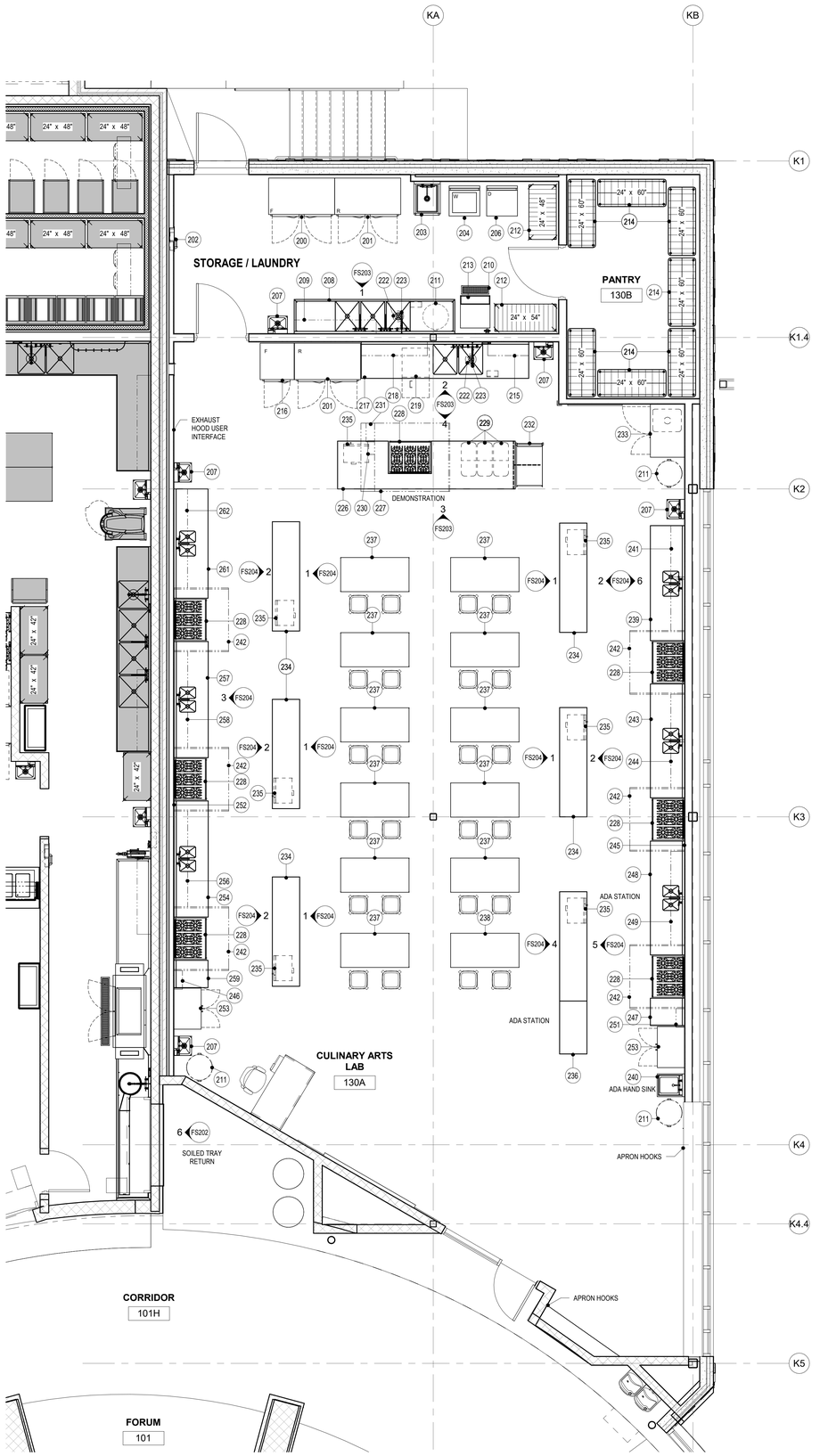
FOODSERVICE EQUIPMENT SCHEDULE - CULINARY LAB

ITEM #	QTY	DESCRIPTION	REMARKS
200	1	REACH-IN FREEZER, 2-SEC.	
201	2	REACH-IN REFRIGERATOR, 2-SEC.	
202	1	EYE/FACE WASH STATION	
203	1	LAUNDRY SINK	
204	1	WASHER	BY OWNER
205	1	OPEN NUMBER	
206	1	DRYER	BY OWNER
207	5	HAND SINK	
208	1	POT & PAN SINK	
209	1	WALL SHELF	
210	1	FLOOR TROUGH	
211	4	MOBILE TRASH BIN	BY OWNER
212	2	PAN STORAGE SHELVING	
213	1	ICE MAKER W/BIN	
214	7	DRY STORAGE SHELVING	
215	1	WALL CABINET	
216	1	REACH-IN FREEZER, 1-SEC.	
217	1	WORKCOUNTER W/SINKS	
218	1	WALL CABINET	
219	1	UNDERCOUNTER DISHMACHINE	
220	1	OPEN NUMBER	
221	1	OPEN NUMBER	
222	2	DISPOSER	
223	2	SPRAY RINSE	
224	1	OPEN NUMBER	
225	1	OPEN NUMBER	
226	1	DEMONSTRATION COUNTER	
227	1	EXHAUST HOOD (TYPE I)	
228	7	6-BURNER RANGE W/OVEN	
229	3	MOBILE INGREDIENT BIN	BY OWNER
230	1	DEMAND CONTROL VENTILATION SYSTEM	
231	1	FIRE PROTECTION SYSTEM	
232	1	UTILITY CART	
233	1	MOP CABINET	
234	5	WORKCOUNTER	
235	7	MICROWAVE OVEN	
236	1	WORKCOUNTER - ADA	
237	11	MOBILE WORKTABLE	
238	1	MOBILE WORKTABLE ADA	
239	1	WORKCOUNTER W/SINKS	
240	1	HAND SINK - ADA	
241	1	WALL CABINET	
242	6	EXHAUST HOOD (TYPE I)	
243	1	WORKCOUNTER W/SINKS	
244	1	WALL CABINET	
245	1	STAINLESS STEEL WALL PANEL	
246	1	FIRE PROTECTION SYSTEM	
247	1	WORKCOUNTER - ADA	
248	1	WORKCOUNTER W/SINKS - ADA	
249	1	WALL CABINET	
250	1	OPEN NUMBER	
251	1	FIRE PROTECTION SYSTEM	
252	1	STAINLESS STEEL WALL PANEL	
253	2	STORAGE CABINET	
254	1	WORKCOUNTER W/SINKS	
255	1	OPEN NUMBER	
256	1	WALL CABINET	
257	1	WORKCOUNTER W/SINKS	
258	1	WALL CABINET	
259	1	WORKCOUNTER	
260	1	OPEN NUMBER	
261	1	WORKCOUNTER W/SINKS	
262	1	WALL CABINET	



LEGEND

DENOTES EXISTING EQUIPMENT (SEE EQUIPMENT SCHEDULE)

DENOTES THE FLOW OF PATRONS

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

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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
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WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT PLAN AND SCHEDULE - CULINARY LAB

FS102

BIM 360://4202990 Valley Southwoods CTE
Addition/Ch 314.004 E3 EQP CENTRAL.rvt
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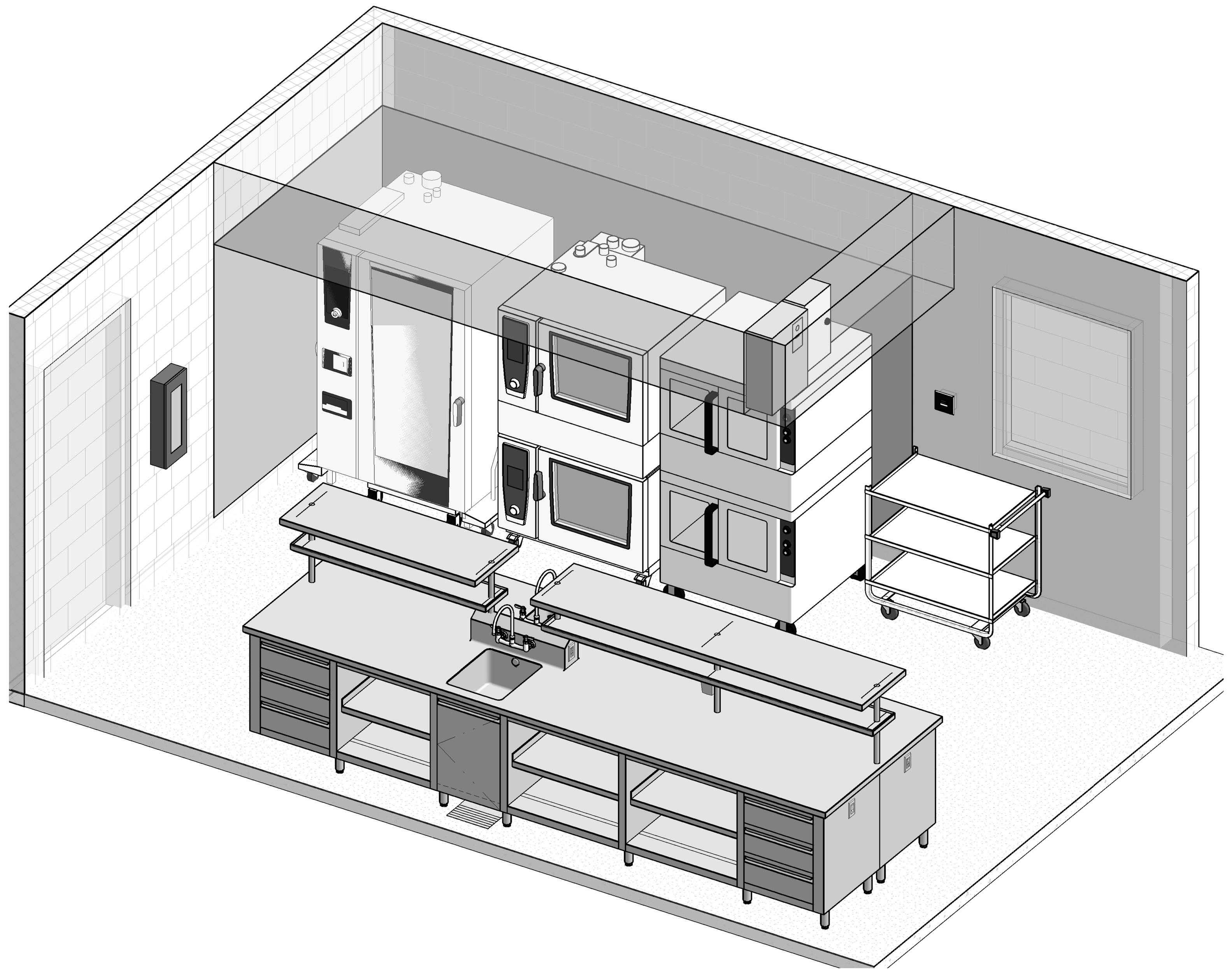
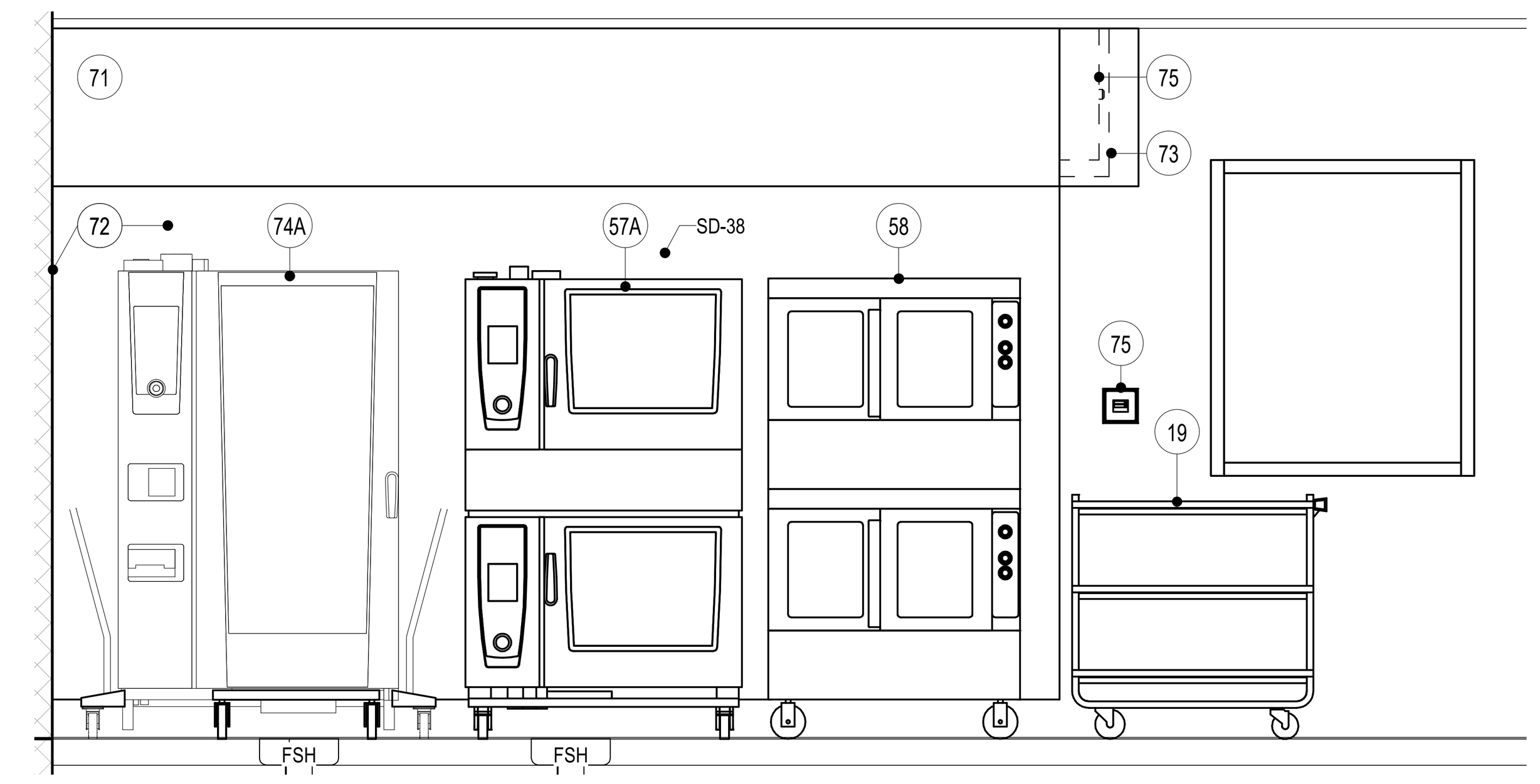
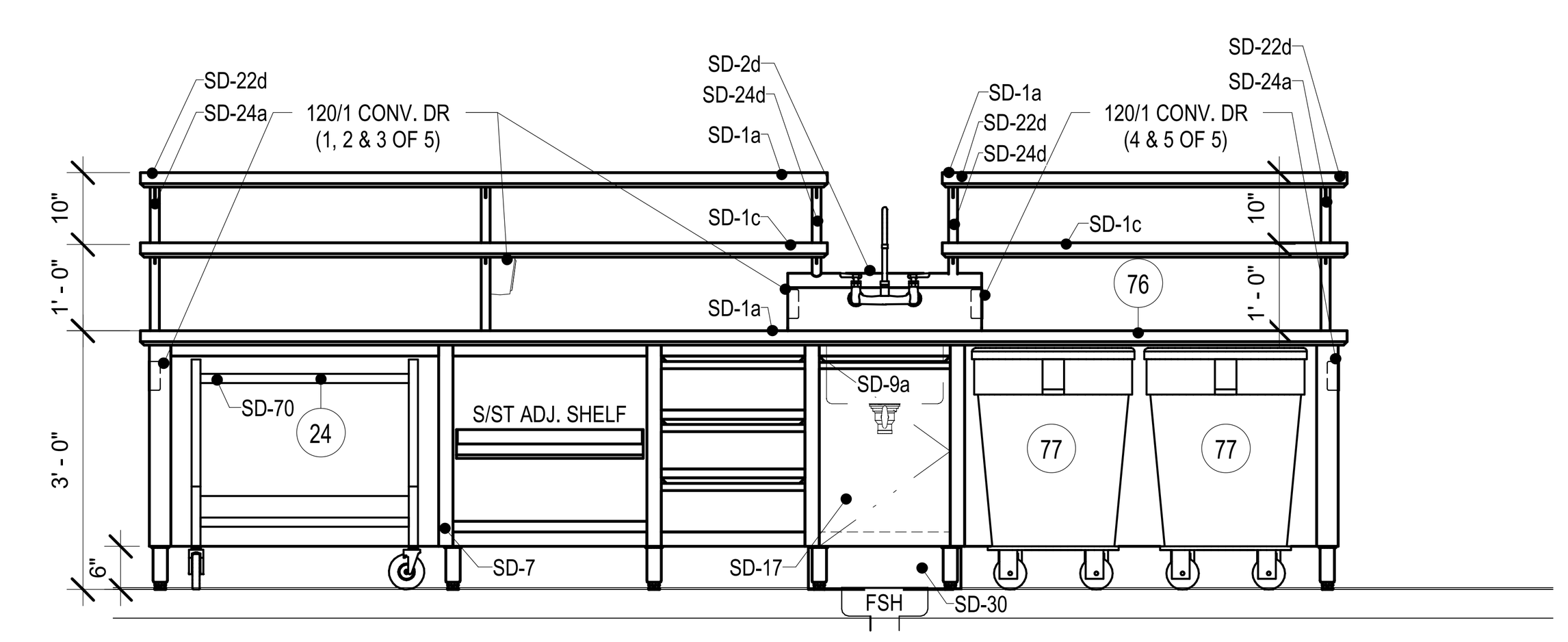
RRA KEYNOTE LEGEND	
KEYNOTE	KEYNOTE TEXT
SD-1a	TABLE EDGE - TURN DOWN
SD-1c	TABLE EDGE - INVERTED "V"
SD-2d	BACKSPLASH - COMMON
SD-7	CABINET CONSTRUCTION
SD-9a	GENERAL USE 16"x20"x10" DP.
SD-14b	15"x20"x5" DP. DRAWER
SD-17	HINGED SOLID DOOR - INTEGRAL PULL
SD-22d	TABLE MOUNTED SHELVES
SD-24a	SHELF UPRIGHTS
SD-24d	SHELF UPRIGHTS
SD-30	UTILITY CURB
SD-38	STAINLESS STEEL WALL PANEL
SD-70	SHEET PAN DOLLY



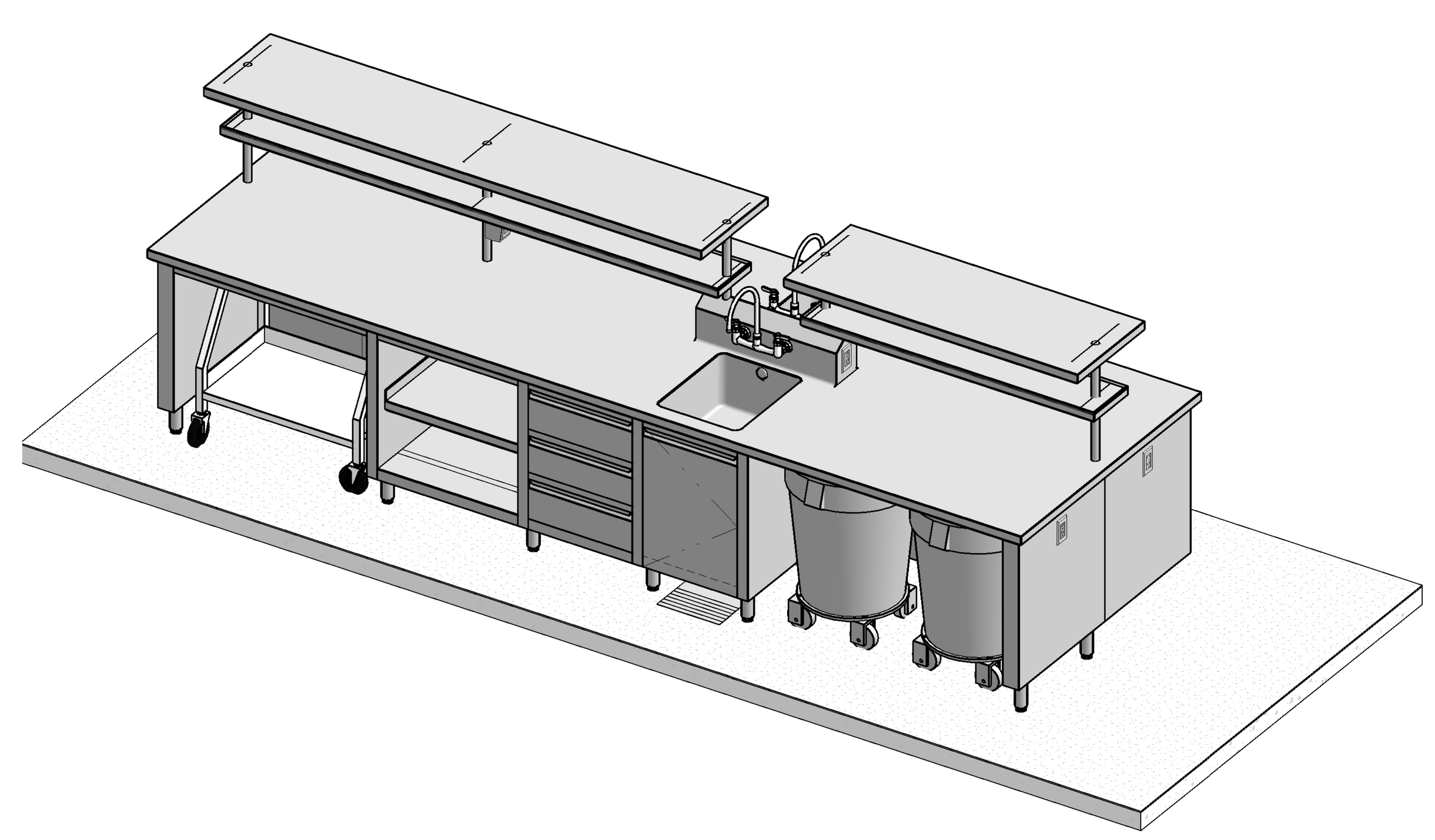
HOT FOOD PRODUCTION 1



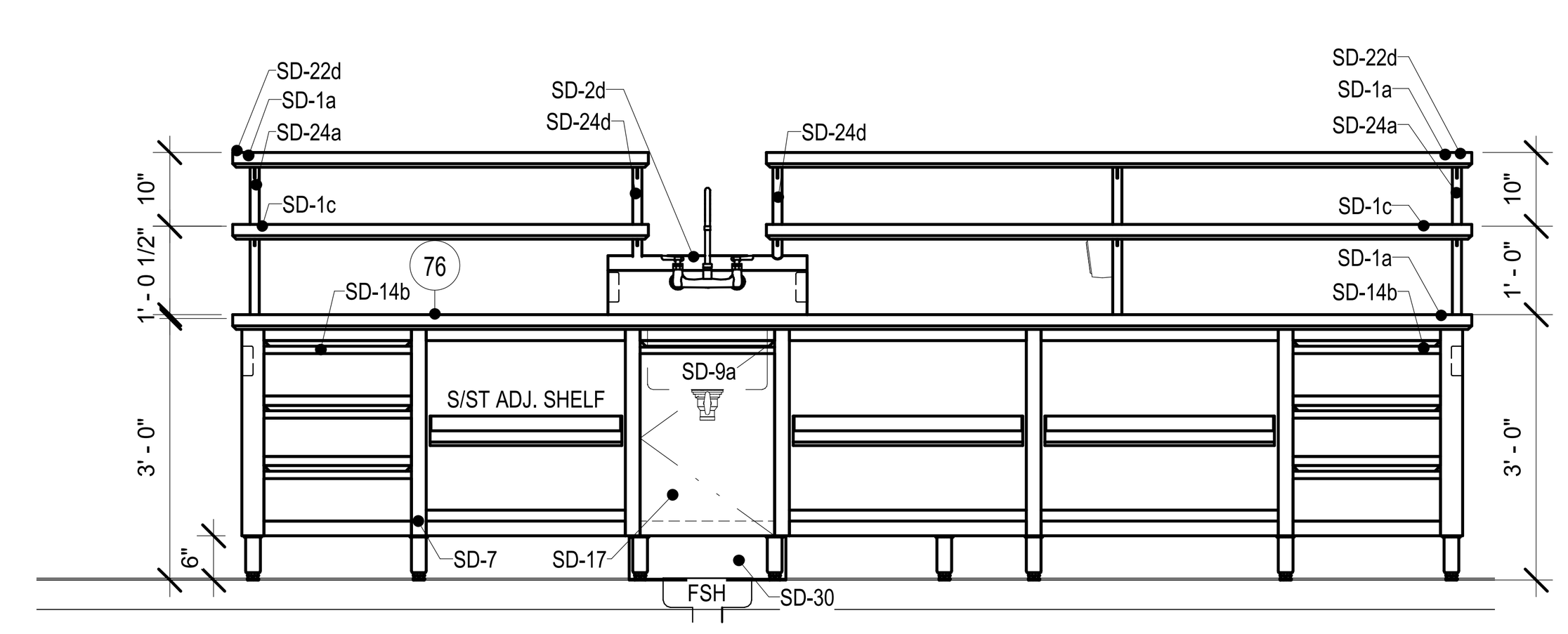
1 ITEM 71 - EXHAUST HOOD (TYPE I)
1/2" = 1'-0"



2 ITEM 76 - WORKCOUNTER W/SINKS & OVERSHELF 1
1/2" = 1'-0"



HOT FOOD PRODUCTION 2



3 ITEM 76 - WORKCOUNTER W/SINKS & OVERSHELF 2
1/2" = 1'-0"

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VALLEY SOUTHWOODS CTE ADDITION

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PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT ELEVATIONS AND SECTIONS

FS200

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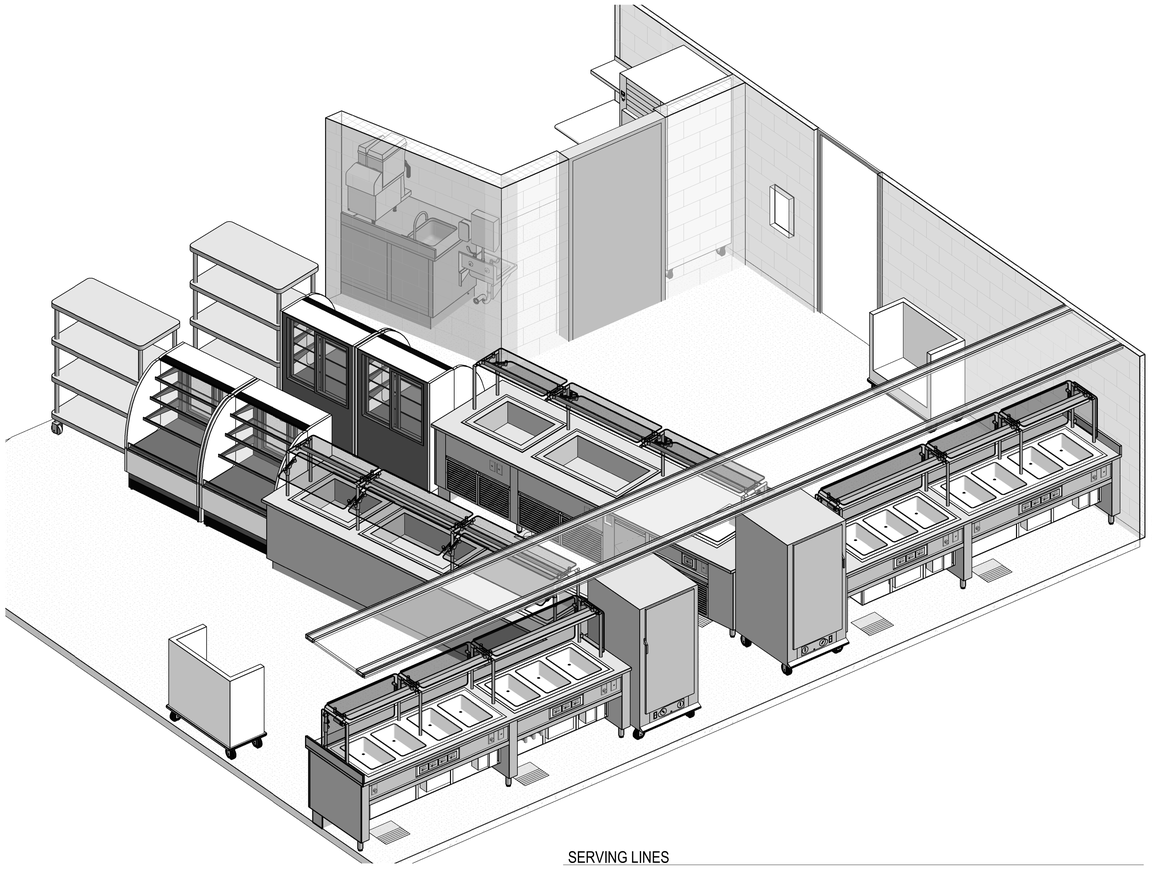
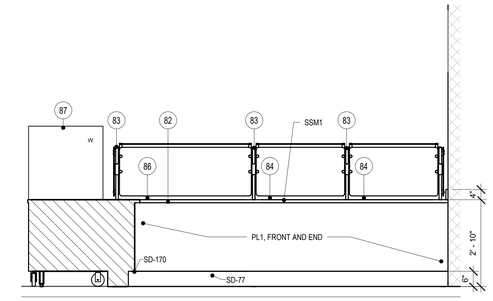
FOODSERVICE EQUIPMENT FINISH SCHEDULE			
FINISH	**MANUFACTURER**	**PRODUCT DISCRIPTION**	**REMARKS**
SSM1	LG HAUSYS	VIATERA / COTTON WHITE	SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL1	WILSONART	HIGH PRESSURE LAMINATE / MISSION MAPLE 7990-38 / 06 4100	VERTICAL CASEWORK, FINE VELVET FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL2	WILSONART	TRACELESS LAMINATE / CHARCOAL VELVET / 15504-31	TRACELESS FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL

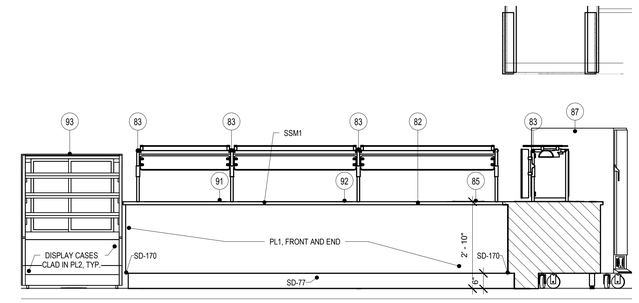
RRA KEYNOTE LEGEND	
KEYNOTE	**KEYNOTE TEXT**
SD-7	CABINET CONSTRUCTION
SD-17	HINGED SOLID DOOR - INTEGRAL PULL
SD-19	HINGED LOUVERED DOOR - INTEGRAL PULL
SD-73	DRAIN VALVE EXTENSION - LTI
SD-75a	RECESSED CONTROL PANEL
SD-75b	CONTROL PANEL
SD-77	CHANNEL BASE
SD-170	MILLWORK EDGE PROTECTION
SD-214	QUARTZ/STONE EDGE PROTECTION



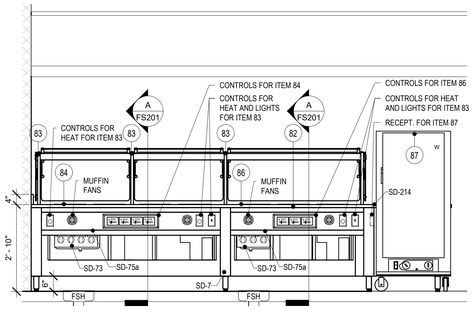
SERVING LINES



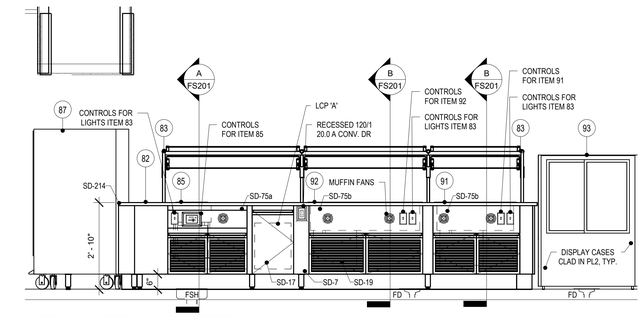
1 ITEM 82 - SERVING COUNTER 1
1/2" = 1'-0"



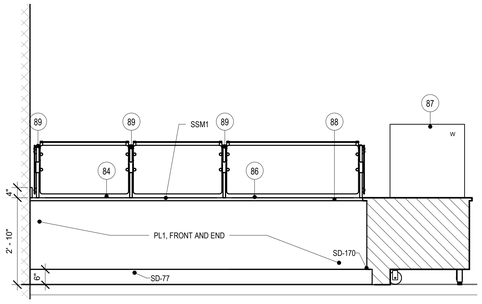
2 ITEM 82 - SERVING COUNTER 2
1/2" = 1'-0"



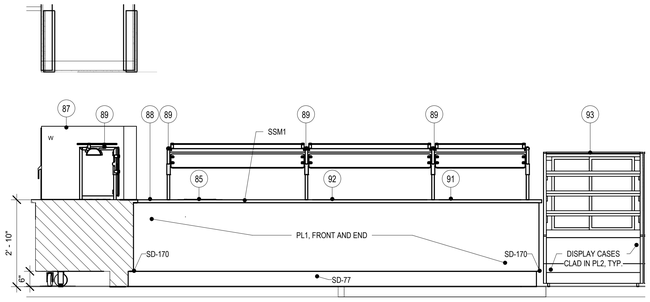
3 ITEM 82 - SERVING COUNTER 3
1/2" = 1'-0"



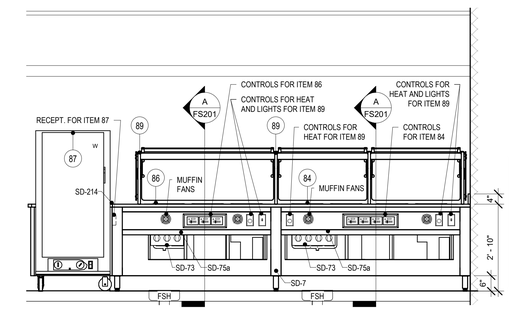
4 ITEM 82 - SERVING COUNTER 4
1/2" = 1'-0"



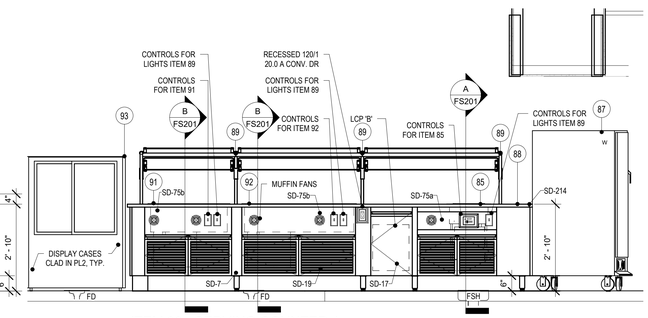
5 ITEM 88 - SERVING COUNTER 1
1/2" = 1'-0"



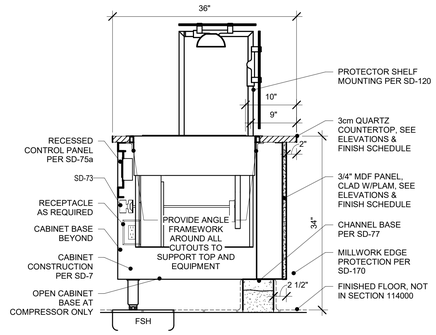
6 ITEM 88 - SERVING COUNTER 2
1/2" = 1'-0"



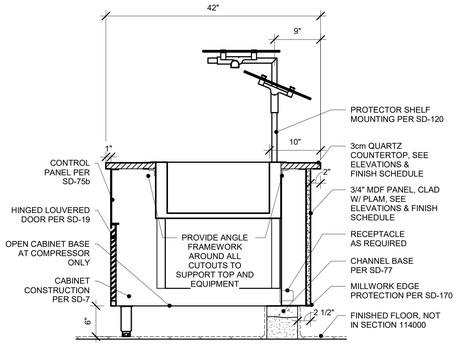
7 ITEM 88 - SERVING COUNTER 3
1/2" = 1'-0"



8 ITEM 88 - SERVING COUNTER 4
1/2" = 1'-0"



A SECTION THRU HOT/COLD WELL
1" = 1'-0"



B SECTION THRU COLD WELL
1" = 1'-0"

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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

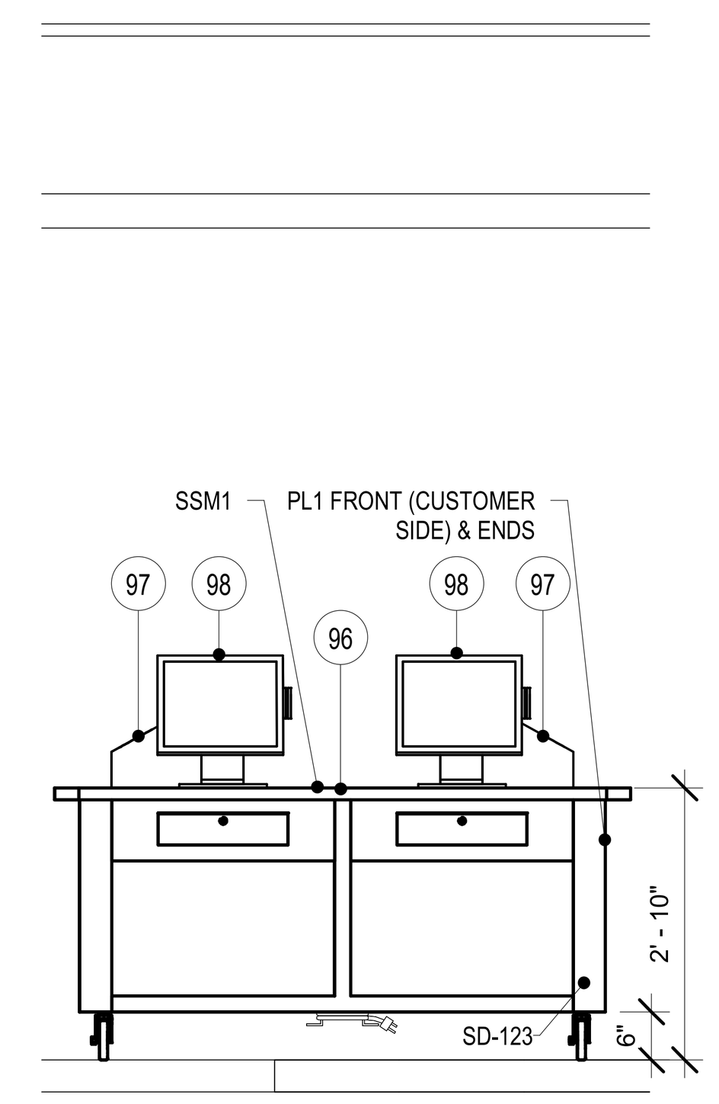
FOODSERVICE EQUIPMENT ELEVATIONS AND SECTIONS

FS201

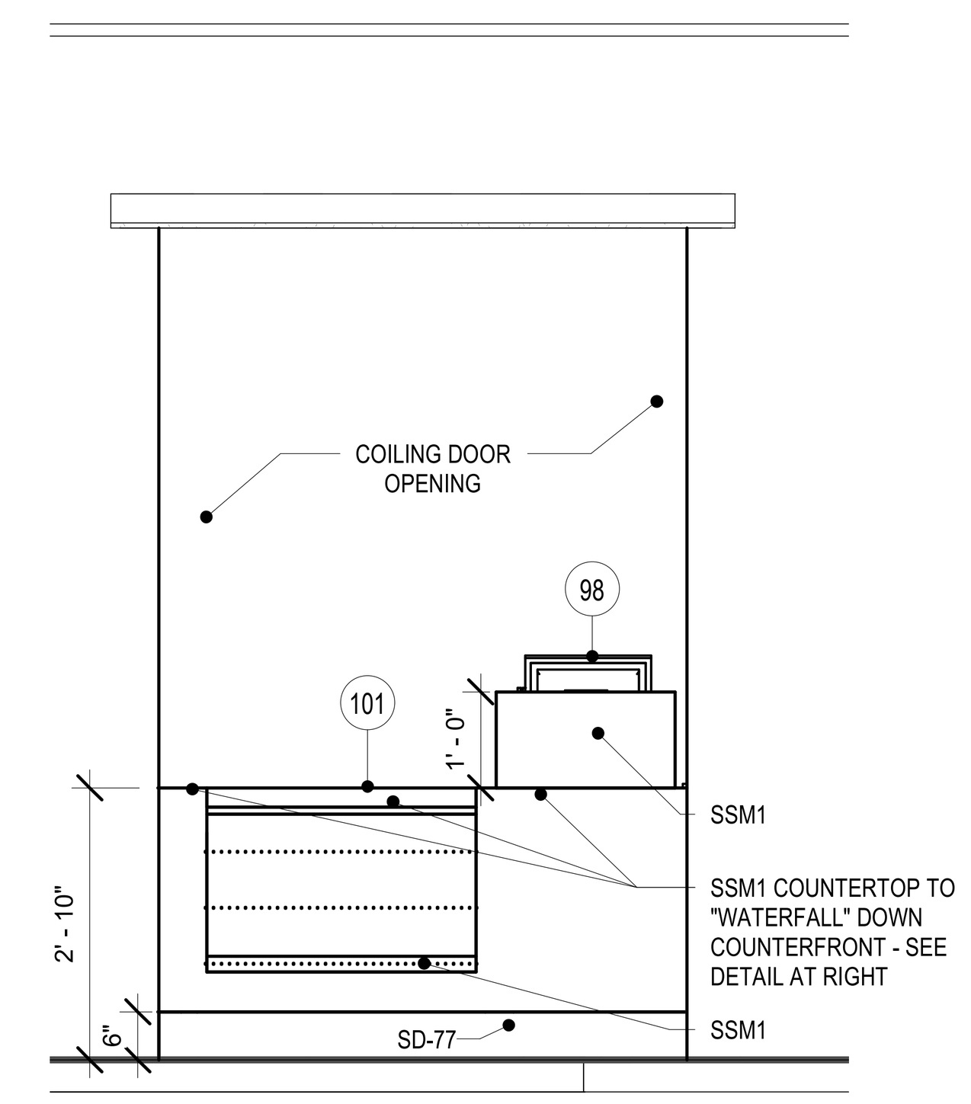
FOODSERVICE EQUIPMENT FINISH SCHEDULE			
FINISH	MANUFACTURER	PRODUCT DISCRIPTION	REMARKS
SSM1	LG HAUSYS	VIATERA / COTTON WHITE	SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL1	WILSONART	HIGH PRESSURE LAMINATE / MISSION MAPLE 7990-38 / 06 4100	VERTICAL CASEWORK, FINE VELVET FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL2	WILSONART	TRACELESS LAMINATE / CHARCOAL VELVET / 15504-31	TRACELESS FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL

RRA KEYNOTE LEGEND	
KEYNOTE	KEYNOTE TEXT
SD-1b	TABLE EDGE - RAISED ROLLED
SD-1c	TABLE EDGE - INVERTED "V"
SD-2a	BACKSPLASH - AT WALL
SD-3	FRAMEWORK
SD-4	TABLE & SINK LEGS
SD-6	REMOVABLE UNDERSHELF
SD-7	CABINET CONSTRUCTION
SD-17	HINGED SOLID DOOR - INTEGRAL PULL
SD-19	HINGED LOUVERED DOOR - INTEGRAL PULL
SD-25b	WALL SHELVES
SD-77	CHANNEL BASE
SD-123	CASHIER COUNTER DETAIL
SD-214	QUARTZ/STONE EDGE PROTECTION

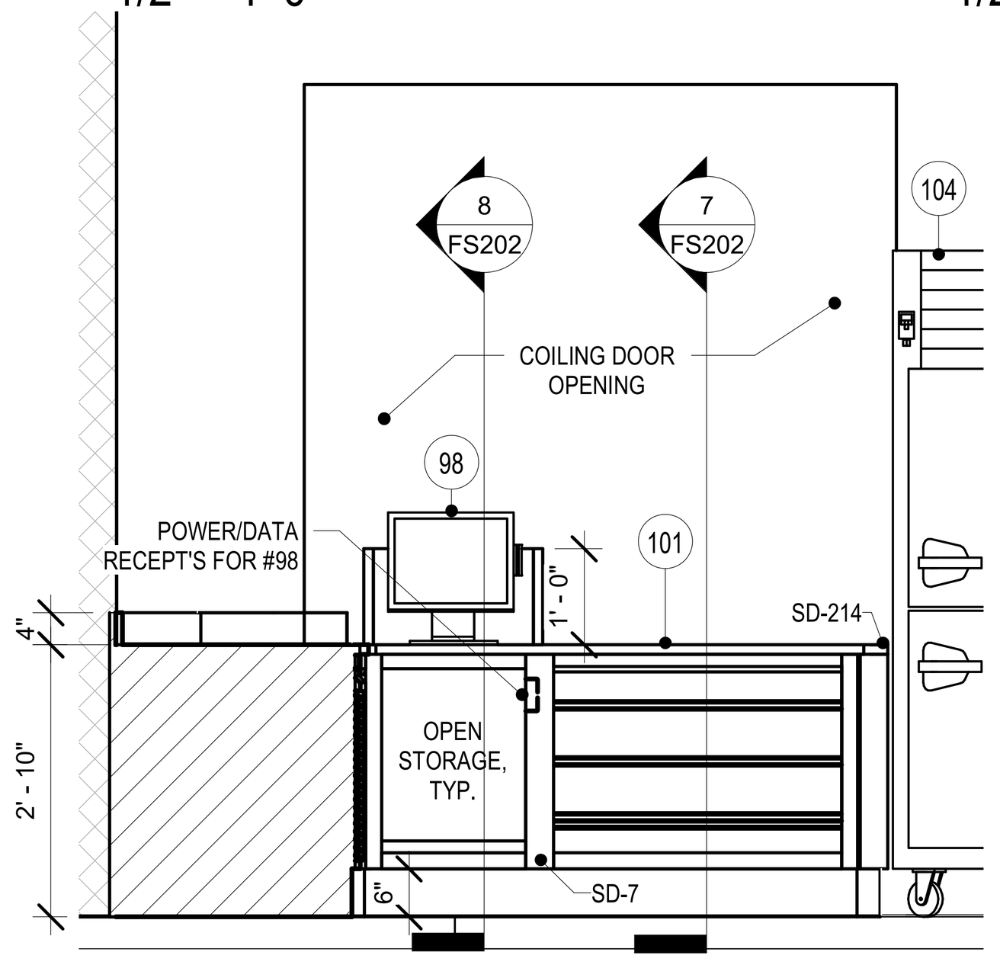
CASHIER'S COUNTERS & A LA CARTE



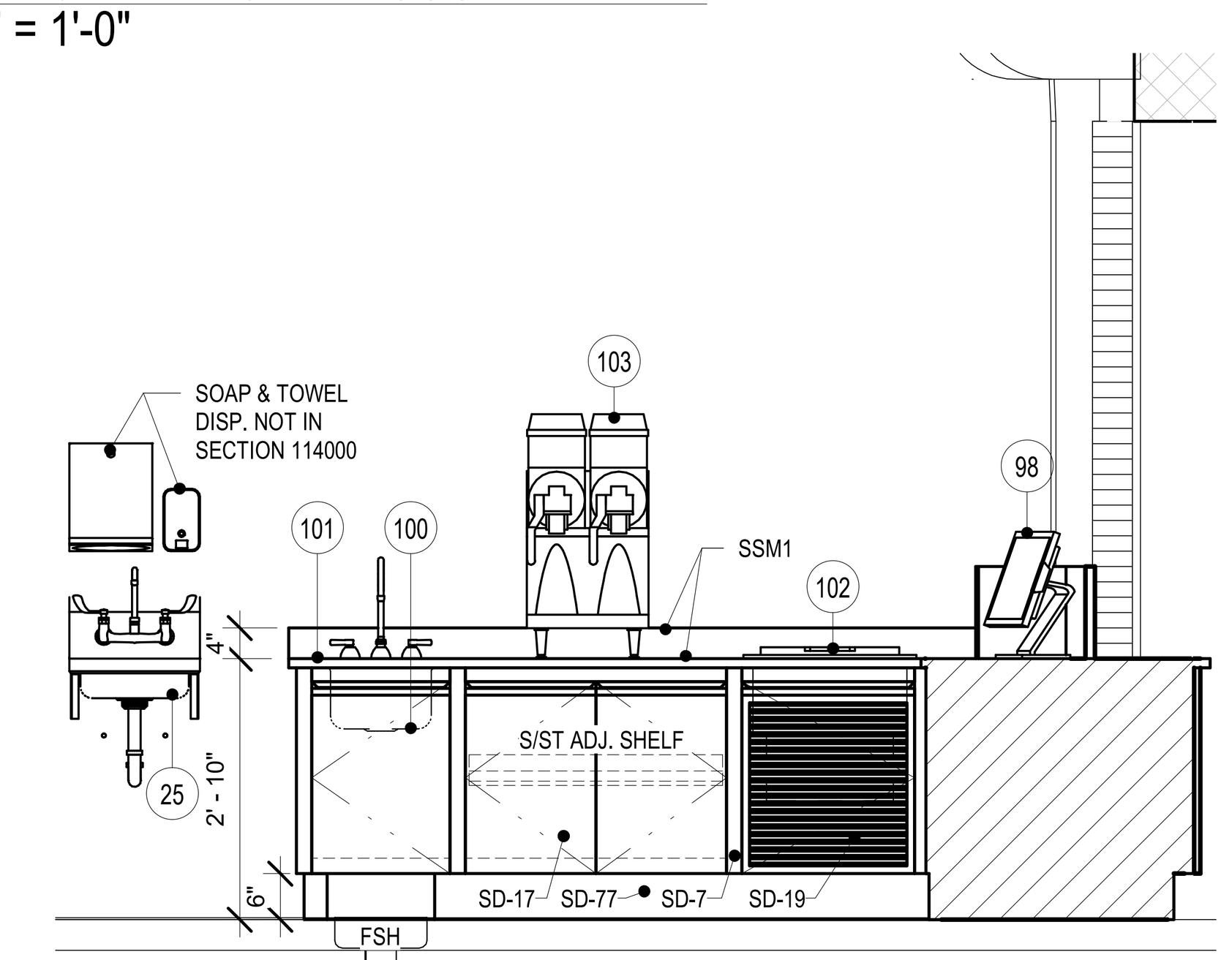
1 ITEM 96 - MOBILE CASHIER STAND
1/2" = 1'-0"



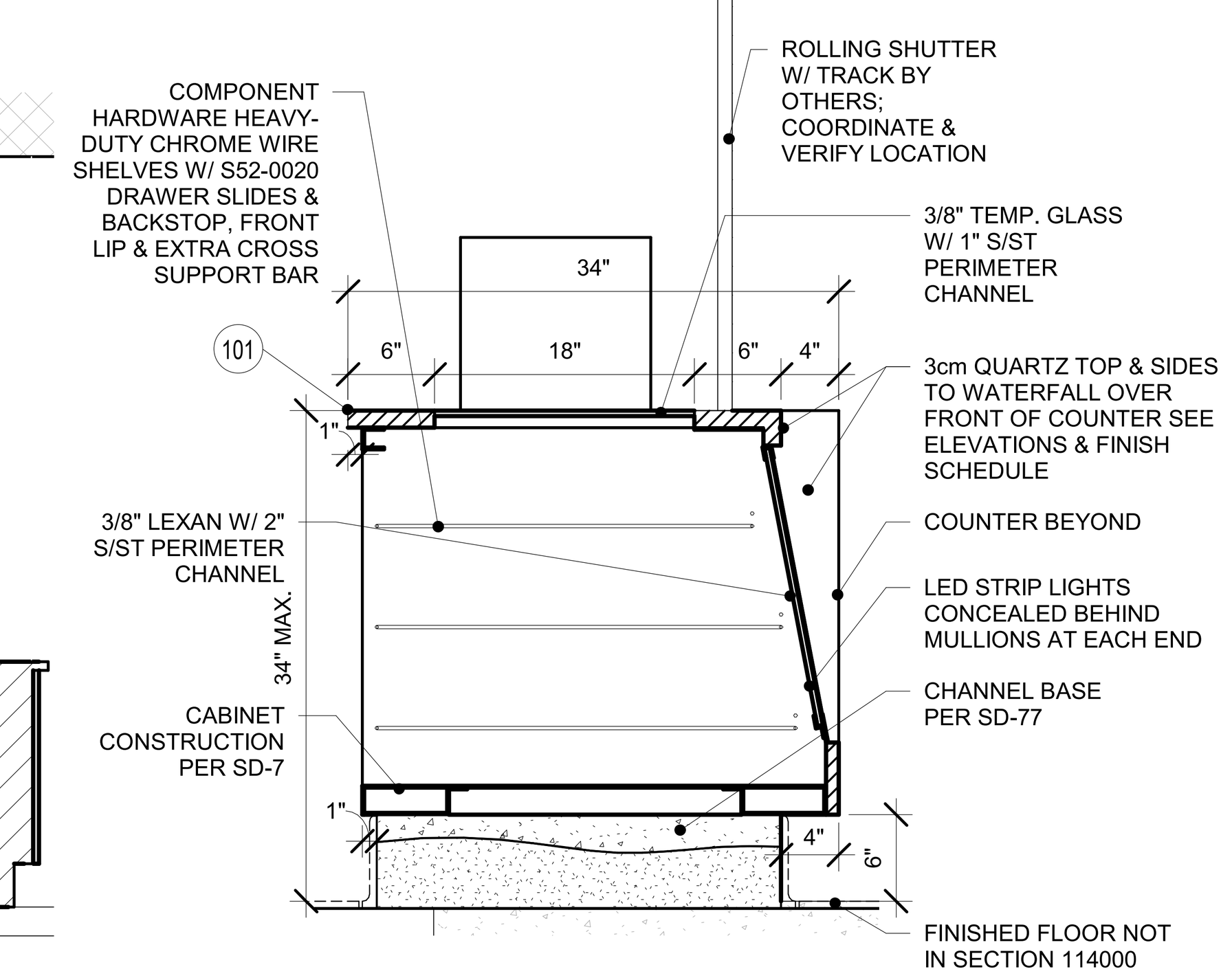
2 ITEM 101 - A LA CARTE COUNTER 1
1/2" = 1'-0"



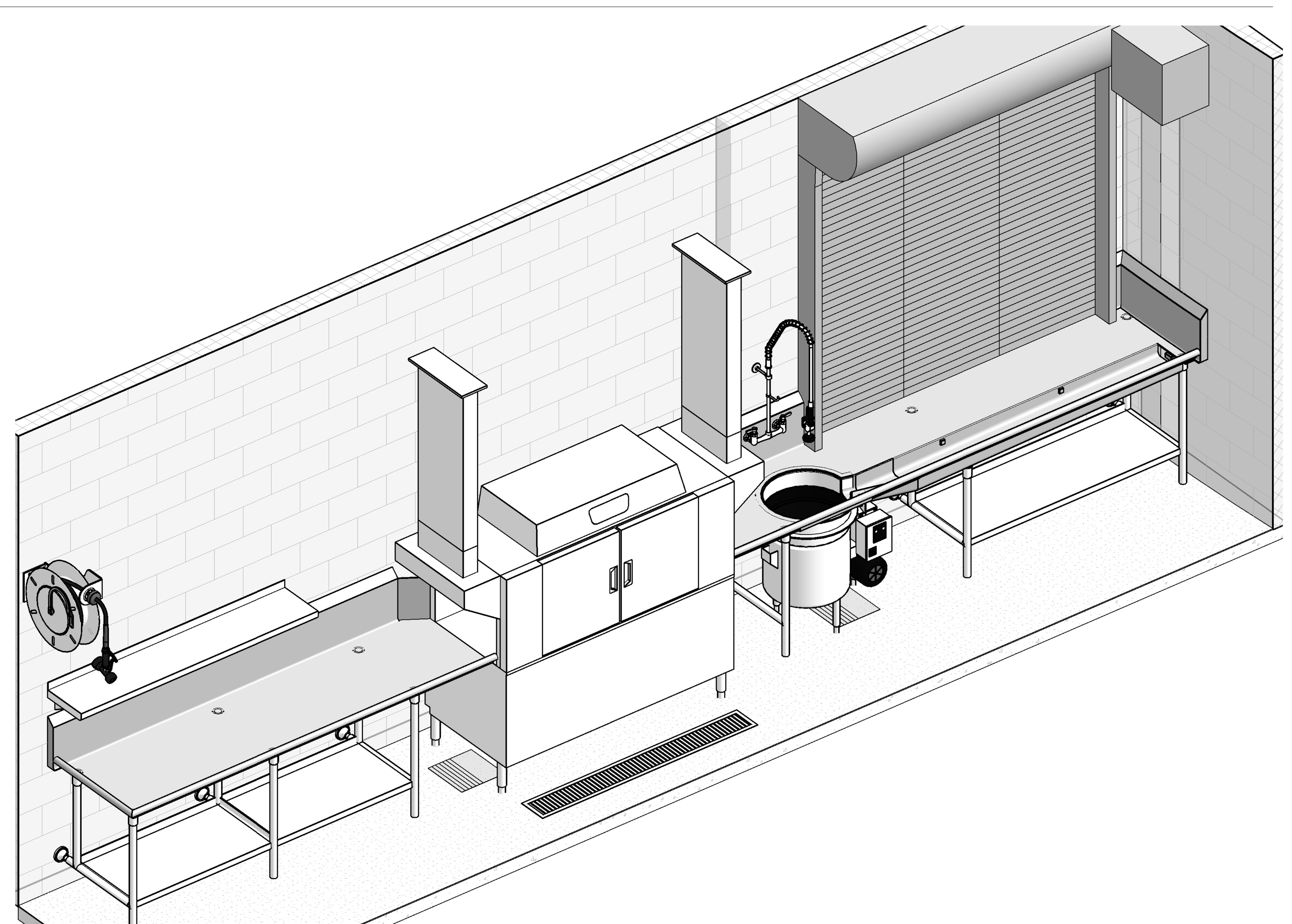
3 ITEM 101 - A LA CARTE COUNTER 2
1/2" = 1'-0"



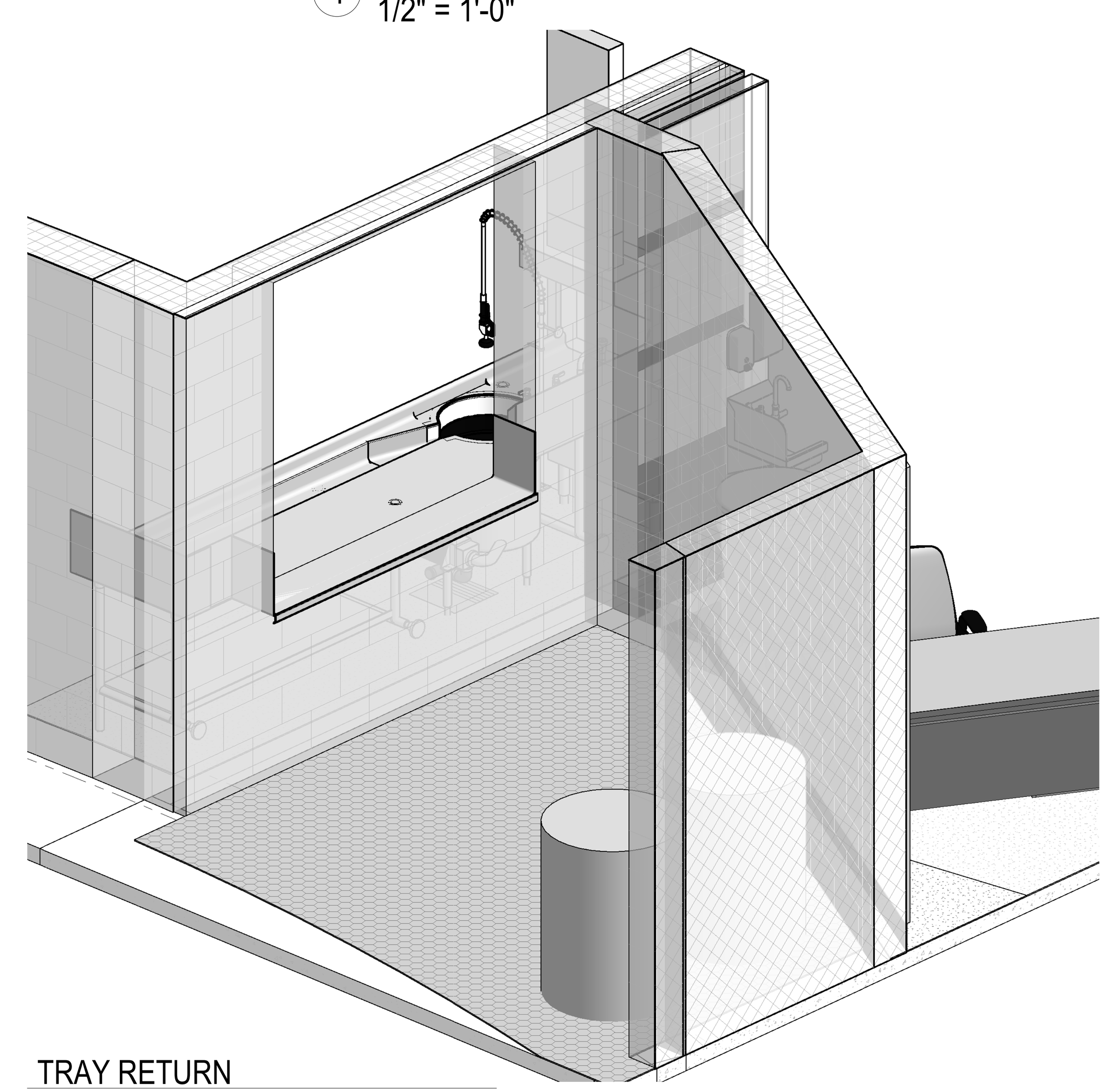
4 ITEM 102 - WORKCOUNTER W/SINK
1/2" = 1'-0"



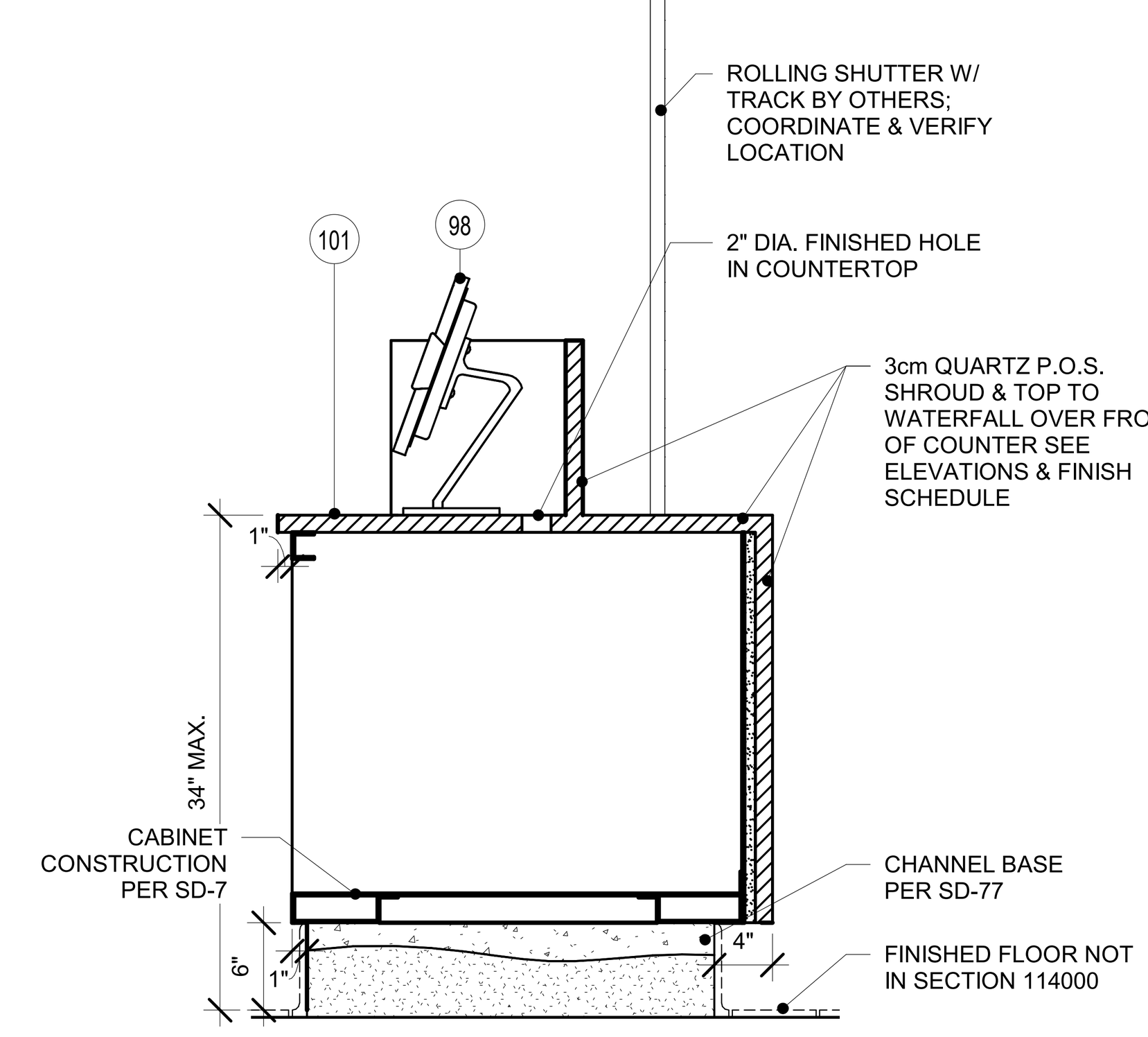
7 SECTION THRU A LA CARTE DISPLAY
1" = 1'-0"



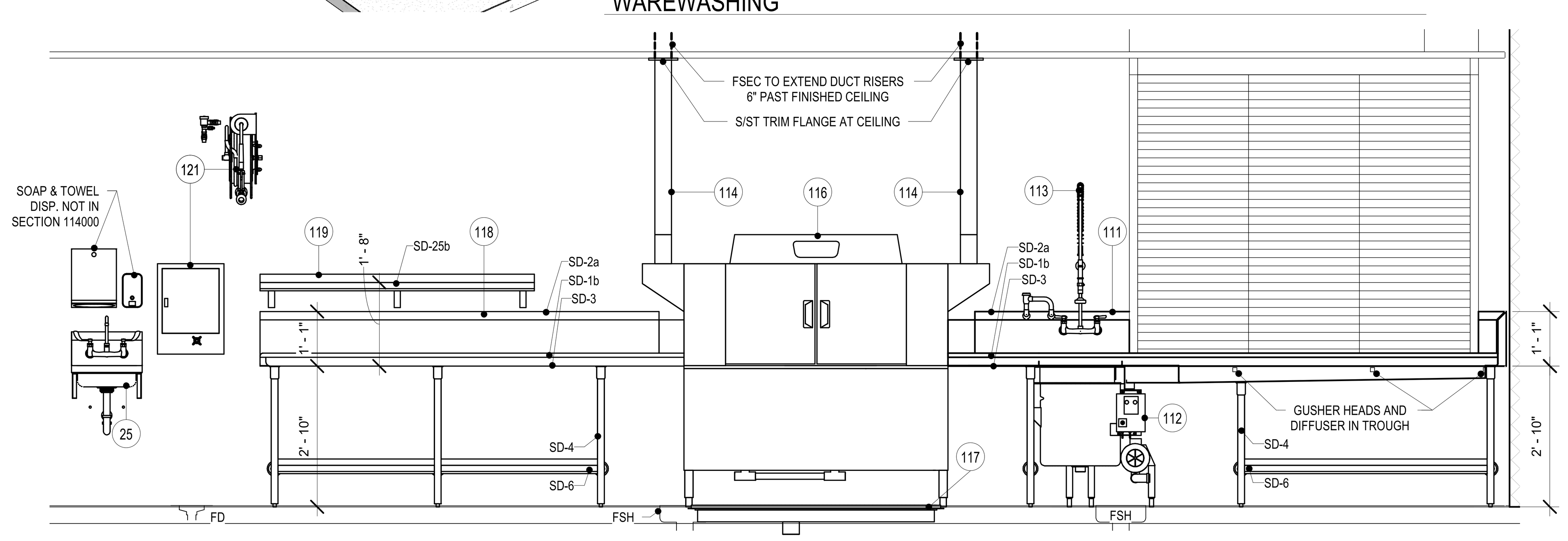
WAREWASHING



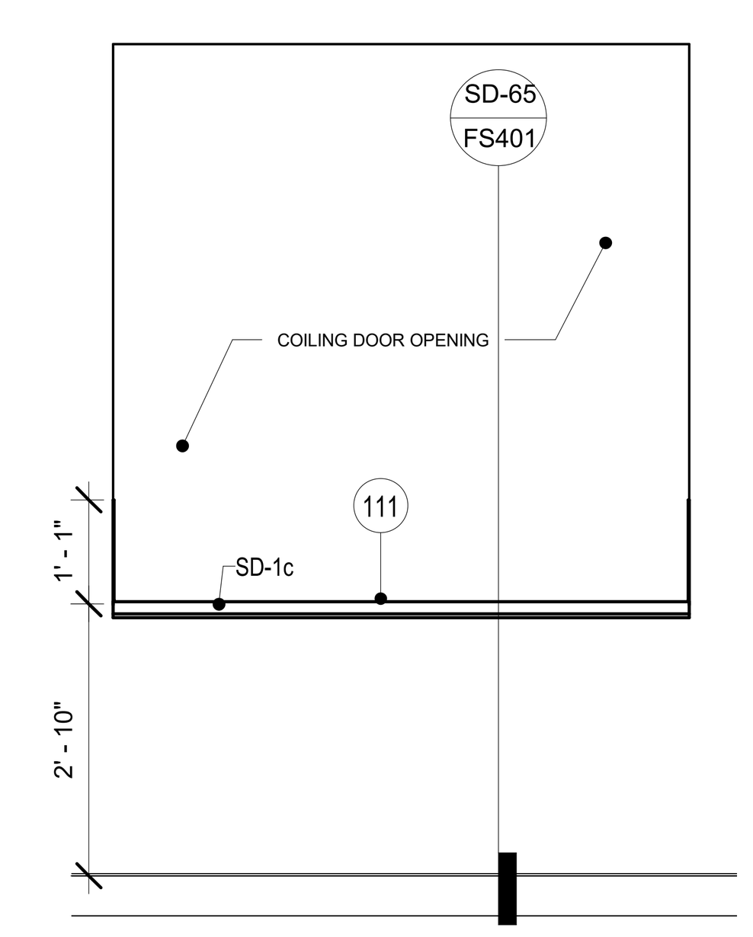
TRAY RETURN



8 SECTION THRU P.O.S. @ A LA CARTE
1" = 1'-0"



5 ITEM 111 & 118 SOILED & CLEAN DISHTABLES
1/2" = 1'-0"



6 ITEM 111 - SOILED DISHTABLE 2
1/2" = 1'-0"

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VALLEY SOUTHWOODS CTE ADDITION

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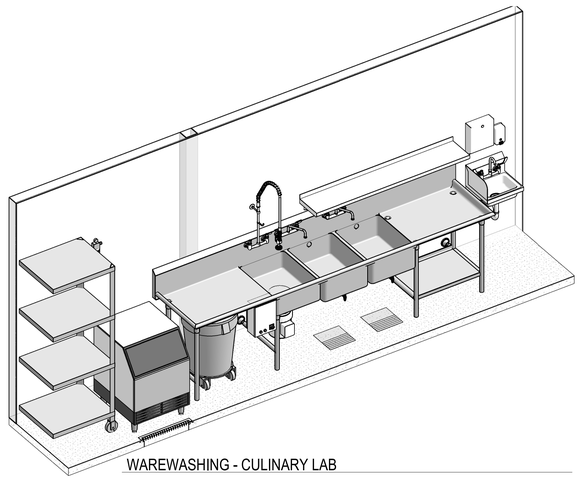
FOODSERVICE EQUIPMENT ELEVATIONS AND SECTIONS

FS202

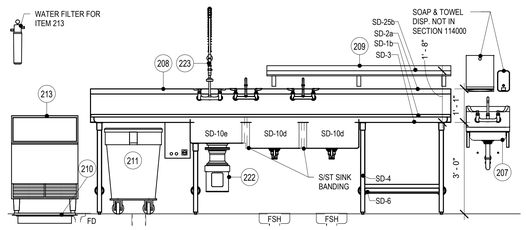
Autodesk Revit 2019

FOODSERVICE EQUIPMENT FINISH SCHEDULE			
FINISH	**MANUFACTURER**	**PRODUCT DISCRIPTION**	**REMARKS**
SSM1	LG HAUSYS	VIATERA / COTTON WHITE	SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL1	WILSONART	HIGH PRESSURE LAMINATE / MISSION MAPLE 7990-38 / 06 4100	VERTICAL CASEWORK, FINE VELVET FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL2	WILSONART	TRACELESS LAMINATE / CHARCOAL VELVET / 15504-31	TRACELESS FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL

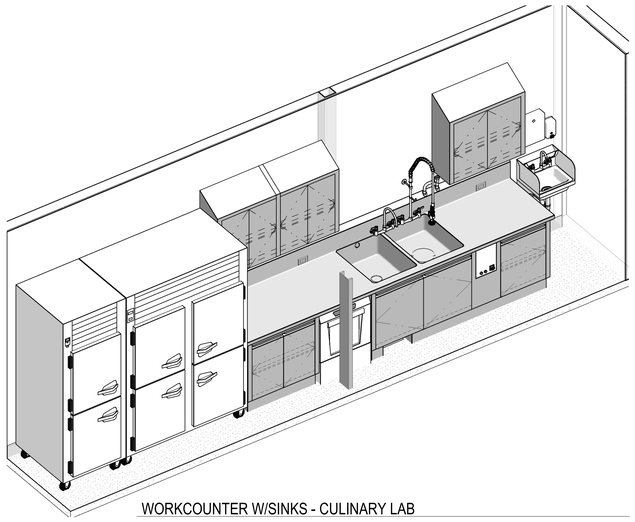
RRA KEYNOTE LEGEND	
KEYNOTE	**KEYNOTE TEXT**
SD-1a	TABLE EDGE - TURN DOWN
SD-1b	TABLE EDGE - RAISED ROLLED
SD-2a	BACKSPLASH - AT WALL
SD-3	FRAMEWORK
SD-4	TABLE & SINK LEGS
SD-6	REMOVABLE UNDERSHELF
SD-7	CABINET CONSTRUCTION
SD-10d	PREP 21"x26 1/2"x10" DP.
SD-10e	PREP @ DISPOSER 21"x26 1/2"x8" DP.
SD-14b	15"x20"x5" DP. DRAWER
SD-25b	WALL SHELVES
SD-77	CHANNEL BASE
SD-173	WALL MOUNTED CABINET - MILLWORK
SD-179	MILLWORK DOOR



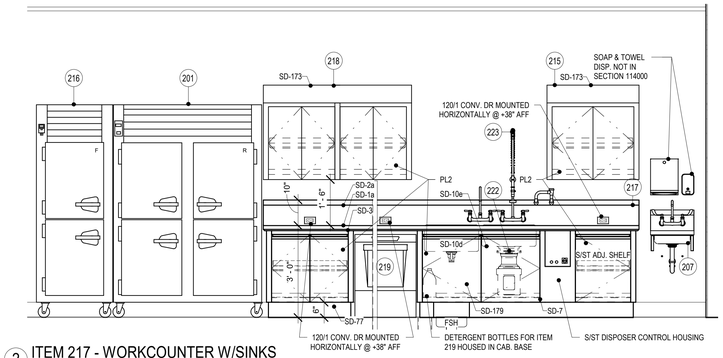
WAREWASHING - CULINARY LAB



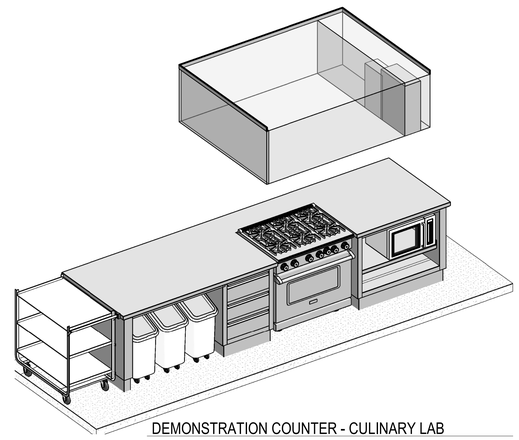
1 ITEM 208 - POT & PAN SINK
1/2" = 1'-0"



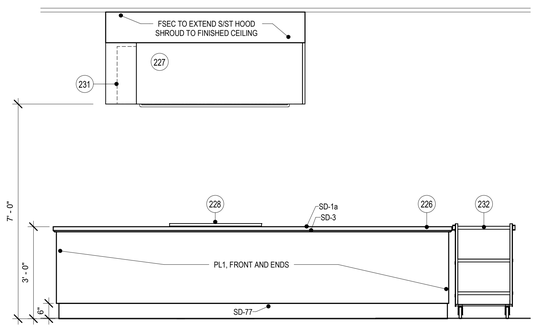
WORKCOUNTER W/SINKS - CULINARY LAB



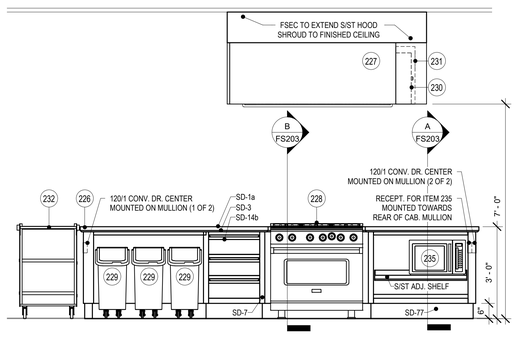
2 ITEM 217 - WORKCOUNTER W/SINKS
1/2" = 1'-0"



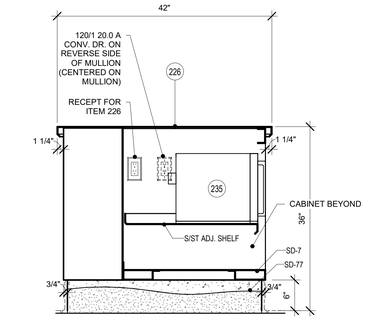
DEMONSTRATION COUNTER - CULINARY LAB



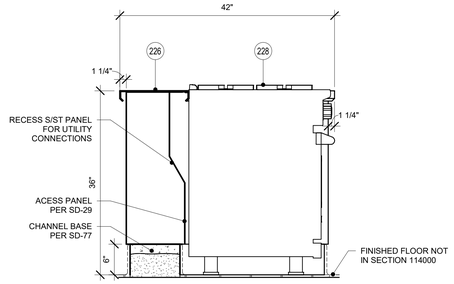
3 ITEM 226 - DEMONSTRATION COUNTER 1
1/2" = 1'-0"



4 ITEM 226 - DEMONSTRATION COUNTER 2
1/2" = 1'-0"



A SECTION THRU DEMO COUNTER @ MICROWAVE
1" = 1'-0"



B SECTION THRU RANGE AT DEMO COUNTER
1" = 1'-0"

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FOODSERVICE EQUIPMENT ELEVATIONS AND SECTIONS

FS203

BIM 360://4202990 Valley Southwoods CTE
Architect/1 DVI-DVI-FS-EQP-CENTRAL.rvt
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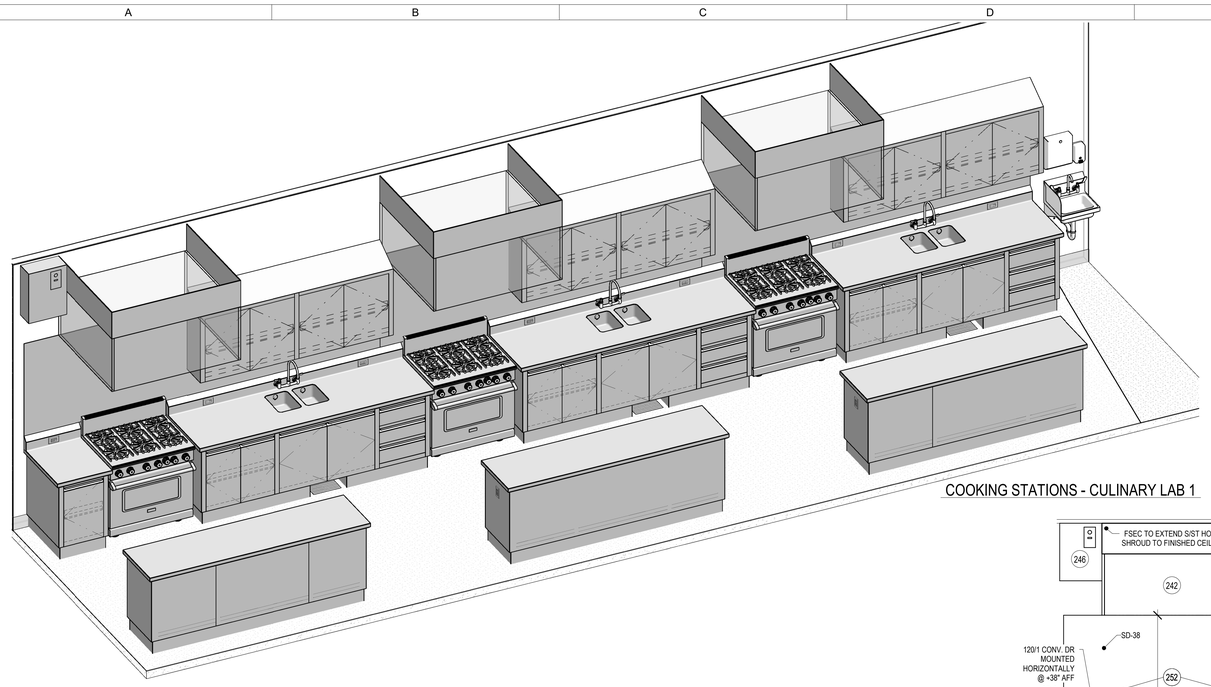
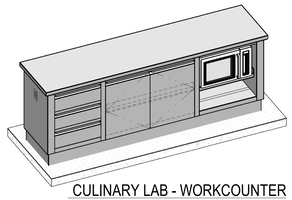


COOKING STATIONS - CULINARY LAB 1



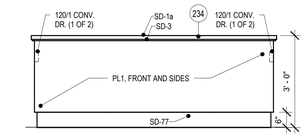
CULINARY LAB - WORKCOUNTER

FOODSERVICE EQUIPMENT FINISH SCHEDULE

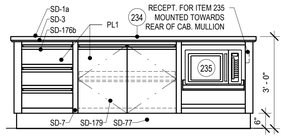
FINISH	MANUFACTURER	PRODUCT DISCRIPTION	REMARKS
SSM1	LG HAUSYS	VIATERA / COTTON WHITE	SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL1	WILSONART	HIGH PRESSURE LAMINATE / MISSION MAPLE 7990-38 / 06 4100	VERTICAL CASEWORK, FINE VELVET FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL
PL2	WILSONART	TRACELESS LAMINATE / CHARCOAL VELVET / 15504-31	TRACELESS FINISH / SEE ARCHITECTURAL DRAWINGS / VFY FINAL SELECTION PRIOR TO ORDERING MATERIAL

RRA KEYNOTE LEGEND

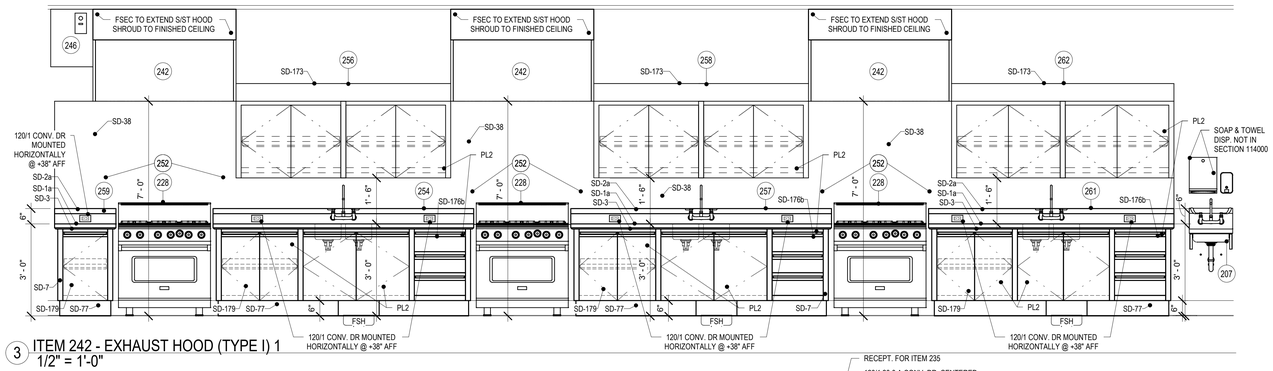
KEYNOTE	KEYNOTE TEXT
SD-1a	TABLE EDGE - TURN DOWN
SD-1d	TABLE EDGE - STRAIGHT TURN DOWN
SD-2a	BACKSPLASH - AT WALL
SD-3	FRAMEWORK
SD-7	CABINET CONSTRUCTION
SD-38	STAINLESS STEEL WALL PANEL
SD-77	CHANNEL BASE
SD-173	WALL MOUNTED CABINET - MILLWORK
SD-176b	15"x20"x5" DP. DRAWER
SD-179	MILLWORK DOOR



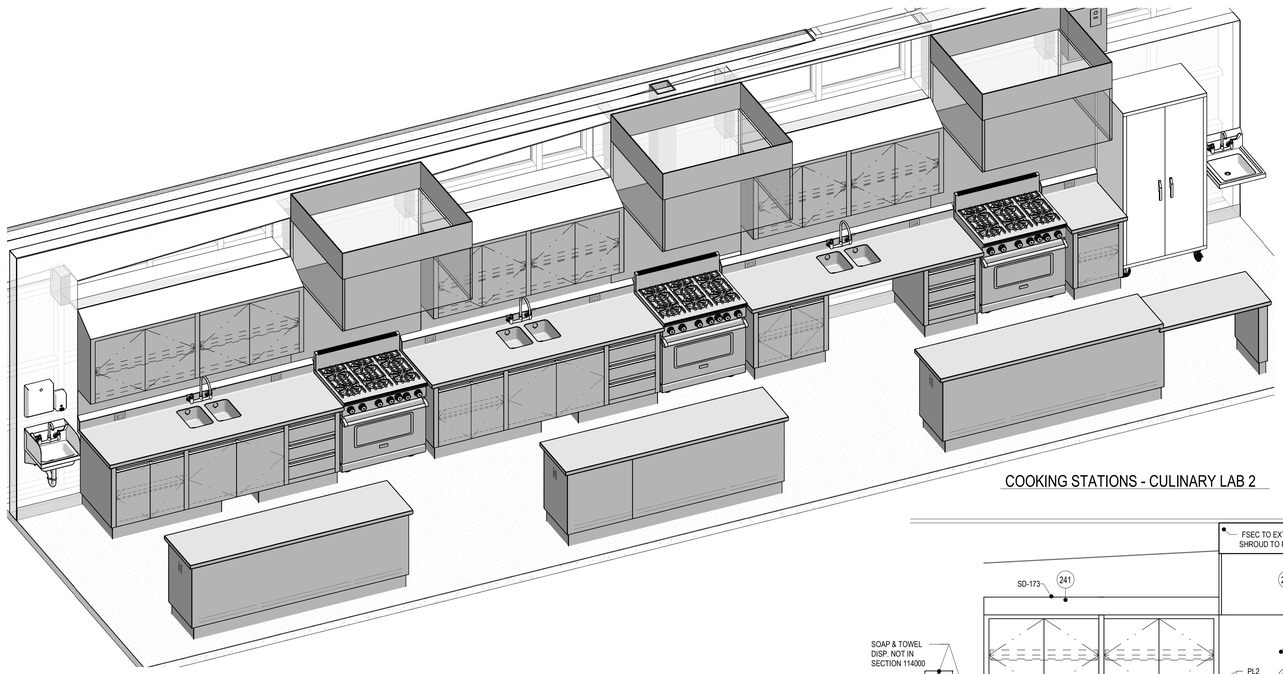
1 ITEM 234 - WORKCOUNTER 1
1/2" = 1'-0"



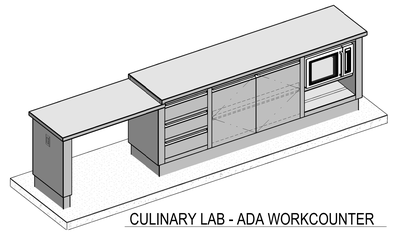
2 ITEM 234 - WORKCOUNTER 2
1/2" = 1'-0"



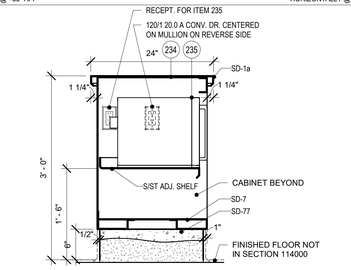
3 ITEM 242 - EXHAUST HOOD (TYPE I) 1
1/2" = 1'-0"



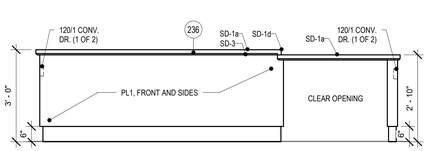
COOKING STATIONS - CULINARY LAB 2



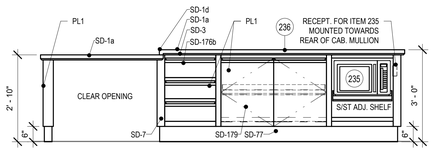
CULINARY LAB - ADA WORKCOUNTER



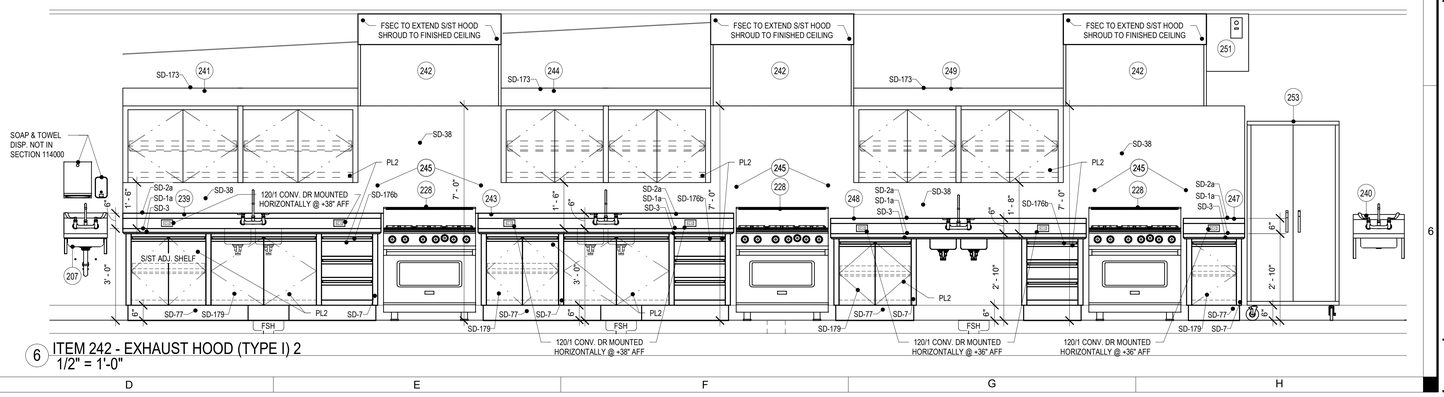
A SECTION THRU WORKCOUNTER @ MICROWAVE
1" = 1'-0"



4 ITEM 236 - WORKCOUNTER ADA 1
1/2" = 1'-0"



5 ITEM 236 - WORKCOUNTER ADA 2
1/2" = 1'-0"



6 ITEM 242 - EXHAUST HOOD (TYPE I) 2
1/2" = 1'-0"

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FOODSERVICE EQUIPMENT ELEVATIONS AND SECTIONS

FS204

BIM 360://4202990 Valley Southwoods CTE Architect/1 314 03 19 EQP CENTRAL.rvt
Friday, 5/7/2021 7:20:11 PM

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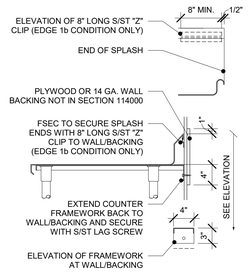
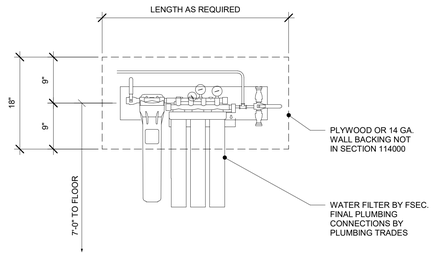
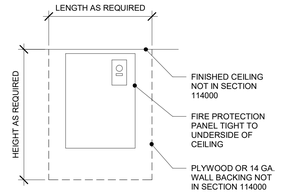


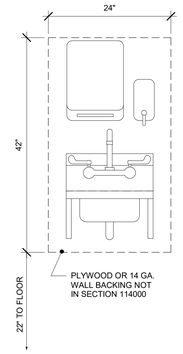
1 BACKING - BACKSPLASH
1" = 1'-0"



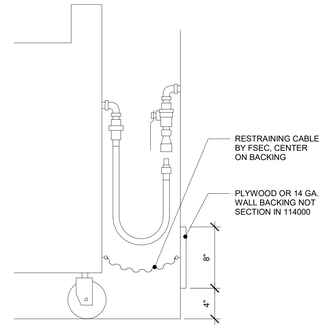
2 BACKING - CENTRAL WATER FILTER
1" = 1'-0"



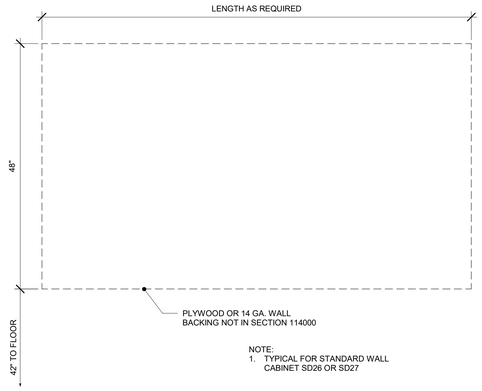
3 BACKING - FIRE PROTECTION PANEL
1" = 1'-0"



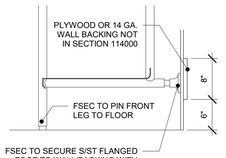
4 BACKING - HAND SINK
1" = 1'-0"



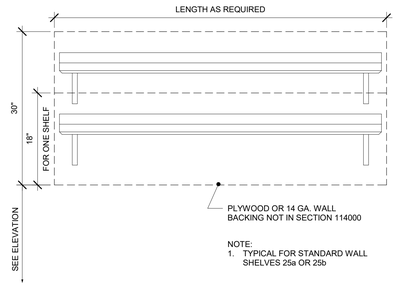
5 BACKING - RESTRAINING CABLE
1 1/2" = 1'-0"



6 BACKING - WALL CABINET
1" = 1'-0"



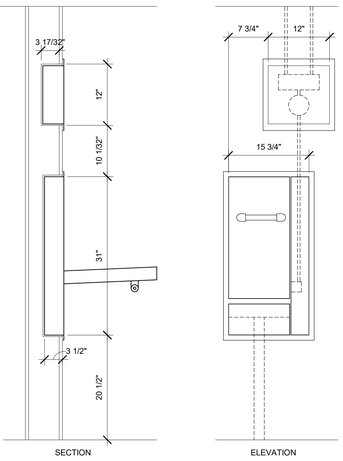
7 BACKING - WALL MOUNTED CROSSBRACE
1" = 1'-0"



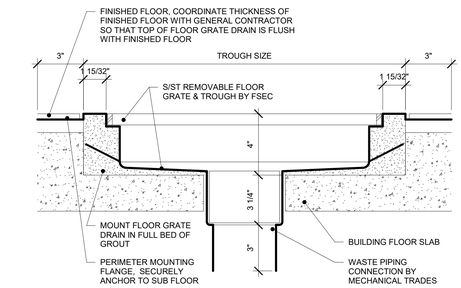
8 BACKING - WALL SHELF
1" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE OUTSIDE DIMENSIONS OF RECESSED CABINET - ALLOW TOLERANCE TO SLIDE CABINET INTO WALL CAVITY

OFFSET VALVE CABINET AS SHOWN TO ALLOW PLUMBING SUPPLY LINE TO LINE UP WITH INLET IN EYE WASH CABINET

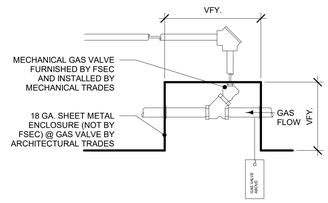


9 RECESSED EYE/FACE WASH - GUARDIAN
1" = 1'-0"

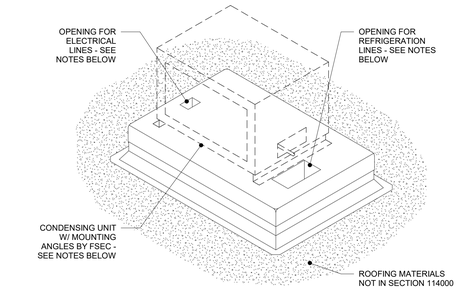


NOTE:
FLOOR TROUGHS BY MECHANICAL TRADES LOCATED IN THE FOODSERVICE AREAS SHOULD BE CONSTRUCTED IDENTICALLY.

10 FLOOR TROUGH
3" = 1'-0"

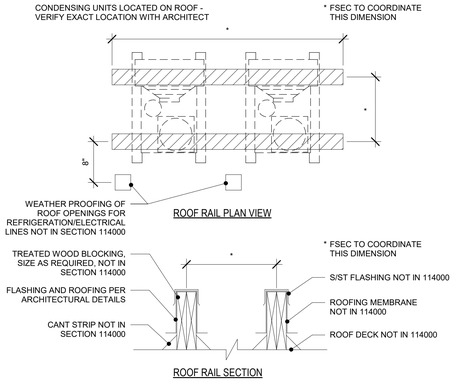


11 GAS VALVE CEILING RECESS
1" = 1'-0"



NOTES:
1. ALL CURB MATERIALS NOT IN SECTION 114000
2. SLEEVES, WEATHERPROOF SHROUDS AND SEALING OF ALL OPENINGS IN ROOF, CEILINGS AND WALLS TO BE IN ACCORDANCE WITH LOCAL FIRE AND BUILDING CODES NOT IN SECTION 114000
3. GENERAL CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH FSEC SINCE SIZE, LOCATION AND QUANTITIES OF CURBS WILL VARY

12 ROOF CURB
1" = 1'-0"



NOTES:
1. ROOF RAILS TO SUPPORT CONDENSING UNIT NOT IN SECTION 114000
2. SLEEVES, WEATHERPROOF SHROUDS AND SEALING OF ALL OPENINGS IN ROOF, CEILINGS AND WALLS TO BE IN ACCORDANCE WITH LOCAL FIRE AND BUILDING CODES NOT IN SECTION 114000
3. GENERAL CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH FSEC SINCE SIZE, LOCATION AND QUANTITIES OF CURBS WILL VARY

13 ROOF RAIL
1" = 1'-0"

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FOODSERVICE DESIGN + CONSULTING
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Minneapolis, MN 55441
952-393-3313 | www.RippeAssociates.com

VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS

625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT SPECIAL CONDITIONS DETAILS

FS300

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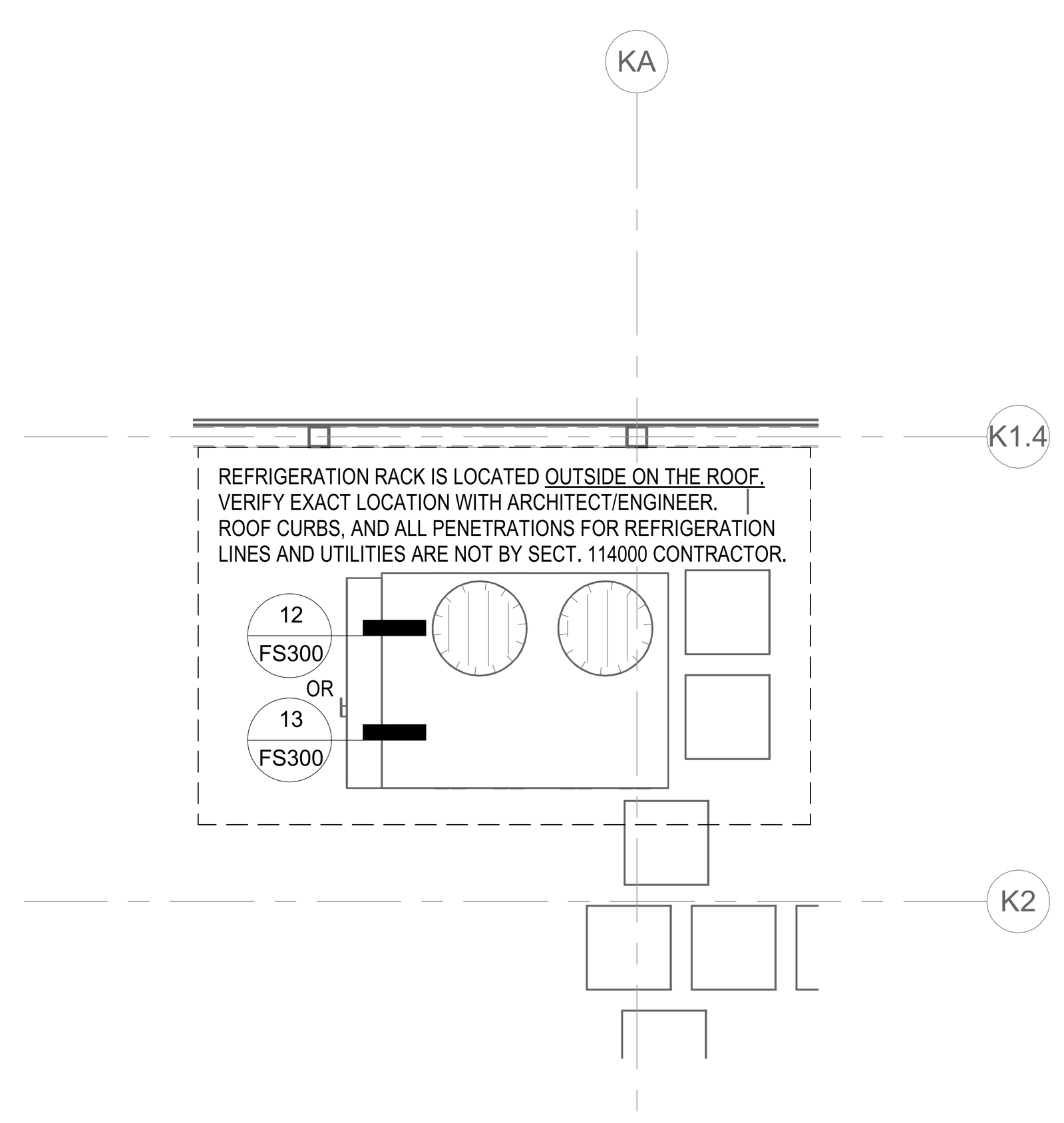
SPECIAL CONDITIONS LEGEND

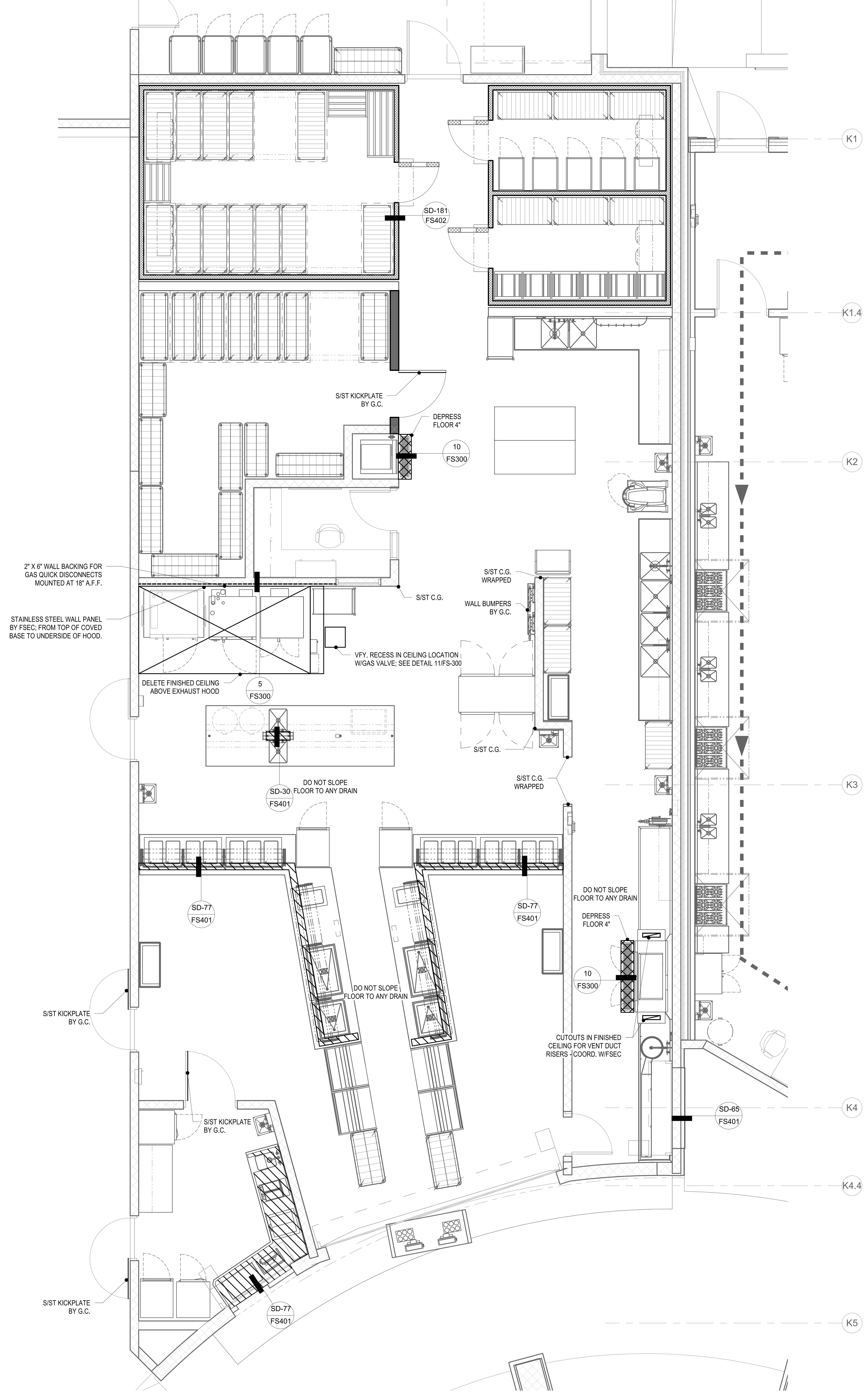
-----------	WALL BACKING
(hatch)	CHANNEL BASE
(cross-hatch)	DEPRESSED FLOOR (SEE DETAIL)
C.G.	4'-0" HIGH CORNER GUARD (NOT BY FSEC)
K.P.	KICKPLATE (NOT BY FSEC)
FSEC	FOODSERVICE EQUIPMENT CONTRACTOR

NOTE:

1. DIMENSIONS SHOWN ARE APPROXIMATE. FSEC TO COORDINATE AND VERIFY ALL DIMENSIONS IN THE FIELD WITH APPROPRIATE TRADES PRIOR TO CONSTRUCTION.
2. THE WALK-IN REFRIGERATOR/FREEZER CONDENSING UNITS ARE LOCATED APPROXIMATELY WHERE SHOWN ON PLAN. VERIFY THE EXACT LOCATION W/THE ARCHITECT/ ENGINEER. ROOF CURBS/CONCRETE PADS FOR CONDENSING UNITS & SLEEVED, SEALED PENETRATIONS IN ROOFS, FLOORS/ CEILINGS & WALLS FOR CONDENSING UNIT REFRIGERATION & UTILITY LINES ARE NOT BY THE FSEC.
3. THE FSEC WILL FURNISH AND INSTALL THE REFRIGERATION LINES BETWEEN THE CONDENSING UNITS AND SPECIFIED REFRIGERATED EQUIPMENT. IT IS THE FSEC's RESPONSIBILITY TO COORDINATE THE EXACT ROUTE TO EACH ITEM WITH THE APPROPRIATE TRADES.



2 FOODSERVICE SPECIAL CONDITIONS ROOF PLAN - REFRIGERATION
1/4" = 1'-0"



1 FOODSERVICE SPECIAL CONDITIONS PLAN - KITCHEN & SERVERY
1/4" = 1'-0"

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FOODSERVICE DESIGN + CONSULTING
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Minneapolis, MN 55343
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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT SPECIAL CONDITIONS PLAN - KITCHEN / SERVERY / ROOF

FS301

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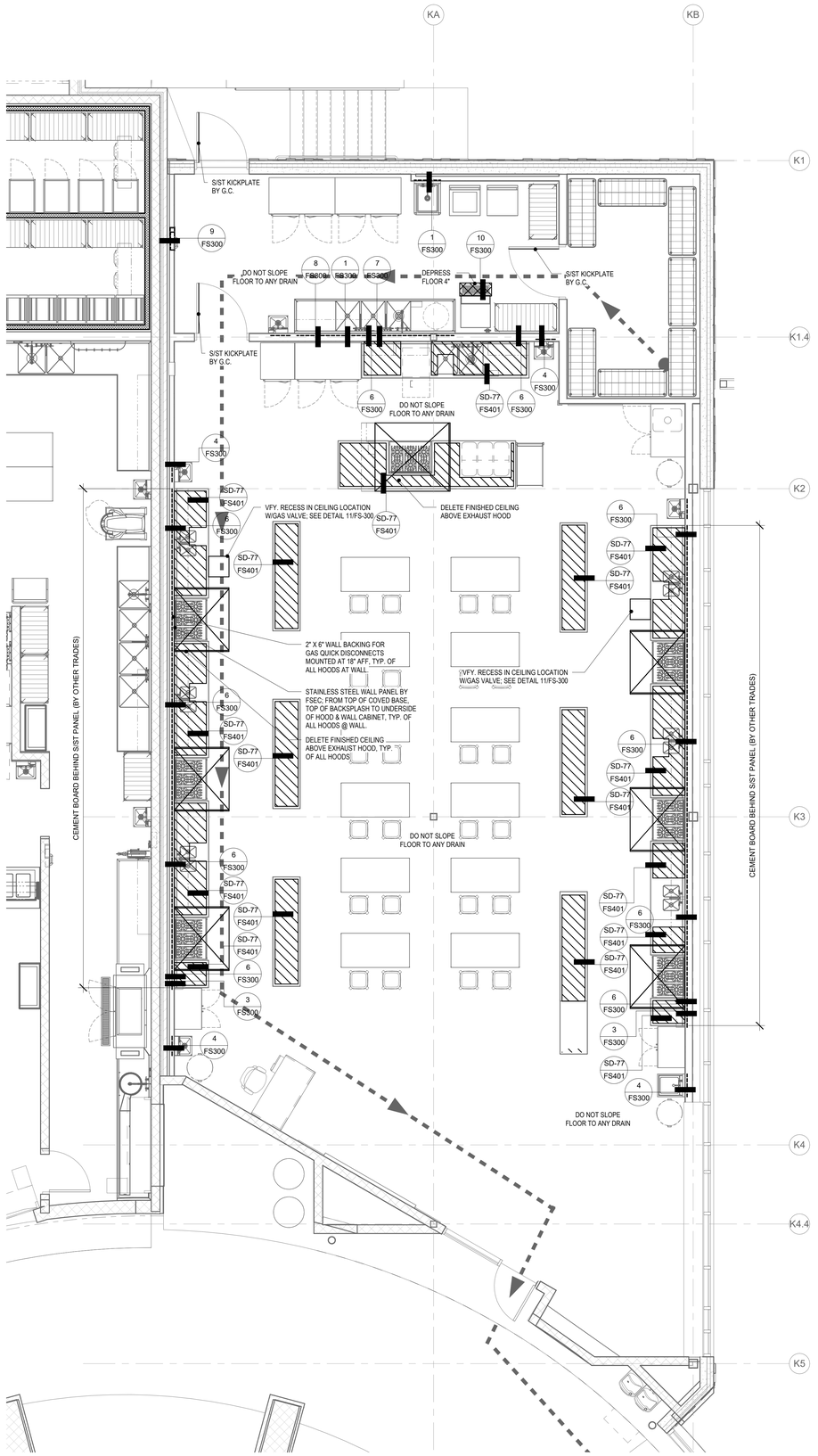

1 FOODSERVICE SPECIAL CONDITIONS PLAN - CULINARY LAB
1/4" = 1'-0"

SPECIAL CONDITIONS LEGEND

----------	WALL BACKING
	CHANNEL BASE
	DEPRESSED FLOOR (SEE DETAIL)
C.G.	4'-0" HIGH CORNER GUARD (NOT BY FSEC)
K.P.	KICKPLATE (NOT BY FSEC)
FSEC	FOODSERVICE EQUIPMENT CONTRACTOR

NOTE:

1. DIMENSIONS SHOWN ARE APPROXIMATE. FSEC TO COORDINATE AND VERIFY ALL DIMENSIONS IN THE FIELD WITH APPROPRIATE TRADES PRIOR TO CONSTRUCTION.
2. THE WALK-IN REFRIGERATOR/FREEZER CONDENSING UNITS ARE LOCATED APPROXIMATELY WHERE SHOWN ON PLAN. VERIFY THE EXACT LOCATION WITHE ARCHITECT/ ENGINEER. ROOF CURBS/CONCRETE PADS FOR CONDENSING UNITS & SLEEVED, SEALED PENETRATIONS IN ROOFS, FLOORS/ CEILINGS & WALLS FOR CONDENSING UNIT REFRIGERATION & UTILITY LINES ARE NOT BY THE FSEC.
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VALLEY SOUTHWOODS CTE ADDITION

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625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT SPECIAL CONDITIONS PLAN - CULINARY LAB

FS302

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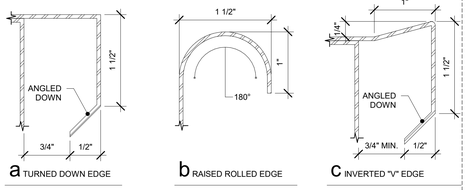
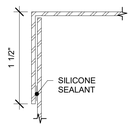


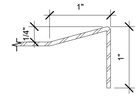
a TURNED DOWN EDGE

b RAISED ROLLED EDGE

c INVERTED "V" EDGE

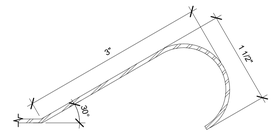


d STRAIGHT TURN DOWN

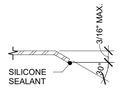


e RAISED OPENING EDGE

f OPEN

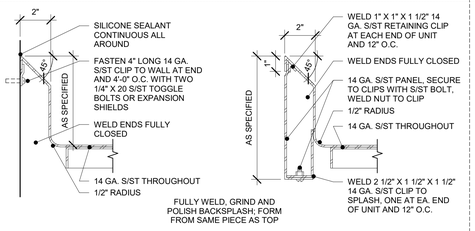


g ANGLED ROLLED EDGE



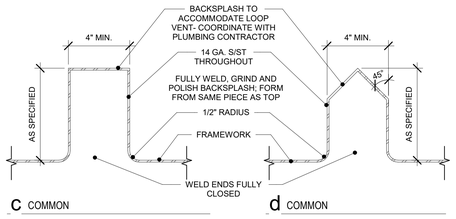
h ANGLED EDGE

SD-1 TABLE EDGES



a AT WALL

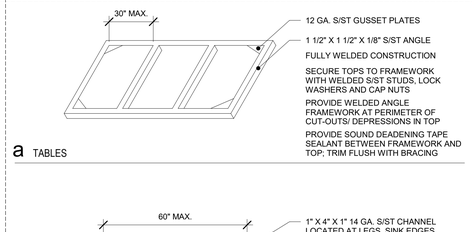
b FREE STANDING



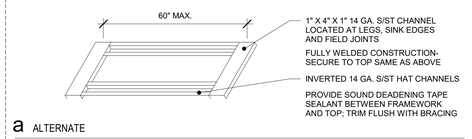
c COMMON

d COMMON

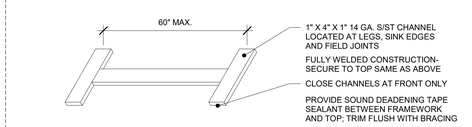
SD-2 BACKSPLASHES



a TABLES

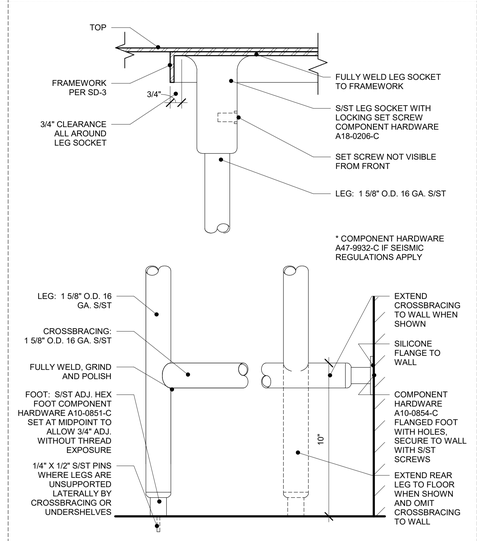


a ALTERNATE

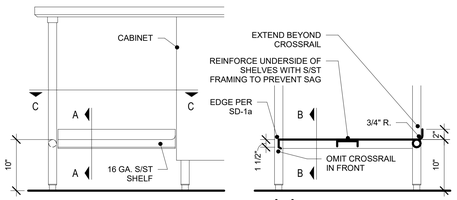


b DRAINBOARD

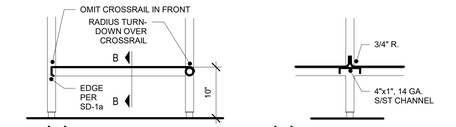
SD-3 FRAMEWORK



SD-4 TABLE & SINK LEGS

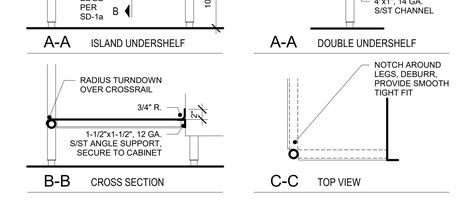


A-A SINGLE UNDERSHELF



A-A ISLAND UNDERSHELF

A-A DOUBLE UNDERSHELF

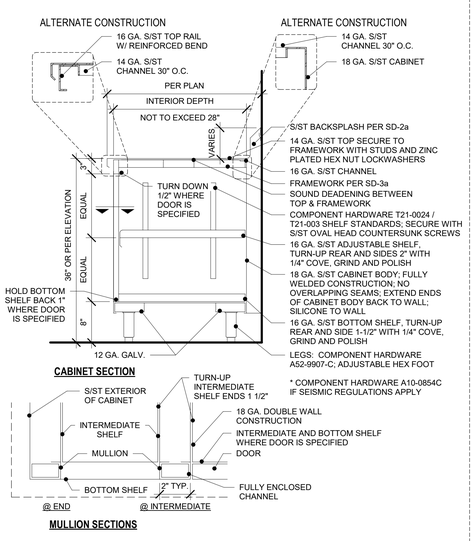


B-B CROSS SECTION

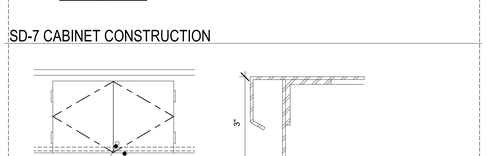
C-C TOP VIEW

NOTE: 60" MAX. LENGTH FOR ALL SHELF TYPES

SD-6 REMOVABLE UNDERSHELF

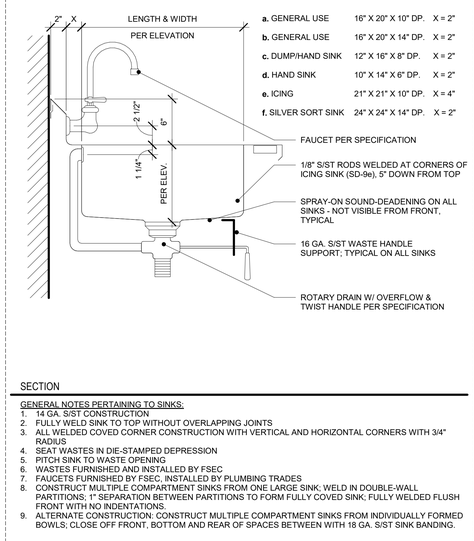


CABINET SECTION



MULLION SECTIONS

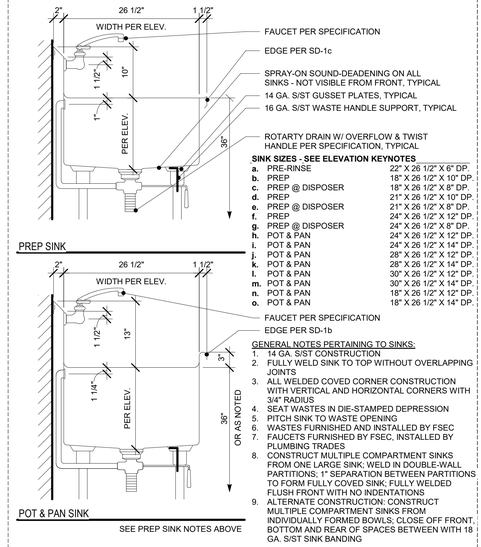
SD-7 CABINET CONSTRUCTION



SECTION

GENERAL NOTES PERTAINING TO SINKS:
1. 14 GA. S/ST CONSTRUCTION
2. FULLY WELD SINK TO TOP WITHOUT OVERLAPPING JOINTS
3. ALL WELDED COVED CORNER CONSTRUCTION WITH VERTICAL AND HORIZONTAL CORNERS WITH 3/4" RADIUS
4. SEAT WASTES IN DIE-STAMPED DEPRESSION
5. PITCH SINK TO WASTE OPENING
6. WASTES FURNISHED AND INSTALLED BY FSEC
7. FAUCETS FURNISHED BY FSEC, INSTALLED BY PLUMBING TRADES
8. CONSTRUCT MULTIPLE COMPARTMENT SINKS FROM ONE LARGE SINK; WELD IN DOUBLE-WALL PARTITIONS; 1" SEPARATION BETWEEN PARTITIONS TO FORM FULLY COVED SINK; FULLY WELDED FLUSH FRONT WITH NO INDENTATIONS.
9. ALTERNATE CONSTRUCTION: CONSTRUCT MULTIPLE COMPARTMENT SINKS FROM INDIVIDUALLY FORMED BOWLS; CLOSE OFF FRONT, BOTTOM AND REAR OF SPACES BETWEEN WITH 18 GA. S/ST SINK BANDING.

SD-9 SINKS



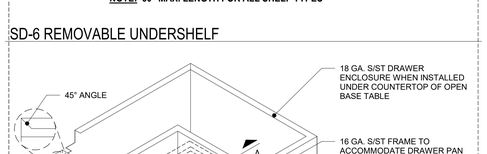
PREP SINK

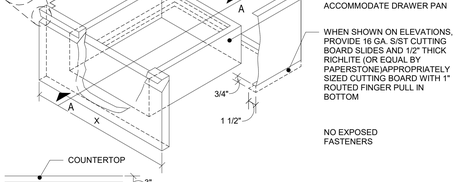
POT & PAN SINK

SEE PREP SINK NOTES ABOVE

GENERAL NOTES PERTAINING TO SINKS:
1. 14 GA. S/ST CONSTRUCTION
2. FULLY WELD SINK TO TOP WITHOUT OVERLAPPING JOINTS
3. ALL WELDED COVED CORNER CONSTRUCTION WITH VERTICAL AND HORIZONTAL CORNERS WITH 3/4" RADIUS
4. SEAT WASTES IN DIE-STAMPED DEPRESSION
5. PITCH SINK TO WASTE OPENING
6. WASTES FURNISHED AND INSTALLED BY FSEC
7. FAUCETS FURNISHED BY FSEC, INSTALLED BY PLUMBING TRADES
8. CONSTRUCT MULTIPLE COMPARTMENT SINKS FROM ONE LARGE SINK; WELD IN DOUBLE-WALL PARTITIONS; 1" SEPARATION BETWEEN PARTITIONS TO FORM FULLY COVED SINK; FULLY WELDED FLUSH FRONT WITH NO INDENTATIONS.
9. ALTERNATE CONSTRUCTION: CONSTRUCT MULTIPLE COMPARTMENT SINKS FROM INDIVIDUALLY FORMED BOWLS; CLOSE OFF FRONT, BOTTOM AND REAR OF SPACES BETWEEN WITH 18 GA. S/ST SINK BANDING

SD-10 PREP/POT & SINK LEGS



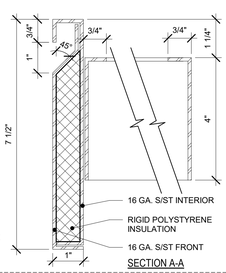


STACKED DRAWER ELEVATION

PROVIDE:
1. COMPONENT HARDWARE S52 SERIES S/ST DRAWER SLIDE W/ S/ST BEARINGS (200 LB LOAD CAPACITY), MOUNT TO SELF CLOSE
2. BUMPERS ON REAR OF DRAWER FRONT
3. 18 GA. S/ST REMOVABLE DRAWER PANS

DRAWER SIZES:

TYPE	PAN SIZES	MANUFACTURER/MODEL#	DIM X
A	12" X 20" X 4"	VOLLRATH30040	17"
B	15" X 20" X 5"	COMP. HDWR./S81-1520	20"
C	20" X 20" X 5"	COMP. HDWR./S81-2020	25"

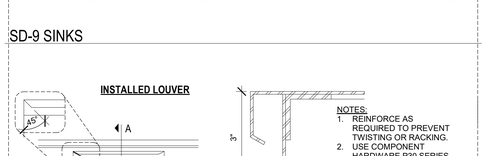


SECTION A-A

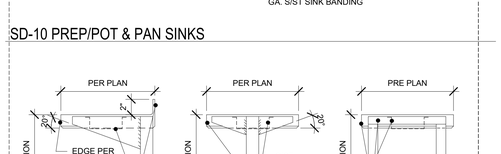
SD-14 DRAWERS - INTEGRAL PULL

NOTES:
1. REINFORCE AS REQUIRED TO PREVENT TWISTING OR RACKING.
2. USE COMPONENT HARDWARE P30 SERIES LOCK IF NOTED ON ELEVATIONS.
3. WIDTH OF DOOR NOT TO EXCEED HEIGHT.

SD-17 HINGED SOLID DOOR - INTEGRAL PULL



SD-19 HINGED LOUVERED DOOR - INTEGRAL PULL



GENERAL NOTES PERTAINING TO OVERSHELVES

1. 16 GA. S/ST SHELF, CLOSE ENDS, TURN UP ENDS 2" AT WALL
2. 16 GA. S/ST LENGTHWISE CHANNELS
3. 14 GA. S/ST BRACKETS, FULLY WELD TO UPRIGHTS
4. SECURE CHANNELS AND BRACKETS TO SHELF WITH S/ST STUDS, LOCKWASHERS AND CAP NUTS, COMPONENT HARDWARE MODEL Q31 SERIES
5. SEE SD-24 FOR UPRIGHTS
6. STAINLESS STEEL CHANNEL TO BE SIZED TO ACCEPT CONVIENCE RECEPTACLE (AS SHOWN ON ELEVATION).

SD-22 TABLE MOUNTED SHELVES

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952-933-3313 | www.RippeAssociates.com

VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT STANDARD DETAILS

FS400

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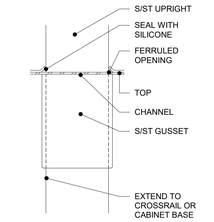
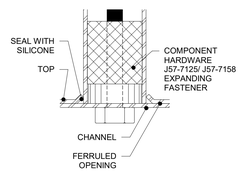
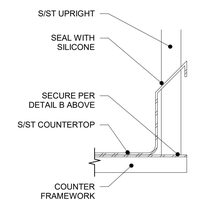


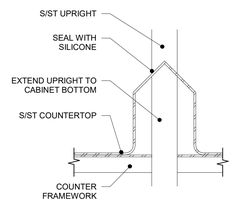
a TABLE MOUNTED



b EXPANDING FASTENER



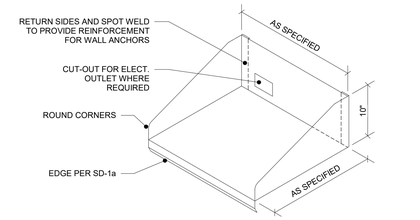
c SPLASH MOUNTED



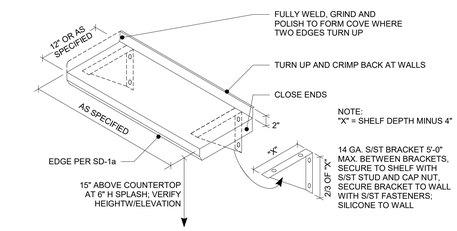
d SPLASH MOUNTED

GENERAL NOTE: 1 5/8" O.D. S/ST TUBING UPRIGHTS, 1 1/4" TUBING AT BACKSPLASH, 5'-0" O.C. MAX.

SD-24 SHELF UPRIGHTS

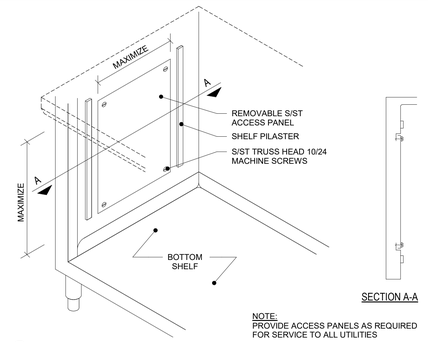


a 16 GA. S/ST SHELF

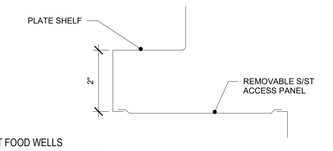


b 16 GA. S/ST SHELF

SD-25 WALL SHELVES

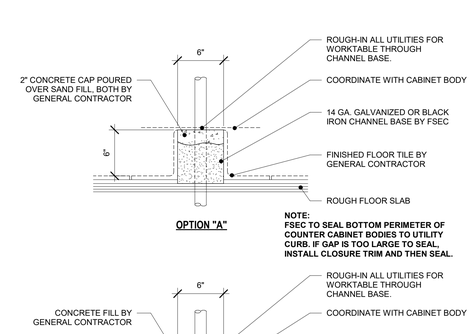


a CABINET ENDS



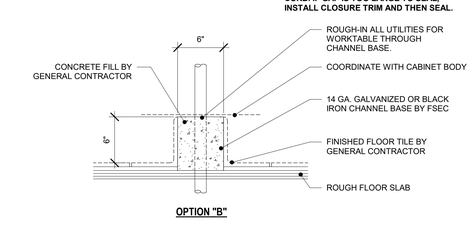
b HOT FOOD WELLS

SD-29 ACCESS PANEL



OPTION "A"

NOTE:
FSEC TO SEAL BOTTOM PERIMETER OF COUNTER CABINET BODIES TO UTILITY CURB. IF GAP IS TOO LARGE TO SEAL, INSTALL CLOSURE TRIM AND THEN SEAL.



OPTION "B"

SD-30 UTILITY CURB

NOTES:
1. SECURE SLIP JOINT TRIM WITH S/ST COUNTERSUNK SCREWS AND APPLY SILICONE SEALANT TO BOTH EDGES OF SLIP JOINT AND PANEL.
2. SLIP S/ST PANELING INTO SLIP JOINT TRIMTURN UP ENDS 2" AT WALLS AND CABINETS
3. APPLY SILICONE SEALANT TO BACK OF S/ST PANELS BEFORE INSTALLING
4. SEAL EXPOSED SEAMS AND PERIMETER OF PANELS WITH SILVER SILICONE SEALANT PER SECTION 114000 - 2.02C

SD-38 STAINLESS STEEL WALL PANEL

SD-65 SECTION @ TRAY RETURN - SCHOOL

SD-70 SHEET PAN DOLLY

"X" = 9" (2 WELLS)
"X" = 13" (3 WELLS)
"X" = 17" (4 WELLS)

GENERAL NOTES:
1. LENGTH OF S/ST ROD TO BE DETERMINED BY DISTANCE TO VALVE IN COUNTER. VALVE TO BE LOCATED INSIDE OF LTI FRAMEWORK FOR EASY INSTALL/REMOVAL OF WELLS.
2. TURN DOWN S/ST ROD 3", BOTTOM OF TURNED DOWN S/ST ROD TO BE EVEN WITH BOTTOM OF PANEL.
3. CENTER S/ST RODS ON PANEL.

SD-73 DRAIN VALVE EXTENSION - LTI

GENERAL NOTES:
1. LENGTH OF RECESS TO ACCOMMODATE REQUIRED CONTROLS
2. MOUNT THERMOSTATIC CONTROLS AND/OR SWITCHES IN PANEL AS PER MFGR'S RECOMMENDATION. COUNTERSINK S/ST SHEET METAL SCREWS TO SECURE CONTROL PLATES WHERE APPLICABLE
3. MOUNT PILOT LIGHTS IN A READILY VISIBLE LOCATION CLOSE TO THE CONTROL KNOB

SD-75 CONTROL PANEL/PLATE SHELF

CONSTRUCTION SEQUENCE:
1. 14 GA. GALVANIZED CHANNEL BASE FURNISHED AND INSTALLED BY FSEC.
2. MECHANICAL AND ELECTRICAL TRADES TO ROUGH-IN UTILITIES AS REQUIRED.
3. SAND FILL AND 2" POURED CONCRETE CAP FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR.
4. FINISHED FLOOR AND COVED BASE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR. FSEC TO COORDINATE CHANNEL BASE WITH HEIGHT OF SPECIFIED BASE COVERING.
5. EQUIPMENT CABINET BODY SET ON CHANNEL BASE IN BED OF SILICONE SEALANT BY FSEC.
6. ON BASES NARROWER THAN 3" FILL COMPLETELY WITH CONCRETE, TURN BASES OUTWARD TO FORM FLANGES AND SECURE TO SUBFLOOR.

SD-77 CHANNEL BASE

SD-120 PROTECTOR SHELF MOUNTING

ELEVATION

SECTION

1. PREWIRE ALL ELECTRICAL TO MINIMIZE LENGTH OF CORD PER LOCAL CODE.
2. CONCEAL ALL ELECTRICAL IN CHASE OR UPRIGHTS.

SD-123a CASHIER COUNTER - QUARTZ

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
4125 Westown Pkwy, Suite 100 | West Des Moines, IA 50266
515.223.8104 | www.shivehattery.com
Iowa | Illinois | Indiana

SEAL

RIPPE ASSOCIATES
FOODSERVICE DESIGN + CONSULTING
10800 Hampshire Ave. S., Suite 100
Minneapolis, MN 55438
952.933.3313 | www.RippeAssociates.com

VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

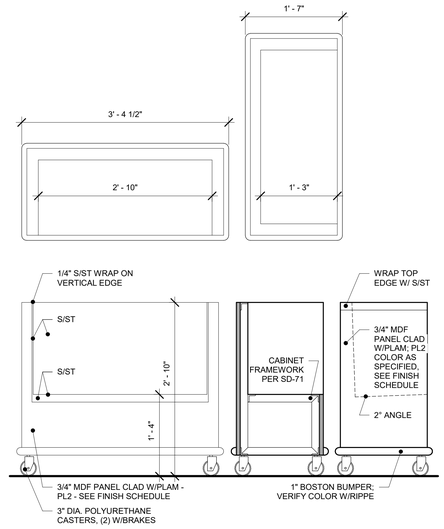
DRAWN: MM
APPROVED: Approver
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202960
FIELD BOOK:

FOODSERVICE EQUIPMENT STANDARD DETAILS

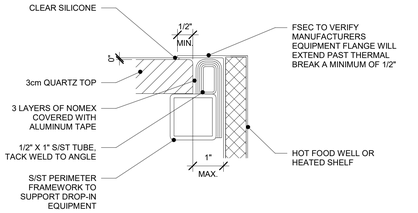
FS401

BIM 360://4202960 Valley Southwoods CTE Addition/21 SVA 001-FS EQP CENTRAL.rvt
Printed: 10/29/2021 1:57:47 PM

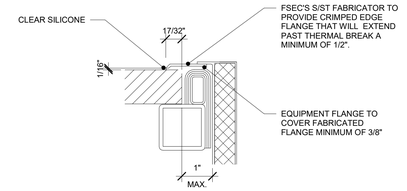
Autodesk Revit 2019



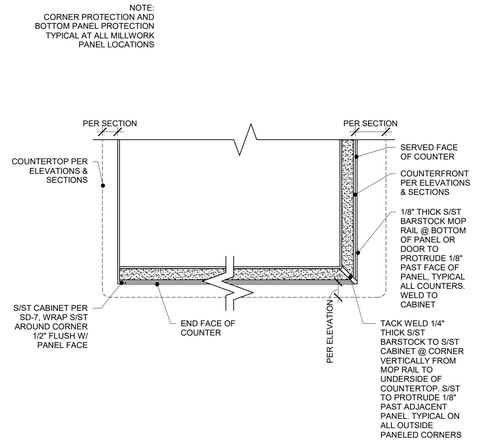
SD-127 MOBILE TRAY DISPENSER



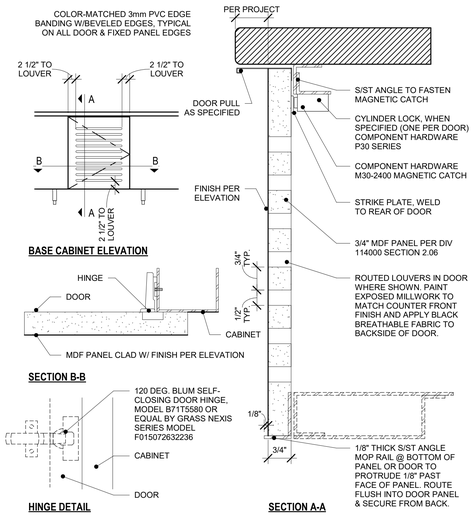
*USE FABRICATED FLANGE DETAIL BELOW **ONLY** ON ITEMS THAT MANUFACTURERS EQUIPMENT FLANGE WILL NOT COVER THERMAL BREAK PER DETAIL ABOVE



SD-135 THERMAL BREAK



SD-170 MILLWORK EDGE PROTECTION



SD-169 MILLWORK LOUVERED DOOR

SD-173 WALL MOUNTED CABINET - MILLWORK

SD-176 DRAWERS - MILLWORK

SD-179 MILLWORK DOOR

NOTE:
1. INSULATION – STYROFOAM 40 (PH: 800-232-2436) OR CERTIFOAM 40 (PH: 763-477-5854). HIGH DENSITY EXTRUDED POLYSTYRENE BOARD RATED AT 40 TO 50 PSI, TOTAL THICKNESS OF 4" IN REFRIGERATOR AND 6" IN FREEZER, STAGGER LAYERS AND SPLINE JOINTS.
2. VAPOR BARRIER – MINIMUM OF 6 MIL POLYETHYLENE SHEET APPLIED DRY WITH 4" OVERLAP, SEALED AT PERIMETER AND JOINTS WITH ASPHALT EMILSION ADHESIVE, TURN ENDS UP AT PERIMETER.
3. ALL MATERIALS EXCEPT WALK-IN WALL & DOOR COMPONENTS PROVIDED BY GENERAL CONTRACTOR.
4. THERMAL BREAK – CYPRESS OR CEDAR
5. DIVISION 11400 TO SECURELY ANCHOR SCREEDS TO BUILDING FLOOR IN BED OF SILICONE SEALANT.

SD-181 WALK-IN DOOR & WALL PANELS

A) EQUIPMENT CUT-OUT EDGE

B) COUNTER ENDS @ MILLWORK

S/ST BAR STOCK TO EXTEND PAST FRONT & REAR COUNTER TOP 1/8"

S/ST BAR STOCK TO BE DEBURRED AND POLISHED

C) COUNTER ENDS - PLAN VIEW

SD-214 QUARTZ/STONE EDGE PROTECTION

NOTES:
1. VERIFY WIDTH AND HEIGHT OF EQUIPMENT TO BE PROTECTED PRIOR TO FABRICATION
2. STACK 2 HIGH IF REQUIRED ALLOWING FOR REMOVAL OF LOWER GUARD

SD-216 GUARD DETAIL

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
4125 Westown Pkwy, Suite 100 | West Des Moines, IA 50266
515.223.8104 | www.shivehattery.com
Iowa | Illinois | Indiana

SEAL
RIPPE ASSOCIATES
FOODSERVICE DESIGN + CONSULTING
10800 Hillary Circle N, Suite 100
Minneapolis, MN 55343
952.393.0313 | www.RippeAssociates.com

VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED: Approver
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT STANDARD DETAILS

FS402

FOODSERVICE EQUIPMENT ELECTRICAL SCHEDULE - KITCHEN/SERVERY/ROOF

ITEM #	DESCRIPTION		VOLTS	PHASE	AMPS	WATTS	HP	CONN. TYPE	RI HEIGHT	REMARKS
8	RACKED REFRIGERATION SYTEM		208 V	3	63.6 A		12.6	DIRECT	0"	NOTE D / MOPD: 80 AMP / MIN. CKT AMPACITY: 68.8 AMPS
8	FREEZER SYSTEM COIL	A1	208 V	1	14.3 A			DIRECT	96"	NOTE E
8	FREEZER SYSTEM COIL	A2	208 V	1	14.3 A			DIRECT	96"	NOTE E / 75% REDUNDANCY
8	REFRIGERATION SYSTEM COIL	B	120 V	1	1.6 A			DIRECT	96"	NOTE E
8	REFRIGERATION SYSTEM COIL	C	120 V	1	1.6 A			DIRECT	96"	NOTE E
11B	ICE MAKER		120 V	1	15.2 A	1824 W		DIRECT	48"	NOTE X
18B	AIR CURTAIN		120 V	1	5.1 A		1/2	DIRECT	96"	NOTE X
22	DISPOSER W/SPRAY RINSE	A								EXISTING, NO CHANGES / FSEC TO REMOVE FOR FLOOR REPLACEMENT, THEN RESET IN SAME PLACE FOR FINAL UTILITY RECONNECTIONS BY MECH. TRADES
48	DISPOSER W/SPRAY RINSE	A	208 V	3	3.6 A		2	DIRECT	10"	NOTE C / SEE DETAIL
57A	COMBI OVEN, 2-SEC.	A	208 V	1	3.7 A			RECEPT.	18"	NOTE L / DEDICATED CIRCUIT
57A		B	208 V	1	3.7 A			RECEPT.	48"	NOTE L / DEDICATED CIRCUIT
58	CONVECTION OVEN, 2-SEC.	A	120 V	1	6.0 A		1/2	RECEPT.	18"	NOTES L & X
58	CONVECTION OVEN, 2-SEC.	B	120 V	1	6.0 A		1/2	RECEPT.	36"	NOTES L & X
68	60 QUART MIXER		208 V	3	7.4 A	2664 W	2.7	DIRECT	48"	NOTE X
71	EXHAUST HOOD (TYPE I)		120 V	1		400 W		DIRECT	118"	DFA / HOOD LIGHT POWER FROM #75A / SEE DETAIL
73	FIRE PROTECTION SYSTEM		120 V	1				DIRECT		NOTES J & L / AT CEILING / WIRING FOR CONTROLS / SEE DETAIL / TO SERVE #71
74A	ROLL-IN COMBI OVEN		208 V	1	10.6 A	2200 W		DIRECT	18"	NOTE L
75	EXHAUST HOOD CONTROL PANEL	A	120 V	1				DIRECT		@ CLG / SEE DETAIL / TO SERVE #71 / 15.0 A CKT.
75	EXHAUST HOOD USER INTERFACE	B							48"	SEE DETAIL
76	WORKCOUNTER W/SINKS & OVERSHELF		120 V	1				DIRECT	10"	NOTE A / (5) 20.0 A CIRCUITS TO SERVICE (5) CONV. DRS
78	ROLL-THRU REFRIGERATOR, 2-SEC.		120 V	1	13.4 A		1/2	RECEPT.	86"	
82	SERVING COUNTER		120/208 V	3				DIRECT	10"	NOTE B / STUB UP THRU CURB / LOAD CENTER PANEL 'A' / SEE SCHEDULE
83	PROTECTOR SHELF SYSTEM	A	120/208 V	1	2.7 A	531 W		DIRECT	0"	SERVICED THRU #82
83	PROTECTOR SHELF SYSTEM	B	120/208 V	1	2.7 A	531 W		DIRECT	0"	SERVICED THRU #82
83	PROTECTOR SHELF SYSTEM	C	120/208 V	1	4.9 A	981 W		DIRECT	0"	SERVICED THRU #82
83	PROTECTOR SHELF SYSTEM	D	120 V	1	0.2 A	20 W		DIRECT	0"	SERVICED THRU #82
83	PROTECTOR SHELF SYSTEM	E	120 V	1	0.1 A	17 W		DIRECT	0"	SERVICED THRU #82
83	PROTECTOR SHELF SYSTEM	F	120 V	1	0.1 A	12 W		DIRECT	0"	SERVICED THRU #82
84	HOT/COLD PAN, 4-WELL		120/208 V	1	14.4 A	2996 W		RECEPT.	0"	SERVICED THRU #82 & #88
85	HOT/COLD PAN, 1-WELL		120/208 V	1	7.2 A	1498 W		RECEPT.	0"	SERVICED THRU #82 & #88
86	HOT/COLD PAN, 3-WELL		120/208 V	1	12.0 A	2496 W		RECEPT	0"	SERVICED THRU #82 & #88
87	MOBILE WARMING CABINET	A	120 V	1	16.0 A	2000 W		RECEPT.	0"	SERVICED THRU #82 & #88
87	MOBILE WARMING CABINET	B	120 V	1	16.0 A	2000 W		RECEPT.	0"	
88	SERVING COUNTER		120/208 V	3				DIRECT	10"	NOTE B / STUB UP THRU CURB / LOAD CENTER PANEL 'B' / SEE SCHEDULE
89	PROTECTOR SHELF SYSTEM	A	120/208 V	1	2.7 A	531 W		DIRECT	0"	SERVICED THRU #88
89	PROTECTOR SHELF SYSTEM	B	120/208 V	1	2.7 A	531 W		DIRECT	0"	SERVICED THRU #88
89	PROTECTOR SHELF SYSTEM	C	120/208 V	1	4.9 A	981 W		DIRECT	0"	SERVICED THRU #88
89	PROTECTOR SHELF SYSTEM	D	120 V	1	0.2 A	20 W		DIRECT	0"	SERVICED THRU #88
89	PROTECTOR SHELF SYSTEM	E	120 V	1	0.1 A	17 W		DIRECT	0"	SERVICED THRU #88
89	PROTECTOR SHELF SYSTEM	F	120 V	1	0.1 A	12 W		DIRECT	0"	SERVICED THRU #88
91	DROP-IN COLD PAN, 2-WELL		120 V	1	7.0 A	840 W	1/3	RECEPT.	0"	SERVICED THRU #82 & #88
92	DROP-IN COLD PAN, 3-WELL		120 V	1	7.0 A	840 W	1/3	RECEPT.	0"	SERVICED THRU #82 & #88
93	REFRIGERATED DISPLAY CASE		120 V	1	14.6 A	1273 W		RECEPT.	0"	SERVICED THRU #82 & #88
96	MOBILE CASHIER STAND		120 V	1				RECEPT.	18"	NOTES A, N & T / TO SERVICE ITEM #98
98	P.O.S. SYSTEM		120 V	1	5.0 A	600 W		RECEPT.	0"	NOTES M & N / SERVICED THRU #96 & #101 / VFY UTILITIES W/OWNER
101	A LA CARTE COUNTER		120 V	1				DIRECT	10"	NTOTES A & N / TO SERVICE #98 & DISPLAY LIGHTS
102	NOVELTY ICE CREAM DISPLAY		120 V	1	2.1 A	252 W	1/8	RECEPT.	18"	
103	FROZEN DRINK MACHINE		120 V	1	12.0 A	1440 W		RECEPT.	48"	VFY. UTILITIES W/OWNERS VENDOR
104	REACH-IN REFRIGERATOR, 1-SEC.		120 V	1	7.0 A		1/3	RECEPT.	86"	
108	REACH-IN FREEZER, 1-SEC.		120 V	1	9.4 A		1/2	RECEPT.	86"	
112	WASTE COLLECTOR		120 V	1	11.0 A	1320 W	3/4	DIRECT	18"	
116	DISHMACHINE W/BOOSTER HEATER		480 V	3	85.0 A		4.17	DIRECT	66"	NOTES S & V

LOAD CENTER PANEL 'A' 120/208/3 ITEM 82

ITEM #	DESCRIPTION		QTY	VOLTS	PHASE	AMPS	KW	MULTIPLIER	CIRCUIT KW
	SPARE CIRCUIT		2	120 V	1	20.0 A	2.40 kW	1.00	4.80 kW
82	CONVENIENCE RECEPTACLE		1	120 V	1	20.0 A	2.40 kW	1.00	2.40 kW
83	PROTECTOR SHELF SYSTEM	A	1	120/208 V	1	2.7 A	0.53 kW	1.25	0.66 kW
83	PROTECTOR SHELF SYSTEM	B	1	120/208 V	1	2.7 A	0.53 kW	1.25	0.66 kW
83	PROTECTOR SHELF SYSTEM	C	1	120/208 V	1	4.9 A	0.98 kW	1.25	1.23 kW
83	PROTECTOR SHELF SYSTEM	D	1	120 V	1	0.2 A	0.02 kW	1.25	0.03 kW
83	PROTECTOR SHELF SYSTEM	E	1	120 V	1	0.1 A	0.02 kW	1.25	0.02 kW
83	PROTECTOR SHELF SYSTEM	F	1	120 V	1	0.1 A	0.01 kW	1.25	0.02 kW
84	HOT/COLD PAN, 4-WELL		1	120/208 V	1	14.4 A	3.00 kW	1.25	3.75 kW
85	HOT/COLD PAN, 1-WELL		1	120/208 V	1	7.2 A	1.50 kW	1.25	1.87 kW
86	HOT/COLD PAN, 3-WELL		1	120/208 V	1	12.0 A	2.50 kW	1.25	3.12 kW
87	MOBILE WARMING CABINET	A	1	120 V	1	16.0 A	2.00 kW	1.25	2.50 kW
91	DROP-IN COLD PAN, 2-WELL		1	120 V	1	7.0 A	0.84 kW	1.25	1.05 kW
92	DROP-IN COLD PAN, 3-WELL		1	120 V	1	7.0 A	0.84 kW	1.25	1.05 kW
93	REFRIGERATED DISPLAY CASE		2	120 V	1	14.6 A	1.27 kW	1.25	3.18 kW
Grand total									26.34 kW

LOAD CENTER PANEL 'B' 120/208/3 ITEM 88

ITEM #	DESCRIPTION		QTY	VOLTS	PHASE	AMPS	KW	MULTIPLIER	CIRCUIT KW
	SPARE CIRCUIT		2	120 V	1	20.0 A	2.40 kW	1.00	4.80 kW
84	HOT/COLD PAN, 4-WELL		1	120/208 V	1	14.4 A	3.00 kW	1.25	3.75 kW
85	HOT/COLD PAN, 1-WELL		1	120/208 V	1	7.2 A	1.50 kW	1.25	1.87 kW
86	HOT/COLD PAN, 3-WELL		1	120/208 V	1	12.0 A	2.50 kW	1.25	3.12 kW
87	MOBILE WARMING CABINET	A	1	120 V	1	16.0 A	2.00 kW	1.25	2.50 kW
88	CONVENIENCE RECEPTACLE		1	120 V	1	20.0 A	2.40 kW	1.00	2.40 kW
89	PROTECTOR SHELF SYSTEM	A	1	120/208 V	1	2.7 A	0.53 kW	1.25	0.66 kW
89	PROTECTOR SHELF SYSTEM	B	1	120/208 V	1	2.7 A	0.53 kW	1.25	0.66 kW
89	PROTECTOR SHELF SYSTEM	C	1	120/208 V	1	4.9 A	0.98 kW	1.25	1.23 kW
89	PROTECTOR SHELF SYSTEM	D	1	120 V	1	0.2 A	0.02 kW	1.25	0.03 kW
89	PROTECTOR SHELF SYSTEM	E	1	120 V	1	0.1 A	0.02 kW	1.25	0.02 kW
89	PROTECTOR SHELF SYSTEM	F	1	120 V	1	0.1 A	0.01 kW	1.25	0.02 kW
91	DROP-IN COLD PAN, 2-WELL		1	120 V	1	7.0 A	0.84 kW	1.25	1.05 kW
92	DROP-IN COLD PAN, 3-WELL		1	120 V	1	7.0 A	0.84 kW	1.25	1.05 kW
93	REFRIGERATED DISPLAY CASE		2	120 V	1	14.6 A	1.27 kW	1.25	3.18 kW
Grand total									26.34 kW

GENERAL NOTES - ELECTRICAL

NOTE: GENERAL NOTES REFER TO GENERAL CONDITIONS. ALL CONDITIONS MAY NOT EXIST ON THIS PROJECT.

1. THESE DRAWINGS ARE FOR USE BY THE PROJECT ENGINEERS IN PREPARING THEIR DRAWINGS. THESE DRAWINGS ARE INCIDENTAL TO OUR SERVICES AND MUST BE REVIEWED AND APPROVED BY A PROPERLY LICENSED DESIGN PROFESSIONAL BEFORE BEING USED FOR ANY OTHER PURPOSES. RIPPE ASSOCIATES IS NOT LICENSED AS A DESIGN PROFESSIONAL AND DOES NOT HOLD ITSELF OUT AS SUCH.
2. SERVICES SHOWN ON THIS PLAN ARE EQUIPMENT REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. LOCATIONS, SIZES AND HEIGHTS ABOVE FINISHED FLOOR ARE APPROXIMATELY AS REQUIRED BY EQUIPMENT TO BE FURNISHED. SINCE MULTIPLE SOURCES FOR THE EQUIPMENT MAY BE SPECIFIED, SLIGHT VARIATIONS IN UTILITY LOADS AND CONNECTION SIZES CAN OCCUR. DESIGN BUILDING UTILITY SYSTEM ACCORDINGLY AND ADD NOTES TO THE ELECTRICAL CONTRACT DOCUMENTS INDICATING SLIGHT VARIATIONS ARE TO BE INCLUDED IN ELECTRICAL TRADES WORK AT NO ADDITIONAL COST.
3. THESE DRAWINGS ARE NOT TO BE USED TO ROUGH-IN AND/OR TO SET SLEEVES BY, SINCE REQUIRED ALLOWANCES MUST BE MADE FOR MULTIPLE EQUIPMENT SOURCES AND FOR VALVES, FITTINGS, DISCONNECTS, ETC. WHICH WILL BE FURNISHED UNDER ELECTRICAL TRADES. FSEC IS RESPONSIBLE FOR PREPARING DIMENSIONED ROUGH-IN AND SLEEVE LOCATION PLANS PER SPECIFICATIONS TO ACCOMMODATE THE EXACT EQUIPMENT BEING PROVIDED.
4. ALL 120V DUPLEX RECEPTACLES TO BE MINIMUM 20 AMP. CIRCUIT AND MOUNTED VERTICALLY, UNLESS OTHERWISE NOTED ON PLAN.
5. ELECTRICAL TRADES TO PROVIDE ALL NECESSARY DISCONNECT SWITCHES FOR EQUIPMENT INSTALLED AHEAD OF EQUIPMENT CONTROL OR SWITCH.
6. THE FSEC IS RESPONSIBLE FOR SETTING THE EQUIPMENT IN PLACE. FINAL CONNECTION AND INTERCONNECTION FOR THIS EQUIPMENT IS THE RESPONSIBILITY OF THE ELECTRICAL TRADES.
7. HOLES IN FOODSERVICE EQUIPMENT FOR ELECTRICAL SERVICES PROVIDED BY FSEC.
8. DUE TO MULTIPLE SOURCES FOR EQUIPMENT ITEMS NEMA PLUG CONFIGURATIONS CAN VARY. NOTE ON THE ELECTRICAL CONTRACT DOCUMENTS THAT THE ELECTRICAL TRADES ARE TO COORDINATE PLUG CONFIGURATIONS WITH THE FSEC AND INCLUDE THESE VARIATIONS IN THEIR WORK AT NO ADDITIONAL COST.
9. BUILDING POWER PANEL BREAKERS SERVING FOODSERVICE EQUIPMENT SHOULD BE EQUIPPED WITH GROUND FAULT INTERRUPT PROTECTION IN ACCORDANCE WITH NATIONAL ELECTRIC CODE FOLLOWED BY MUNICIPALITY AND/OR LOCAL CODE. DO NOT PROVIDE GROUND FAULT INTERRUPT RECEPTACLES AT THE EQUIPMENT UNLESS RECEPTACLE IS READILY ACCESSIBLE WITHOUT HAVING TO MOVE EQUIPMENT OR EMPLOY A STEP LADDER.
10. UTILITY CONNECTIONS SHOWN ARE THOSE REQUIRED TO SERVICE FOODSERVICE EQUIPMENT ONLY. ELECTRICAL TRADES SHOULD VERIFY WITH OWNER WHETHER ADDITIONAL UTILITIES ARE REQUIRED FOR EXISTING VENDOR-FURNISHED OR FUTURE NON-FOODSERVICE EQUIPMENT LOCATED WITHIN THE AREA SHOWN ON THIS PLAN.
11. DESIGN INCOMING UTILITY SERVICES TO ACCOMMODATE 100% OF THE LOADS INDICATED; DO NOT APPLY DIVERSITY FACTOR AS ALL EQUIPMENT CAN BE OPERATING SIMULTANEOUSLY DURING PEAK SERVICE PERIODS.

SCHEDULE NOTES - ELECTRICAL

NOTE: SCHEDULE NOTES PERTAIN TO INDIVIDUAL ITEMS AS INDICATED IN THE FOODSERVICE EQUIPMENT ELECTRICAL SCHEDULE.

A. THE FSEC WILL PROVIDE RECEPTACLES IN FABRICATED EQUIPMENT AS REQUIRED AND WILL PREWIRE ELECTRICAL COMPONENTS IN COUNTER TO JUNCTION BOXES IN COUNTER BASE FOR FINAL CONNECTION BY ELECTRICAL TRADES. INTERCONNECTIONS BETWEEN SECTIONS OF FABRICATED COUNTERS BY FSEC.

B. THE FSEC WILL PROVIDE RECEPTACLES IN FABRICATED EQUIPMENT AND WILL PREWIRE ELECTRICAL COMPONENTS IN COUNTER, AS REQUIRED, TO AN ELECTRIC CIRCUIT BREAKER PANEL IN THE COUNTER, FOR ONE FINAL POWER CONNECTION BY ELECTRICAL TRADES. 10 KAIC INTERRUPTING CAPACITY BREAKERS ARE PROVIDED, ADVISE RIPPE IF LARGER KAIC BREAKERS ARE REQUIRED. INTERCONNECTIONS BETWEEN SECTIONS OF FABRICATED COUNTERS BY FSEC.

C. WIRE THRU TIME DELAY RELAY, SOLENOID VALVE AND CONTROL PANEL TO DISPOSER.

D. ALL REFRIGERATION SYSTEMS ARE LOCATED APPROXIMATELY WHERE SHOWN ON PLAN UNLESS OTHERWISE NOTED. THE FOLLOWING ITEMS ARE NOT BY THE FSEC: ROOF CURBS/CONCRETE PADS; SLEEVED & SEALED PENETRATIONS IN ROOFS/FLOORS/CEILINGS/WALLS.

E. ELECTRICAL TRADES TO CONNECT POWER TO THE DEMAND DEFROST CONTROLLER LOCATED ON THE COIL AT REFRIGERATORS AND FREEZERS FOR DEFROST.

J. ELECTRICAL TRADES TO INTERWIRE FIRE PROTECTION SYSTEM WITH BUILDING ALARM SYSTEM AND TO MAKE-UP AIR FAN SHUT-OFF.

L. ELECTRICAL TRADES TO INTERWIRE FIRE PROTECTION SYSTEM TO POWER SHUT-OFF DEVICE, SUPPLIED BY ELECTRICAL TRADES, SO THAT POWER TO ALL ELECTRIC COOKING EQUIPMENT BELOW HOODS IS SHUT OFF UPON ACTIVATION OF THE FIRE PROTECTION SYSTEM.

M. PROVIDE COMPUTER GRADE SEPARATE SERVICE IF REQUIRED.

N. PROVIDE EXTRA JUNCTION BOX AND CONCEALED CONDUIT BETWEEN POS EQUIPMENT AND REMOTE PRINTER LOCATION FOR DATA LINES. COORDINATE FINAL TERMINATION POINT WITH OWNER.

S. ELECTRICAL TRADES TO INTERWIRE DISHMACHINE EXHAUST FAN W/VENT FAN CONTROL ON DISHMACHINE, SO FAN IS ACTIVATED WHEN DISHMACHINE IS OPERATIONAL AND SHUTS-OFF WHEN DISHMACHINE CEASES TO OPERATE.

T. FURNISH FLUSH-MOUNTED FLOOR OUTLET WIREMOLD MODEL #RFB4(120 V, 1 PHASE) OR #RFB11(208 V, 1 PHASE) FOR THIS EQUIPMENT (IF REQUIRED).

U. ELECTRICAL TRADES TO INTERWIRE ROOF-MOUNTED VENT FAN, FURNISHED BY MECHANICAL TRADES, WITH CONTROL ON RACK OVEN.

V. ELECTRICAL TRADES TO INTERWIRE TABLE LIMIT SWITCH (FURNISHED AND INSTALLED AT END OF CLEAN DISHTABLE BY FSEC) WITH CONTROL ON DISHMACHINE.

W. INTERCONNECT THIS EQUIPMENT WITH BUILDING EMERGENCY POWER.

X. THIS EQUIPMENT IS EXISTING. MECHANICAL/ELECTRICAL TRADES TO DISCONNECT, FSEC TO RELOCATE AND SET IN PLACE, FINAL RE-CONNECTION BY MECHANICAL/ELECTRICAL TRADES. MECHANICAL/ELECTRICAL TRADES TO COORDINATE UTILITY REQUIREMENTS WITH FSEC PRIOR TO ROUGH-IN.

ELECTRICAL LEGEND

DR	DUPLEX RECEPTACLE
SR	SINGLE RECEPTACLE
FR	FLOOR RECEPTACLE
S SW	SWITCH
V	VOLTS
AMP	AMPERES
PH	PHASE
W	WATTS
KW	KILOWATT
HP	HORSEPOWER
JB	JUNCTION BOX
	EMPTY JUNCTION BOX
+	DISTANCE ABOVE FINISHED FLOOR
DN+	BRING SERVICE DOWN FROM ABOVE CEILING TO A DISTANCE ABOVE FINISHED FLOOR
COMP	COMPRESSOR
	MOTOR
	SOLENOID
	DATA OUTLET
	VOICE OUTLET
AFF	ABOVE FINISHED FLOOR
CLG	CEILING
DFA	DOWN FROM ABOVE
ET	ELECTRICAL TRADES
ELEC	ELECTRICAL
FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
GC	GENERAL CONTRACTOR

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SEAL

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Minneapolis, MN 55343
952-933-0313 | www.RippeAssociates.com

VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT ELECTRICAL SCHEDULE

FOODSERVICE EQUIPMENT ELECTRICAL SCHEDULE - CULINARY LAB

ITEM #	DESCRIPTION		VOLTS	PHASE	AMPS	WATTS	HP	CONN. TYPE	RI HEIGHT	REMARKS
200	REACH-IN FREEZER, 2-SEC.		120 V	1	14.9 A		3/4	RECEPT.	86"	
201	REACH-IN REFRIGERATOR, 2-SEC.		120 V	1	8.2 A		5/8	RECEPT.	86"	
204	WASHER		120 V	1			.33	RECEPT.	18"	VFY. UTILITIES W/OWNER / 15 AMP MINIMUM FUSE REQUIRED
206	DRYER		120 V	1			.33	RECEPT.	18"	VFY. UTILITIES W/OWNER / 15 AMP MINIMUM FUSE REQUIRED
213	ICE MAKER W/BIN		120 V	1	6.0 A	720 W	.42	RECEPT.	18"	
216	REACH-IN FREEZER, 1-SEC.		120 V	1	9.4 A		1/2	RECEPT.	86"	
217	WORKCOUNTER W/SINKS		120 V	1				DIRECT	10"	NOTE A / STUB UP THRU CURB / (3) 120/1 20.0 A CKT TO SERVICE (3) CONV DRS
219	UNDERCOUNTER DISHMACHINE		120/208 V	1	30.5 A	6344 W		RECEPT.	18"	
222	DISPOSER		208 V	1	5.7 A		1	DIRECT	18"	NOTE C / SEE DETAIL
226	DEMONSTRATION COUNTER		120 V	1				DIRECT	10"	NOTE A / STUB UP THRU CURB / (4) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS AND ITEMS #228 & #235
227	EXHAUST HOOD (TYPE I)		120 V	1		400 W		DIRECT	108"	DFA / NOTES H & I / SEE DETAIL
227	EXHAUST HOOD USER INTERFACE	B							48"	SEE DETAIL
228	6-BURNER RANGE W/OVEN	A	120 V	1	1.5 A			RECEPT.	0"	NOTE L / SERVICED THRU #226
228	6-BURNER RANGE W/OVEN	B	120 V	1	1.5 A			RECEPT.	18"	NOTE L
230	DEMAND CONTROL VENTILATION SYSTEM	A	120 V	1	15.0 A			DIRECT		SEE DETAIL / NON-SHUNTED SOURCE / TO SERVE EXHAUST HOODS 242A, 242B, 242C, 242D, 242E & 242F
231	FIRE PROTECTION SYSTEM		120 V	1				DIRECT		NOTES J & L / AT CEILING / WIRING FOR CONTROLS / SEE DETAIL / TO SERVE #227
234	WORKCOUNTER		120 V	1				DIRECT	10"	NOTE A / STUB UP THRU CURB / (3) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS AND ITEM #235
235	MICROWAVE OVEN		120 V	1	13.0 A	1550 W		RECEPT.	0"	SERVICED THRU #226, #234 & #236
236	WORKCOUNTER - ADA		120 V	1				DIRECT	10"	NOTE A / STUB UP THRU CURB / (3) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS AND ITEM #235
239	WORKCOUNTER W/SINKS		120 V	1				DIRECT	10"	NOTE A / (2) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS
242	EXHAUST HOOD (TYPE I)	A	120 V	1		400 W		DIRECT	108"	DFA / SEE DETAIL
242	EXHAUST HOOD (TYPE I)	B	120 V	1		400 W		DIRECT	108"	DFA / SEE DETAIL
242	EXHAUST HOOD (TYPE I)	C	120 V	1		400 W		DIRECT	108"	DFA / SEE DETAIL
242	EXHAUST HOOD (TYPE I)	D	120 V	1		400 W		DIRECT	108"	DFA / SEE DETAIL
242	EXHAUST HOOD (TYPE I)	E	120 V	1		400 W		DIRECT	108"	DFA / SEE DETAIL
242	EXHAUST HOOD (TYPE I)	F	120 V	1		400 W		DIRECT	108"	DFA / SEE DETAIL
243	WORKCOUNTER W/SINKS		120 V	1				DIRECT	10"	NOTE A / (2) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS
246	FIRE PROTECTION SYSTEM		120 V	1				DIRECT		NOTES J & L / AT CEILING / WIRING FOR CONTROLS / SEE DETAIL / TO SERVE #242A, #242B & #242C
247	WORKCOUNTER - ADA		120 V	1				DIRECT	10"	NOTE A / (1) 120/1 20.0 A CKT TO SERVICE (1) CONV DRS
248	WORKCOUNTER W/SINKS - ADA		120 V	1				DIRECT	10"	NOTE A / (2) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS
251	FIRE PROTECTION SYSTEM		120 V	1				DIRECT		NOTES J & L / AT CEILING / WIRING FOR CONTROLS / SEE DETAIL / TO SERVE #242D, #242E & #242F
254	WORKCOUNTER W/SINKS		120 V	1				DIRECT	10"	NOTE A / (2) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS
257	WORKCOUNTER W/SINKS		120 V	1				DIRECT	10"	NOTE A / (2) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS
259	WORKCOUNTER		120 V	1				DIRECT	10"	NOTE A / (1) 120/1 20.0 A CKT TO SERVICE (1) CONV DRS
261	WORKCOUNTER W/SINKS		120 V	1				DIRECT	10"	NOTE A / (2) 120/1 20.0 A CKT TO SERVICE (2) CONV DRS

GENERAL NOTES - ELECTRICAL

NOTE: GENERAL NOTES REFER TO GENERAL CONDITIONS. ALL CONDITIONS MAY NOT EXIST ON THIS PROJECT.

1. THESE DRAWINGS ARE FOR USE BY THE PROJECT ENGINEERS IN PREPARING THEIR DRAWINGS. THESE DRAWINGS ARE INCIDENTAL TO OUR SERVICES AND MUST BE REVIEWED AND APPROVED BY A PROPERLY LICENSED DESIGN PROFESSIONAL BEFORE BEING USED FOR ANY OTHER PURPOSES. RIPPE ASSOCIATES IS NOT LICENSED AS A DESIGN PROFESSIONAL AND DOES NOT HOLD ITSELF OUT AS SUCH.
2. SERVICES SHOWN ON THIS PLAN ARE EQUIPMENT REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. LOCATIONS, SIZES AND HEIGHTS ABOVE FINISHED FLOOR ARE APPROXIMATELY AS REQUIRED BY EQUIPMENT TO BE FURNISHED. SINCE MULTIPLE SOURCES FOR THE EQUIPMENT MAY BE SPECIFIED, SLIGHT VARIATIONS IN UTILITY LOADS AND CONNECTION SIZES CAN OCCUR. DESIGN BUILDING UTILITY SYSTEM ACCORDINGLY AND ADD NOTES TO THE ELECTRICAL CONTRACT DOCUMENTS INDICATING SLIGHT VARIATIONS ARE TO BE INCLUDED IN ELECTRICAL TRADES WORK AT NO ADDITIONAL COST.
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B. THE FSEC WILL PROVIDE RECEPTACLES IN FABRICATED EQUIPMENT AND WILL PREWIRE ELECTRICAL COMPONENTS IN COUNTER, AS REQUIRED, TO AN ELECTRIC CIRCUIT BREAKER PANEL IN THE COUNTER, FOR ONE FINAL POWER CONNECTION BY ELECTRICAL TRADES. 10 KAIC INTERRUPTING CAPACITY BREAKERS ARE PROVIDED, ADVISE RIPPE IF LARGER KAIC BREAKERS ARE REQUIRED. INTERCONNECTIONS BETWEEN SECTIONS OF FABRICATED COUNTERS BY FSEC.

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M. PROVIDE COMPUTER GRADE SEPARATE SERVICE IF REQUIRED.

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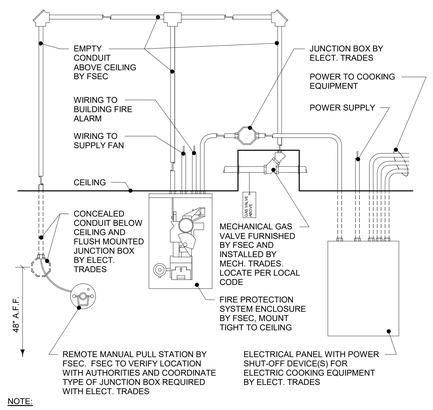
V. ELECTRICAL TRADES TO INTERWIRE TABLE LIMIT SWITCH (FURNISHED AND INSTALLED AT END OF CLEAN DISHTABLE BY FSEC) WITH CONTROL ON DISHMACHINE.

W. INTERCONNECT THIS EQUIPMENT WITH BUILDING EMERGENCY POWER.

X. THIS EQUIPMENT IS EXISTING. MECHANICAL/ELECTRICAL TRADES TO DISCONNECT, FSEC TO RELOCATE AND SET IN PLACE, FINAL RE-CONNECTION BY MECHANICAL/ELECTRICAL TRADES. MECHANICAL/ELECTRICAL TRADES TO COORDINATE UTILITY REQUIREMENTS WITH FSEC PRIOR TO ROUGH-IN.



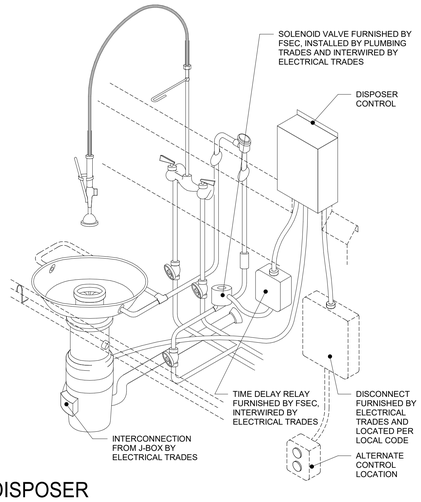
NOTE:

1. ELECTRICAL COMPONENTS AND INTERWIRING BY ELECTRICAL TRADES UNLESS NOTED OTHERWISE.
2. CONDUIT CONCEALED IN WALL WHEREVER POSSIBLE. EXPOSED CONDUIT TO BE CHROME-PLATED.
3. LOCATE GAS VALVE ABOVE CEILING PLANE WHEN ALLOWED BY CODE. COORDINATE WITH LOCAL FIRE MARSHAL

WET CHEMICAL FIRE PROTECTION SYSTEM

WIRING DIAGRAM - MECHANICAL GAS VALVE

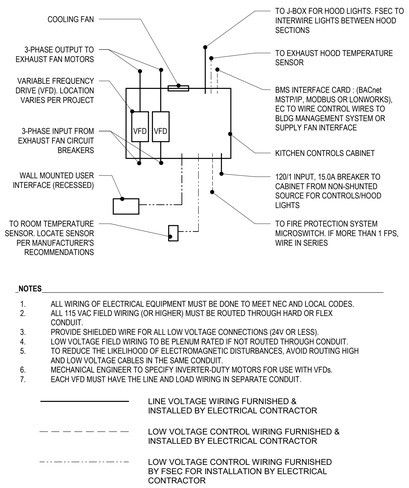
ROBERT RIPPE & ASSOCIATES, INC.



DISPOSER

WITH TIME DELAY RELAY

ROBERT RIPPE & ASSOCIATES, INC.



NOTES

1. ALL WIRING OF ELECTRICAL EQUIPMENT MUST BE DONE TO MEET NEC AND LOCAL CODES.
2. ALL 115 VAC FIELD WIRING (OR HIGHER) MUST BE ROUTED THROUGH HARD OR FLEX CONDUIT.
3. PROVIDE SHIELDED WIRE FOR ALL LOW VOLTAGE CONNECTIONS (24V OR LESS).
4. LOW VOLTAGE FIELD WIRING TO BE PLENUM RATED IF NOT ROUTED THROUGH CONDUIT.
5. TO REDUCE THE LIKELIHOOD OF ELECTROMAGNETIC DISTURBANCES, AVOID ROUTING HIGH AND LOW VOLTAGE CABLES IN THE SAME CONDUIT.
6. MECHANICAL ENGINEER TO SPECIFY INVERTER-DUTY MOTORS FOR USE WITH VFDs.
7. EACH VFD MUST HAVE THE LINE AND LOAD WIRING IN SEPARATE CONDUIT.

LINE VOLTAGE WIRING FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR

LOW VOLTAGE CONTROL WIRING FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR

LOW VOLTAGE CONTROL WIRING FURNISHED BY FSEC FOR INSTALLATION BY ELECTRICAL CONTRACTOR

DEMAND CONTROL SYSTEM ELECTRICAL WIRING DETAIL

RIPPE ASSOCIATES, INC.

NOTE: IF MOTOR STARTERS BY OTHERS, ELECT TRADES TO PII LOW VOLTAGE WIRING FROM CONTROL PANEL TO MOTOR STARTERS AND LINE VOLTAGE WIRING FROM BREAKER PANEL THRU MOTOR STARTERS TO FAN MOTOR

LINE VOLTAGE WIRING FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR

LOW VOLTAGE CONTROL WIRING FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR

LOW VOLTAGE CONTROL WIRING FURNISHED BY FSEC FOR INSTALLATION BY ELECTRICAL CONTRACTOR

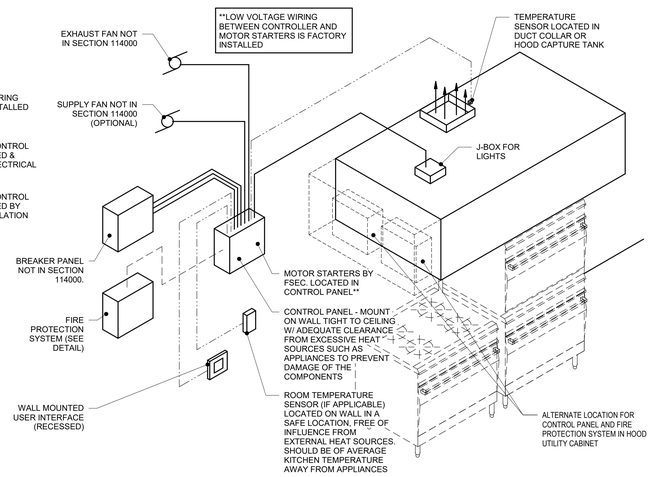
SEQUENCE OF OPERATION:

HOOD FAN SWITCH OFF (AUTO):
WHEN ENOUGH HEAT IS PRESENT, SENSOR WILL TRIGGER OFF DELAY TIMER WHICH WILL ENGAGE EXHAUST FAN AND REMAIN ON FOR 15 MINUTES AFTER HEAT IS REMOVED.

HOOD FAN SWITCH ON (MANUAL):
TEMP SENSOR IS BY-PASSED AND EXHAUST FAN IS TURNED ON/OFF. IF HEAT ENGAGES SENSOR, THE FAN SWITCH WILL NOT TURN OFF THE FAN.

TEMP SENSOR OPERATION:

IF EXHAUST DUCT SENSOR DETECTS A TEMPERATURE RISE OF 10 DEGREES (ADJUSTABLE) OVER THE KITCHEN SPACE TEMPERATURE, THE FANS WILL AUTOMATICALLY TURN ON



EXHAUST HOOD WIRING DIAGRAM - CONSTANT VOLUME

RIPPE ASSOCIATES, INC.

ELECTRICAL LEGEND

	DR	DUPLEX RECEPTACLE
	SR	SINGLE RECEPTACLE
	FR	FLOOR RECEPTACLE
S	SW	SWITCH
	V	VOLTS
	AMP	AMPERES
	PH	PHASE
	W	WATTS
	KW	KILOWATT
	HP	HORSEPOWER
	JB	JUNCTION BOX
		EMPTY JUNCTION BOX
	+	DISTANCE ABOVE FINISHED FLOOR
	DN+	BRING SERVICE DOWN FROM ABOVE CEILING TO A DISTANCE ABOVE FINISHED FLOOR
	COMP	COMPRESSOR
		MOTOR
		SOLENOID
		DATA OUTLET
		VOICE OUTLET
	AFF	ABOVE FINISHED FLOOR
	CLG	CEILING
	DFA	DOWN FROM ABOVE
	ET	ELECTRICAL TRADES
	ELEC	ELECTRICAL
	FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
	GC	GENERAL CONTRACTOR

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952-933-3313 | www.RippeAssociates.com

VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
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DATE: 2021-11-01
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FIELD BOOK:

FOODSERVICE EQUIPMENT ELECTRICAL SCEDULE AND DETAILS

FSE101

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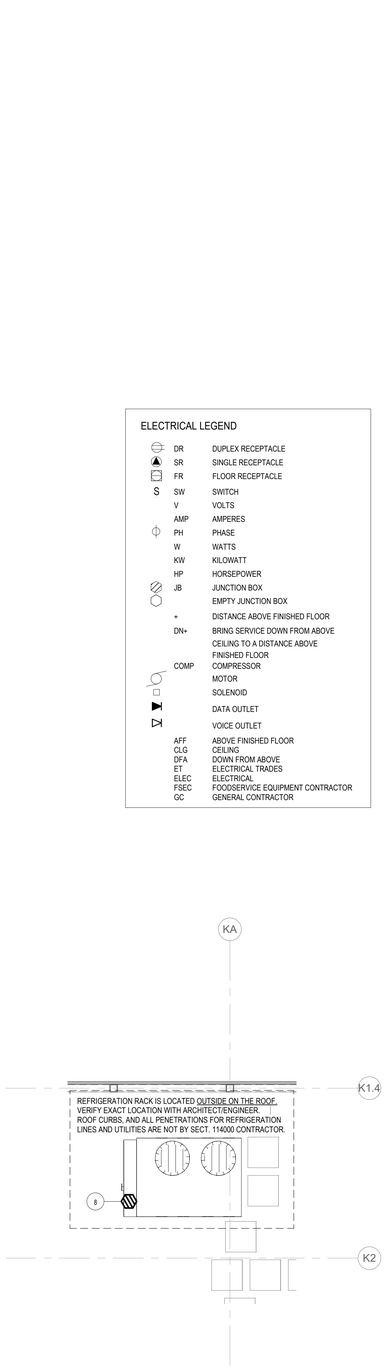
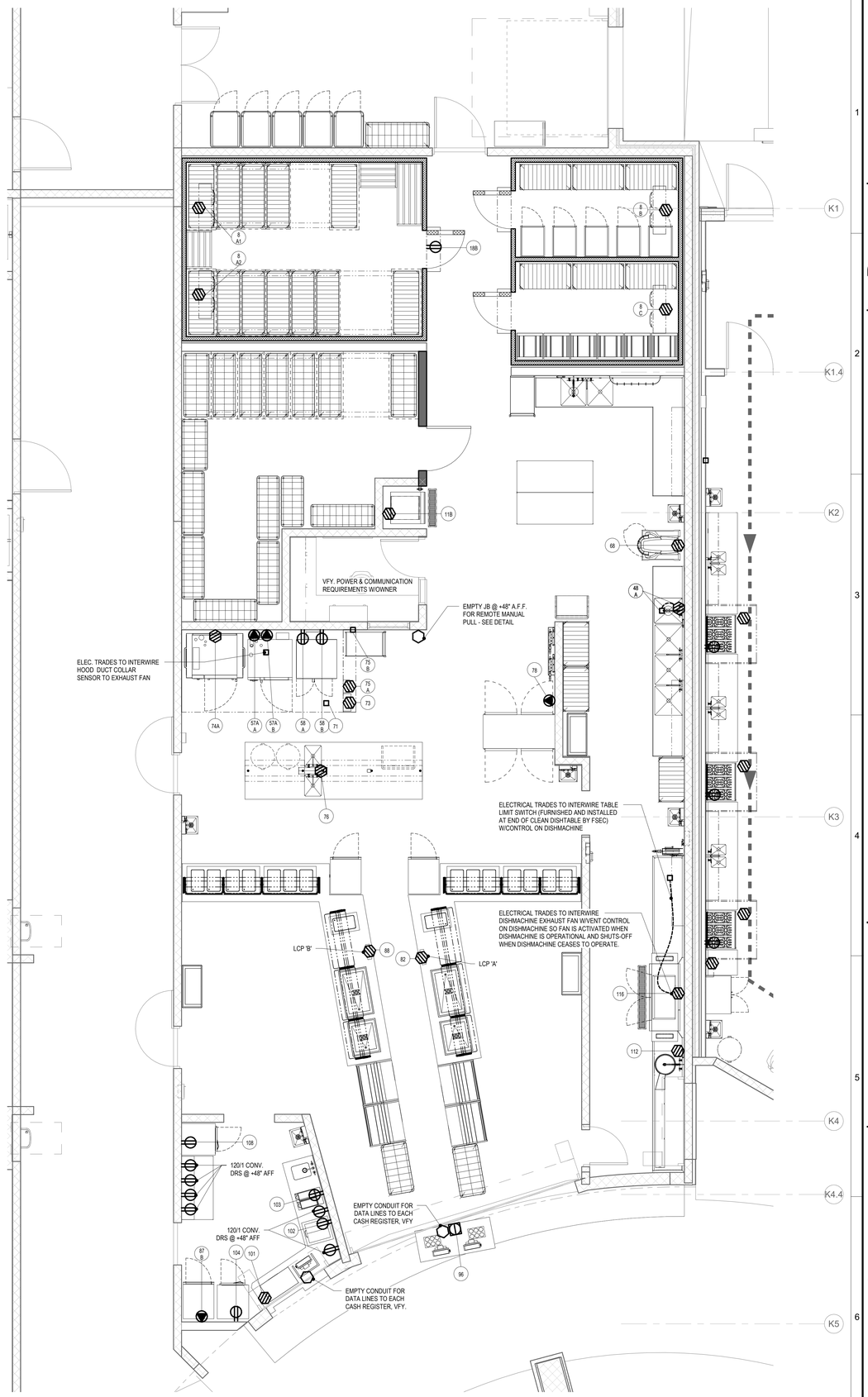
ELECTRICAL LEGEND

⊖	DR	DUPLEX RECEPTACLE
▲	SR	SINGLE RECEPTACLE
▣	FR	FLOOR RECEPTACLE
S	SW	SWITCH
	V	VOLTS
	AMP	AMPERES
⌽	PH	PHASE
	W	WATTS
	KW	KILOWATT
	HP	HORSEPOWER
▨	JB	JUNCTION BOX
⬡		EMPTY JUNCTION BOX
	+	DISTANCE ABOVE FINISHED FLOOR
	DN+	BRING SERVICE DOWN FROM ABOVE CEILING TO A DISTANCE ABOVE FINISHED FLOOR
	COMP	COMPRESSOR
◯		MOTOR
□		SOLENOID
▶		DATA OUTLET
▽		VOICE OUTLET
	AFF	ABOVE FINISHED FLOOR
	CLG	CEILING
	DFA	DOWN FROM ABOVE
	ET	ELECTRICAL TRADES
	ELEC	ELECTRICAL
	FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
	GC	GENERAL CONTRACTOR



2 FOODSERVICE ELECTRICAL ROOF PLAN - REFRIGERATION
1/4" = 1'-0"



1 FOODSERVICE ELECTRICAL PLAN - KITCHEN & SERVERY
1/4" = 1'-0"

SHIVEHATTERY
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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT ELECTRICAL PLAN - KITCHEN / SERVERY / ROOF

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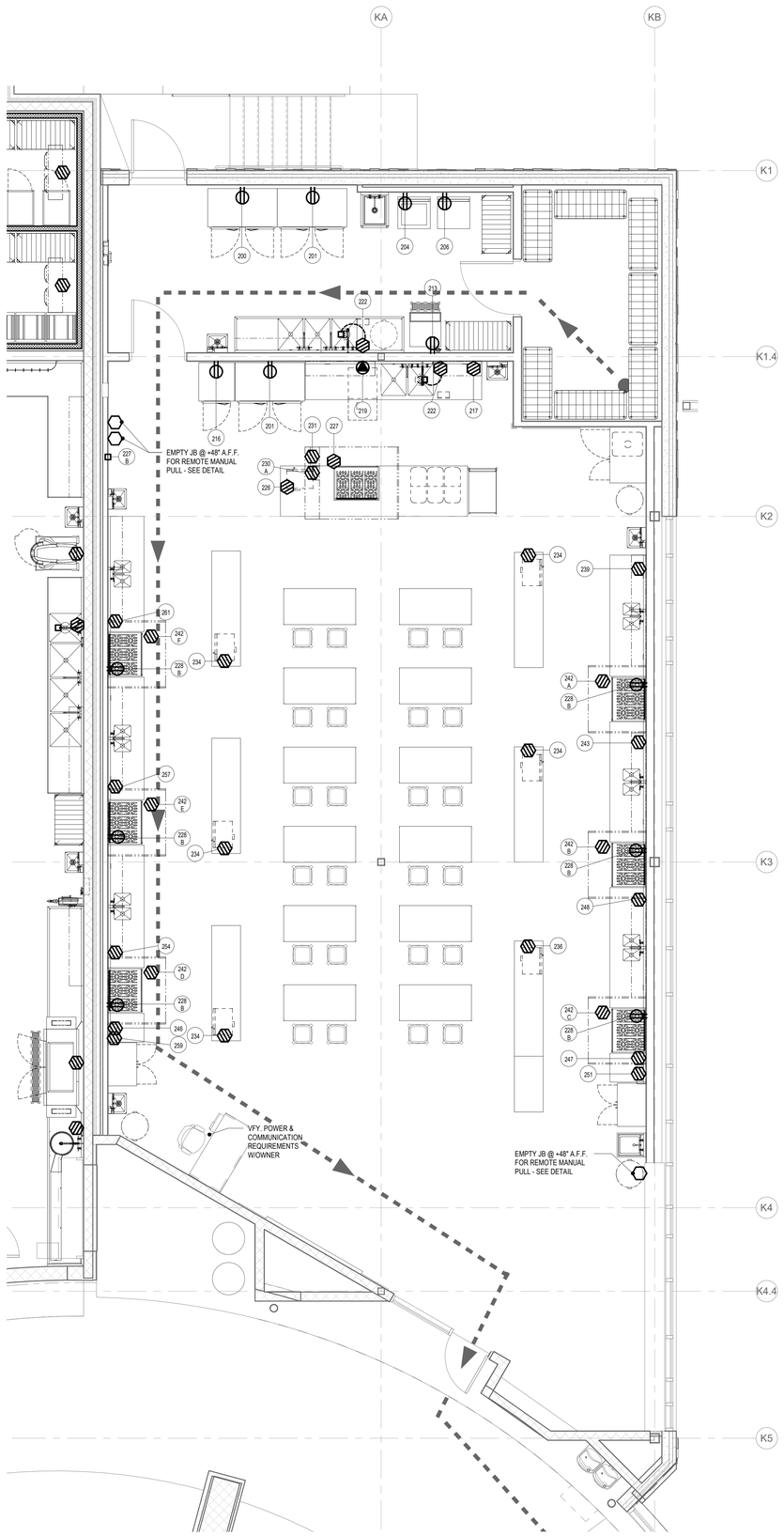

1 FOODSERVICE ELECTRICAL PLAN - CULINARY LAB
1/4" = 1'-0"

ELECTRICAL LEGEND

	DR	DUPLEX RECEPTACLE
	SR	SINGLE RECEPTACLE
	FR	FLOOR RECEPTACLE
S	SW	SWITCH
	V	VOLTS
	AMP	AMPERES
	PH	PHASE
	W	WATTS
	KW	KILOWATT
	HP	HORSEPOWER
	JB	JUNCTION BOX
		EMPTY JUNCTION BOX
	*	DISTANCE ABOVE FINISHED FLOOR
	DN*	BRING SERVICE DOWN FROM ABOVE
		CEILING TO A DISTANCE ABOVE FINISHED FLOOR
	COMP	COMPRESSOR
		MOTOR
		SOLENOID
		DATA OUTLET
		VOICE OUTLET

AFF	ABOVE FINISHED FLOOR
CLG	CEILING
DFA	DOWN FROM ABOVE
ET	ELECTRICAL TRADES
ELEC	ELECTRICAL
FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
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FOODSERVICE EQUIPMENT ELECTRICAL PLAN - CULINARY LAB

FSE103

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FOODSERVICE EQUIPMENT MECHANICAL SCHEDULE - KITCHEN/SERVERY/ROOF

ITEM #	DESCRIPTION		DIRECT WASTE SIZE	DIRECT WASTE HEIGHT	INDIRECT WASTE SIZE	COLD WATER SIZE	COLD WATER HEIGHT	HOT WATER SIZE	HOT WATER HEIGHT	GAS SIZE	GAS HEIGHT	GAS INPUT MBTU/HR	W.C.	REMARKS
						3/4"	36"							
8	RACKED REFRIGERATION SYTEM													NOTE M
8	FREEZER SYSTEM COIL	A1			1"									NOTE G
8	FREEZER SYSTEM COIL	A2			1"									NOTE G
8	REFRIGERATION SYSTEM COIL	B			1"									NOTE G
8	REFRIGERATION SYSTEM COIL	C			1"									NOTE G
11A	ICE BIN				3/4"									
11B	ICE MAKER				3/4"	1/4"	48"							NOTES C, D & X / WATER FILTER FURNISHED BY FSEC / INSTALLED BY MECH TRADES
13	FLOOR TROUGH		4"	-4"										FURNISHED BY FSEC / INSTALLED BY MECH TRADES
21	VEGETABLE PREP COUNTER W/SINKS													EXISTING, NO CHANGES / FSEC TO REMOVE FOR FLOOR REPLACEMENT, THEN RESET IN SAME PLACE FOR FINAL UTILITY RECONNECTIONS BY MECH. TRADES
22	DISPOSER W/SPRAY RINSE	A												EXISTING, NO CHANGES / FSEC TO REMOVE FOR FLOOR REPLACEMENT, THEN RESET IN SAME PLACE FOR FINAL UTILITY RECONNECTIONS BY MECH. TRADES
22	SPRAY RINSE	B												EXISTING, NO CHANGES / FSEC TO REMOVE FOR FLOOR REPLACEMENT, THEN RESET IN SAME PLACE FOR FINAL UTILITY RECONNECTIONS BY MECH. TRADES
25	HAND SINK		1 1/2"	22"		1/2"	24"	1/2"	24"					
47	POT & PAN SINK				2"	3/4"	18"	3/4"	18"					NOTE X / (3) INDIRECT WASTE CONNECTIONS / (2) CW & HW CONNECTIONS
48	DISPOSER W/SPRAY RINSE	A	2"	10"										NOTES A & B / SEE DETAIL
48	SPRAY RINSE	B				3/4"	20"	1/2"	20"					NOTE X / BRANCH 1/2" CW TO #48 A
57A	COMBI OVEN, 2-SEC.	A			2"	3/4"	24"			3/4"	30"	106	6.5"	NOTES C, D, E, H, I, J, V & W / CW FROM FILTER
57A		B			2"	3/4"	24"			3/4"	30"	106	6.5"	NOTES C, D, E, H, I, J, V & W / CW FROM FILTER
57B	WATER FILTRATION SYSTEM					3/4"	96"							FILTERED CW TO #57A
58	CONVECTION OVEN, 2-SEC.	A								3/4"	30"	110	3.5"	NOTE X / NOTES I, J, V & W
73	FIRE PROTECTION SYSTEM													NOTE J / SEE DETAIL / TO SERVE #71
74A	ROLL-IN COMBI OVEN				2"	3/4"	24"			1"	30"	304	6.5"	NOTES C, D, H, I, J, V & W / CW FROM FILTER #74B
74B	WATER FILTRATION SYSTEM					3/4"	96"							FILTERED CW TO #74A
76	WORKCOUNTER W/SINKS & OVERSHELF				2"	1/2"	10"	1/2"	10"					(2) INDIRECT WASTE CONNECTIONS / (2) CW & HW CONNECTIONS
84	HOT/COLD PAN, 4-WELL				3/4"									NOTE G
85	HOT/COLD PAN, 1-WELL				3/4"									NOTE G
86	HOT/COLD PAN, 3-WELL				3/4"									NOTE G
91	DROP-IN COLD PAN, 2-WELL				3/4"									NOTE G
92	DROP-IN COLD PAN, 3-WELL				3/4"									NOTE G
100	UNDERMOUNT UTILITY SINK				2"									
101	A LA CARTE COUNTER					1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION
112	WASTE COLLECTOR				2"	1/2"	20"	1/2"	20"					PIPE 1-1/2 RECIRCULATING OUTLET FROM COLLECTOR RESERVOIR THROUGH VALVE TO TROUGH GUSHER HEADS, REDUCING PIPE SIZE TO 3/4" AT INLETS.
113	SPRAY RINSE					1/2"	20"	1/2"	20"					
116	DISHMACHINE W/BOOSTER HEATER				2"	1/2"	12"	1/2"	12"					NOTES F & Q / 110° MIN INCOMING HW / 80°F MAX INCOMING CW
117	FLOOR TROUGH		4"	-4"										FURNISHED BY FSEC / INSTALLED BY MECH TRADES
121	HOSE REEL					1/2"	54"	1/2"	54"					NOTE D / SEE DETAIL
122	EYE/FACE WASH STATION		2"	24"		1/2"	29"	1/2"	29"					MIXING VALVE FURNISHED BY FSEC / INSTALLED BY MECH TRADES

FOODSERVICE EQUIPMENT MECHANICAL SCHEDULE - CULINARY LAB

ITEM #	DESCRIPTION		DIRECT WASTE SIZE	DIRECT WASTE HEIGHT	INDIRECT WASTE SIZE	COLD WATER SIZE	COLD WATER HEIGHT	HOT WATER SIZE	HOT WATER HEIGHT	GAS SIZE	GAS HEIGHT	GAS INPUT MBTU/HR	W.C.	REMARKS
202	EYE/FACE WASH STATION		2"	24"		1/2"	29"	1/2"	29"					MIXING VALVE FURNISHED BY FSEC / INSTALLED BY MECH TRADES
203	LAUNDRY SINK				2"	1/2"	24"	1/2"	24"					
204	WASHER				1"	3/4"	36"	3/4"	36"					VFY. UTILITIES W/OWNER / DRAIN TO STANDPIPE IN WALL
206	DRYER									3/8"	12"	24		VFY. UTILITIES W/OWNER
207	HAND SINK		1 1/2"	22"		1/2"	24"	1/2"	24"					
208	POT & PAN SINK				2"	3/4"	18"	3/4"	18"					(2) INDIRECT WASTE CONNECTIONS / (2) CW & HW CONNECTIONS
210	FLOOR TROUGH		4"	-4"										FURNISHED BY FSEC / INSTALLED BY MECH TRADES
213	ICE MAKER W/BIN				1/2"	3/8"	24"							NOTES C & D / CW FROM FILTER
217	WORKCOUNTER W/SINKS				2"	1/2"	18"	1/2"	18"					
219	UNDERCOUNTER DISHMACHINE				5/8"	3/4"	18"							NOTES F, Q & Y / 55-80° F CW
222	DISPOSER		1 1/2"	10"										NOTES A & B / SEE DETAIL / TEE-OFF 1/2" CW FROM #223
223	SPRAY RINSE					3/4"	20"	1/2"	20"					BRANCH 1/2" CW TO ITEM #222
228	6-BURNER RANGE W/OVEN	A								3/4"	30"	227	5.0"	NOTES I, J, V & W
228	6-BURNER RANGE W/OVEN	B								3/4"	30"	227	5.0"	NOTES I, J, V & W
231	FIRE PROTECTION SYSTEM													NOTE J / SEE DETAIL / TO SERVE ITEM #227
233	MOP CABINET		4"	4"		1/2"	54"	1/2"	54"					
239	WORKCOUNTER W/SINKS				2"	1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION / (1) INDIRECT WASTE CONNECTION
240	HAND SINK - ADA		1 1/2"	22"		1/2"	24"	1/2"	24"					
243	WORKCOUNTER W/SINKS				2"	1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION / (1) INDIRECT WASTE CONNECTION
246	FIRE PROTECTION SYSTEM													NOTE J / SEE DETAIL / TO SERVE ITEM #242D, 242E & 242F
248	WORKCOUNTER W/SINKS - ADA				2"	1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION / (1) INDIRECT WASTE CONNECTION
251	FIRE PROTECTION SYSTEM													NOTE J / SEE DETAIL / TO SERVE ITEM #242A, 242B & 242C
254	WORKCOUNTER W/SINKS				2"	1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION / (1) INDIRECT WASTE CONNECTION
257	WORKCOUNTER W/SINKS				2"	1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION / (1) INDIRECT WASTE CONNECTION
261	WORKCOUNTER W/SINKS				2"	1/2"	18"	1/2"	18"					(1) HW & CW CONNECTION / (1) INDIRECT WASTE CONNECTION

FOODSERVICE EQUIPMENT EXHAUST SCHEDULE

ITEM #	DESCRIPTION		VOLUME	VENT DEPTH	VENT WIDTH	Exhaust Vent Diameter	STATIC PRESSURE	RI HEIGHT	FAN #	FIRE PROTECTION ITEM #	DVC ITEM #	REMARKS
71	EXHAUST HOOD	L1	1300 CFM	10"	12"		0.511	118"	101	73		2600 CFM SPLIT BETWEEN TWO DUCT COLLARS
71	EXHAUST HOOD	R1	1300 CFM	10"	12"		0.511	118"	101	73		2600 CFM SPLIT BETWEEN TWO DUCT COLLARS
114	EXHAUST DUCT RISER	A	200 CFM	16"	4"		0.250	108"	102	N/A		LOAD END
114	EXHAUST DUCT RISER	B	400 CFM	16"	4"		0.250	108"	102	N/A		UNLOAD END
206	DRYER		230 CFM			4"		4"	N/A	N/A		
227	EXHAUST HOOD		2200 CFM	10"	21"		0.495	118"	106	231		
242	EXHAUST HOOD	A	788 CFM	8"	9"		0.500	118"	103	251		
242	EXHAUST HOOD	B	788 CFM	8"	9"		0.500	118"	104	251		
242	EXHAUST HOOD	C	788 CFM	8"	9"		0.500	118"	105	251		
242	EXHAUST HOOD	D	788 CFM	8"	9"		0.500	118"	107	246		
242	EXHAUST HOOD	E	788 CFM	8"	9"		0.500	118"	108	246		
242	EXHAUST HOOD	F	788 CFM	8"	9"		0.500	118"	109	246		

FOODSERVICE EQUIPMENT DISHMACHINE SCHEDULE

ITEM #	DESCRIPTION	GPH	APPROX. HOUR	LATENT HEAT	SENSIBLE HEAT
116	DISHMACHINE W/BOOSTER HEATER	132	6	51900	22200
219	UNDERCOUNTER DISHMACHINE	8.1	6	1100	2000

MECHANICAL LEGEND

●	CW	COLD WATER
○	HW	HOT WATER
●	W	DIRECT WASTE
⊙	AGW	AIR GAP WASTE
○	IW	INDIRECT WASTE
▤ ⊠	FD	FLOOR DRAIN
▤	FS	FLOOR SINK
▤	FSH	FLOOR SINK w/HALF GRATE
⊠	TTFD	TELL-TALE FLOOR DRAIN
◕	S	STEAM
⊗	CR	CONDENSATE RETURN
◑	G	GAS
◎	CWR	COOLING TOWER / CHILLED WATER SUPPLY/RETURN
Ⓐ		COMPRESSED AIR
◆		CO2
▨		EXHAUST
⊠		SUPPLY
	AFF	ABOVE FINISHED FLOOR
	CLG	CEILING
	DFA	DOWN FROM ABOVE
	FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
	GC	GENERAL CONTRACTOR
	OOW	OUT OF WALL
	MT	MECHANICAL TRADES
	PLBG	PLUMBING
	WC	WATER COLUMN

GENERAL NOTES - MECHANICAL

NOTE: GENERAL NOTES REFER TO GENERAL CONDITIONS. ALL CONDITIONS MAY NOT EXIST ON THIS PROJECT.

1. THESE DRAWINGS ARE FOR USE BY THE PROJECT ENGINEERS IN PREPARING THEIR DRAWINGS. THESE DRAWINGS ARE INCIDENTAL TO OUR SERVICES AND MUST BE REVIEWED AND APPROVED BY A PROPERLY LICENSED DESIGN PROFESSIONAL BEFORE BEING USED FOR ANY OTHER PURPOSES. RIPPE ASSOCIATES IS NOT LICENSED AS A DESIGN PROFESSIONAL AND DOES NOT HOLD ITSELF OUT AS SUCH.
2. SERVICES SHOWN ON THIS PLAN ARE EQUIPMENT REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. LOCATIONS, SIZES AND HEIGHTS ABOVE FINISHED FLOOR ARE APPROXIMATELY AS REQUIRED BY EQUIPMENT TO BE FURNISHED. SINCE MULTIPLE SOURCES FOR THE EQUIPMENT MAY BE SPECIFIED, SLIGHT VARIATIONS IN UTILITY LOADS AND CONNECTION SIZES CAN OCCUR. DESIGN BUILDING UTILITY SYSTEM ACCORDINGLY AND ADD NOTES TO THE MECHANICAL CONTRACT DOCUMENTS INDICATING SLIGHT VARIATIONS ARE TO BE INCLUDED IN THE MECHANICAL TRADES WORK AT NO ADDITIONAL COST.
3. THESE DRAWINGS ARE NOT TO BE USED TO ROUGH-IN AND/OR LOCATION OF SLEEVES, SINCE REQUIRED ALLOWANCES MUST BE MADE FOR MULTIPLE EQUIPMENT SOURCES AND FOR VALVES, TRAPS, FITTINGS, DISCONNECTS, ETC. WHICH WILL BE FURNISHED UNDER MECHANICAL TRADES. FSEC IS RESPONSIBLE FOR PREPARING DIMENSIONED ROUGH-IN AND SLEEVE LOCATION PLAN PER SPECIFICATIONS TO ACCOMMODATE THE EXACT EQUIPMENT BEING PROVIDED.
4. MECHANICAL TRADES TO PROVIDE ALL NECESSARY SHUT-OFF VALVES, PRESSURE REGULATORS, INDIVIDUAL EQUIPMENT SUPPLY STOPS, ETC. REQUIRED UPSTREAM OF THE FINAL SUPPLY CONNECTION(S) TO FOODSERVICE EQUIPMENT UNLESS NOTED OTHERWISE.
5. ALL INDIRECT WASTES FOR FOODSERVICE EQUIPMENT WILL BE EXTENDED TO FLOOR DRAINS BY MECHANICAL TRADES, EXCEPT FOR THE WALK-IN REFRIGERATOR/FREEZER BLOWER COIL DRAINLINES AND DRAINLINES WITHIN THE CAFETERIA SERVING COUNTERS WHICH WILL BE EXTENDED TO FLOOR DRAINS BY THE FSEC.
6. THE FSEC IS RESPONSIBLE FOR SETTING EQUIPMENT IN PLACE. FINAL CONNECTIONS AND INTERCONNECTIONS FOR THIS EQUIPMENT ARE THE RESPONSIBILITY OF THE MECHANICAL TRADES.
7. GENERAL CONTRACTOR TO PROVIDE HOLES, SLEEVES THROUGH CEILING, ROOFS, AND WALLS FOR SODA AND REFRIGERATION LINES, AND SEAL THEM IN ACCORDANCE WITH LOCAL FIRE AND BUILDING CODES AND IN ACCORDANCE WITH SIZES SPECIFIED. GENERAL CONTRACTOR TO PROVIDE ALL DUCT FIRE SEPARATIONS, ENCLOSURES, WRAPPINGS, ETC., AS MAY BE REQUIRED BY LOCAL BUILDING AND FIRE CODES. HOLES IN FOODSERVICE EQUIPMENT FOR MECHANICAL SERVICES PROVIDED BY FSEC.
8. SINK FAUCETS FURNISHED LOOSE BY FSEC FOR INSTALLATION BY MECHANICAL TRADES. SINK ROTARY DRAIN & OVERFLOW FURNISHED AND INSTALLED BY FSEC, TAILPIECE, P-TRAP, ESCUTCHEON PLATES AND DRAIN CONNECTION FURNISHED AND INSTALLED BY MECHANICAL TRADES EXCEPT FOR TAILPIECE AND P-TRAP FOR WALL MOUNTED HANDSINKS WHICH ARE PROVIDED BY FSEC AND INSTALLED BY MECHANICAL TRADES.
9. HEALTH CODES REQUIRE THAT ALL PLUMBING BE ENCLOSED IN WALLS OR FLOOR AND THAT EXPOSED PIPING RUNS BE AS SHORT AS POSSIBLE. GAS PIPING TO BE SLEEVED AND VENTED PER CODE SO IT IS CONCEALED WITHIN THE WALL. EXPOSED HORIZONTAL PIPING MUST BE 6" ABOVE THE FLOOR AND AT LEAST 1" OFF THE WALL. ANY EXPOSED UNINSULATED STEAM PIPING/FITTINGS AND HAND SINK PIPING (BOTH DRAIN AND SUPPLY LINES) ARE TO BE CHROME PLATED.
10. SIZE EXHAUST AND SUPPLY FAN CAPACITY FOR 125% OF AIR VOLUMES INDICATED. THE CFM LISTED IN THE SCHEDULE IS THE DESIGN MINIMUM AND THE TEST & BALANCE REPORT MUST BE EQUAL TO OR GREATER THAN THE LISTED CFM.
11. ALL EXHAUST HOODS SHOWN OVER COOKING EQUIPMENT, INCLUDING INTEGRAL HOODS SERVING RACK OVENS, ARE TYPE I HOODS. PROVIDE APPROPRIATE FIRE-RATED HOOD/DUCT ENCLOSURE ABOVE CEILING. VERIFY WITH LOCAL CODE AUTHORITIES WHETHER FIRE-RATED ENCLOSURE IS REQUIRED AT PORTION OF EXHAUST HOOD THAT EXTENDS ABOVE THE CEILING. IF ENCLOSURE IS NEEDED, ADVISE CONSULTANT AS TO FINAL ENCLOSURE DETAIL AT HOOD.
12. MOP SINK IN JANITOR'S CLOSET SHOULD BE FLOOR MOUNTED TYPE.
13. MECHANICAL TRADES TO PROVIDE GAS PRESSURE REGULATOR TO REDUCE NATURAL GAS PRESSURE TO 10" W.C. (PROPANE TO 15" W.C.); GAS PRESSURE REGULATOR FURNISHED WITH EQUIPMENT WILL REDUCE PRESSURE FROM 10" W.C. (OR 15" W.C.) TO REQUIRED PRESSURE.
14. ALL HOSE BIBBS BY MECHANICAL TRADES TO HAVE HOT WATER AND COLD WATER MIXING VALVE.
15. ENGINEERS TO VERIFY WITH LOCAL CODE AUTHORITIES IF USE OF A GREASE INTERCEPTOR IS REQUIRED. IF REQUIRED RUN DRAINLINES THRU GREASE INTERCEPTOR AS REQUIRED BY CODE. CENTRAL GREASE TRAP TO BE LOCATED OUTSIDE OF FOODSERVICE AREA. POINT OF USE GREASE TRAP TO BE FLUSH W/FLOOR & LOCATION TO BE COORDINATED WITH FOODSERVICE CONSULTANT.
16. BENEATH ALL EXHAUST HOODS, INSTALL ALL EXPOSED PIPING AS CLOSE TO WALL AS POSSIBLE, USING 90 DEGREE ELBOWS AS NEEDED SO COOKING EQUIPMENT MAY BE PUSHED BACK FROM FRONT EDGE OF HOOD FOR PROPER CAPTURE OF THERMAL PLUME.
17. TO MINIMIZE CROSS DRAFTS NEAR ALL HOODS, 2 X 2 PERFORATED SUPPLY AIR DIFFUSERS ARE RECOMMENDED FOR INSTALLATION APPROXIMATELY 3'-0" FROM HOOD PERIMETER. IF FOUR-WAY DIFFUSERS ARE USED, INSTALL A MINIMUM OF 15'-0" AWAY FROM HOOD PERIMETER. IN EITHER CASE, LIMIT SUPPLY DISCHARGE AIR VELOCITY TO 150 FEET PER MINUTE.
18. FOODSERVICE EQUIPMENT WATER PRESSURE REQUIREMENTS, UNLESS NOTED OTHERWISE, IS 40-70 PSI. MECHANICAL TRADES TO PROVIDE PRV'S AS REQUIRED TO ACHIEVE PRESSURE AS NOTED.
19. OUR SCHEDULE INDICATES WHICH EXHAUST HOODS SHOULD BE ON SEPARATE EXHAUST FAN. SINCE EACH SEPARATE EXHAUST FAN MAY REQUIRE A SEPARATE WET CHEMICAL FIRE PROTECTION SYSTEM, ADVISE CONSULTANT IF CHANGES TO OUR RECOMMENDATIONS ARE REQUIRED.
20. RECOMMENDED HOT WATER TEMPERATURES FOR SINKS SHOULD BE AS FOLLOWS: POT & PAN SINKS SET AT 120 DEGREE F MAXIMUM, HAND SINKS SET AT 110 DEGREE F MAXIMUM AND ALL OTHER SINKS SET AT 110-120 DEGREE F MAXIMUM. HOT WATER TEMPERATURES MUST CONFORM TO CODE REQUIREMENTS.
21. TO MAXIMIZE EXHAUST HOOD CAPTURE & PROPER AIR VOLUME BALANCING, WE DO NOT RECOMMEND HAVING MORE THAN TWO HOODS OR THREE DUCT COLLARS ON ONE FAN W/OUT THE USE OF A UL LISTED BALANCING DAMPER/BAFFLE AT EACH DUCT COLLAR. THE LISTED DAMPER REQUIRES AT LEAST 8" OF ADDITIONAL VERTICAL CLEARANCE & APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION. PLEASE ADVISE CONSULTANT IF THE DAMPER NEEDS TO BE SPECIFIED.
22. UTILITY CONNECTIONS SHOWN ARE THOSE REQUIRED TO SERVICE FOOD SERVICE EQUIPMENT ONLY. MECHANICAL TRADES SHOULD VERIFY WITH OWNER WHETHER ADDITIONAL UTILITIES ARE REQUIRED FOR EXISTING, FUTURE OR VENDOR FURNISHED NON-FOODSERVICE EQUIPMENT LOCATED WITHIN THE AREA SHOWN ON THIS PLAN.
23. FLOOR SINKS IN FOODSERVICE AREAS TO BE ACID RESISTANT PORCELEIN ENAMEL (ARE) COATED CAST IRON WITH NICKEL BRONZE GRATE REMOVABLE WITHOUT TOOLS. BASKET STRAINER TO BE REMOVABLE IN OPENING LESS THAN 6" IN HEIGHT.

SCHEDULE NOTES - MECHANICAL

NOTE: SCHEDULE NOTES PERTAIN TO INDIVIDUAL ITEMS AS INDICATED IN THE MECHANICAL SPOT CONNECTION SCHEDULE.

A. MECHANICAL TRADES TO INSTALL BACKFLOW PREVENTION DEVICE SUPPLIED BY FSEC.

B. BRANCH CW FROM SPRAY RINSE OR FAUCET THRU SOLENOID VALVE AND VACUUM BREAKER, CONNECT TO DISPOSER THROAT, BOWL OR DISPOSER TROUGH AS SHOWN. SEE DETAIL.

C. THE FSEC WILL FURNISH WATER FILTER FOR THIS ITEM, TO BE INSTALLED BY MECHANICAL TRADES. BEVERAGE EQUIPMENT AND ICE MAKERS CANNOT BE CONNECTED TO SOFTENED WATER.

D. MECHANICAL TRADES TO PROVIDE A CODE APPROVED BACKFLOW PREVENTION DEVICE FOR THIS ITEM.

F. IF WATER EXCEEDS 3 GRAINS OF HARDNESS, THE DISHMACHINE MANUFACTURER RECOMMENDS SOFTENED WATER BE PROVIDED TO THE DISHMACHINE AND BOOSTER HEATER. SEE FOODSERVICE EQUIPMENT DISHMACHINE SCHEDULE FOR THE APPROXIMATE HOURS OF OPERATION AND AMOUNT OF WATER USED PER HOUR.

G. INDIRECT WASTE FOR THIS ITEM EXTENDED TO FLOOR DRAIN/SINK BY FSEC.

H. THIS PIECE OF EQUIPMENT REQUIRES DRAIN PIPING TO WITHSTAND WATER TEMPERATURES OF 140 DEGREES AND ABOVE.

I. THE FSEC WILL PROVIDE A QUICK-DISCONNECT FLEXIBLE HOSE WITH THIS PIECE OF EQUIPMENT FOR INSTALLATION BY MECHANICAL TRADES. SEE DETAIL.

J. THE FSEC WILL PROVIDE A MECHANICALLY OPERATED GAS SHUT-OFF VALVE FOR INSTALLATION BY MECHANICAL TRADES. FSEC TO INTERCONNECT TO FIRE PROTECTION SYSTEM FOR FUEL SHUT-OFF TO COOKING EQUIPMENT BENEATH EXHAUST HOODS UPON ACTIVATION OF FIRE PROTECTION SYSTEM.

M. ALL REFRIGERATION SYSTEMS ARE LOCATED APPROXIMATELY WHERE SHOWN ON PLAN UNLESS OTHERWISE NOTED. THE FOLLOWING ITEMS ARE NOT BY THE FSEC: ROOF CURBS/CONCRETE PADS; SLEEVED & SEALED PENETRATIONS IN ROOFS/FLOORS/CEILINGS/WALLS.

Q. SEE FOODSERVICE EQUIPMENT DISHMACHINE SCHEDULE FOR THE SENSIBLE AND LATENT HEAT DISSIPATION FROM THE DISHMACHINE. VENTILATE THE DISHROOM ACCORDINGLY. THESE VALUES ARE TO CALCULATE VENTILATION REQUIRED IN ADDITION TO EXHAUST LISTED IN SCHEDULE. THIS HEAT IS ADDITIONAL HEAT NOT EXHAUSTED THRU MACHINE VENTS.

V. MECHANICAL TRADES TO INSTALL INCHES TO INCHES GAS PRESSURE REGULATOR FURNISHED BY FSEC. (SEE NOTE 13)

W. MECHANICAL TRADES TO CONCEAL MAIN GAS PIPING IN WALL. DO NOT RUN EXPOSED ON FACE OF WALL. MINIMIZE EXPOSED PIPING FOR FINAL CONNECTIONS.

X. THIS EQUIPMENT IS EXISTING. MECHANICAL/ELECTRICAL TRADES TO DISCONNECT, FSEC TO RELOCATE AND SET IN PLACE, FINAL RE-CONNECTION BY MECHANICAL/ELECTRICAL TRADES. MECHANICAL/ELECTRICAL TRADES TO COORDINATE UTILITY REQUIREMENTS WITH EXISTING EQUIPMENT & FSEC PRIOR TO ROUGH-IN.

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VALLEY SOUTHWOODS CTE ADDITION

WEST DES MOINES COMMUNITY SCHOOLS
625 S. 35TH ST.
WEST DES MOINES, IA 50265

DRAWN: MM
APPROVED:
ISSUED FOR: BID DOCUMENTS
DATE: 2021-11-01
PROJECT NO:4202990
FIELD BOOK:

FOODSERVICE EQUIPMENT MECHANICAL SCHEDULE

FSM100

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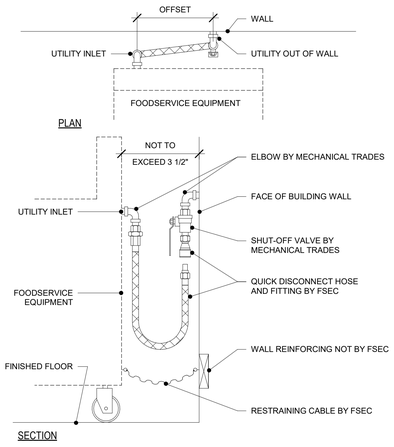

NOTE:
IF UTILITY INLET IS NOT AT HEIGHT SHOWN, MECHANICAL TRADES TO PROVIDE PIPING WITH ELBOWS TO RAISE INLET.

QUICK DISCONNECT

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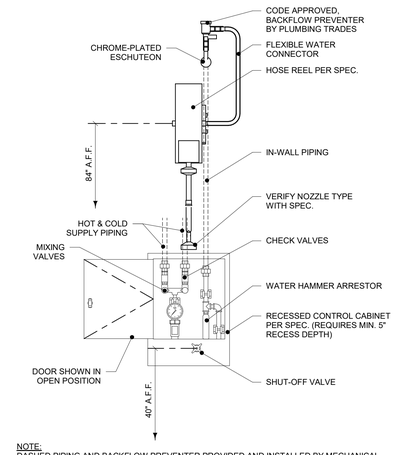

NOTE:
DASHED PIPING AND BACKFLOW PREVENTER PROVIDED AND INSTALLED BY MECHANICAL TRADES. ALL OTHER COMPONENTS SUPPLIED BY FOODSERVICE EQUIPMENT CONTRACTOR AND INSTALLED BY PLUMBING TRADES.

HOSE REEL

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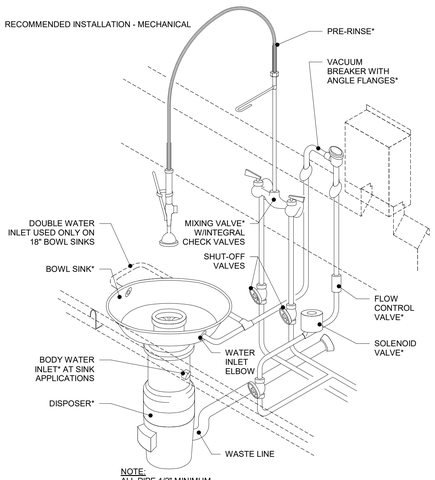

NOTE:
ALL PIPE 1/2" MINIMUM

DISPOSER

*THESE COMPONENTS FURNISHED BY FSEC. ALL OTHER COMPONENTS AND INSTALLATION PROVIDED BY PLUMBING TRADES.

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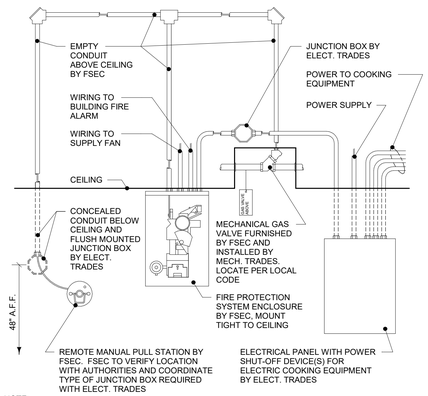

NOTE:

1. ELECTRICAL COMPONENTS AND INTERWIRING BY ELECTRICAL TRADES UNLESS NOTED OTHERWISE.
2. CONDUIT CONCEALED IN WALL WHEREVER POSSIBLE. EXPOSED CONDUIT TO BE CHROME-PLATED.
3. LOCATE GAS VALVE ABOVE CEILING PLANE WHEN ALLOWED BY CODE. COORDINATE WITH LOCAL FIRE MARSHAL

WET CHEMICAL FIRE PROTECTION SYSTEM

WIRING DIAGRAM - MECHANICAL GAS VALVE

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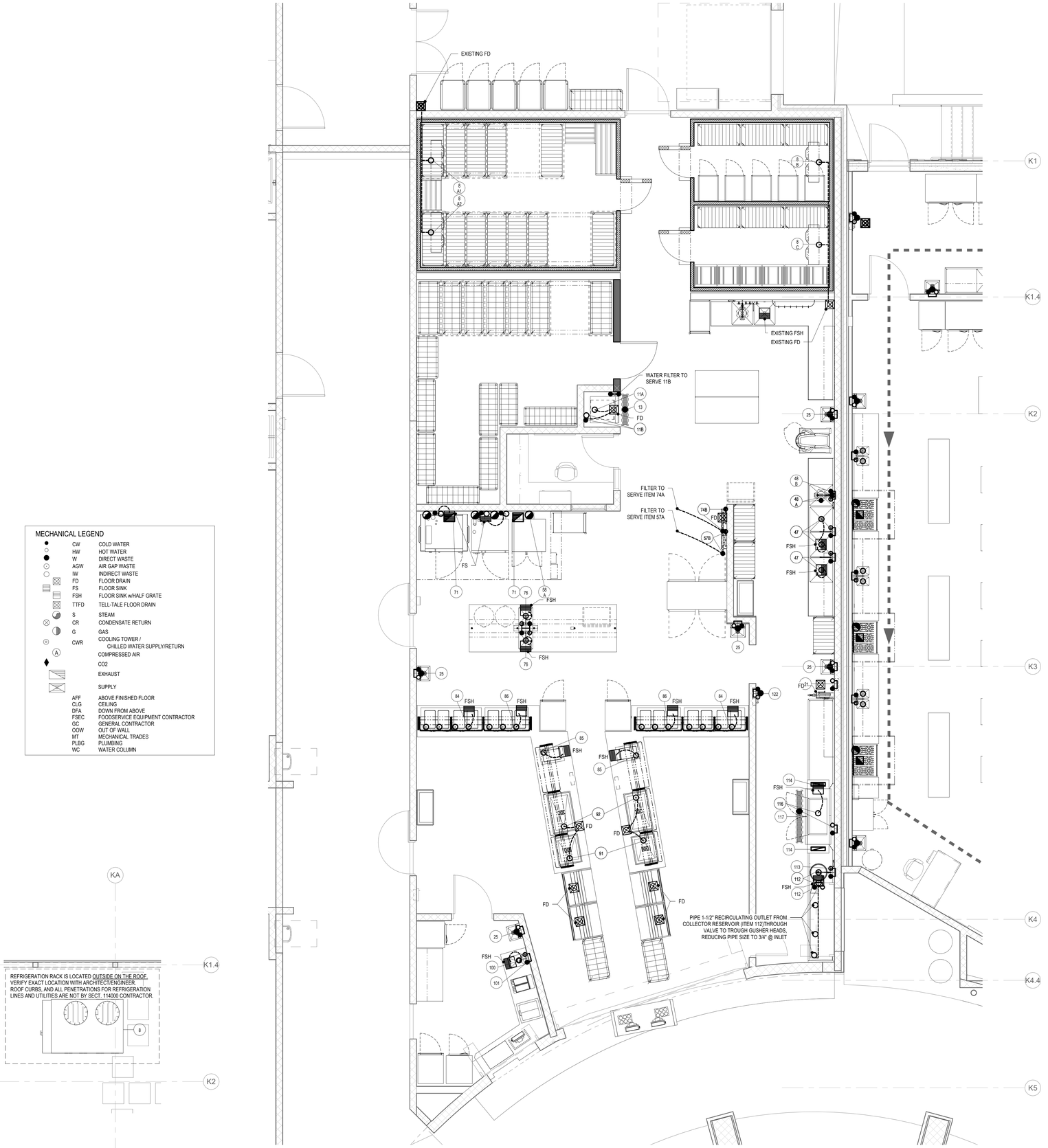
FOODSERVICE EQUIPMENT MECHANICAL DETAILS

FSM101



MECHANICAL LEGEND

	CW	COLD WATER
	HW	HOT WATER
	W	DIRECT WASTE
	AGW	AIR GAP WASTE
	IW	INDIRECT WASTE
	FD	FLOOR DRAIN
	FS	FLOOR SINK
	FSH	FLOOR SINK w/HALF GRATE
	TTFD	TELL-TALE FLOOR DRAIN
	S	STEAM
	CR	CONDENSATE RETURN
	G	GAS
	CWR	COOLING TOWER / CHILLED WATER SUPPLY/RETURN
A		COMPRESSED AIR
	CO2	
		EXHAUST
		SUPPLY
	AFF	ABOVE FINISHED FLOOR
	CLG	CEILING
	DFA	DOWN FROM ABOVE
	FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
	GC	GENERAL CONTRACTOR
	OOW	OUT OF WALL
	MT	MECHANICAL TRADES
	PLBG	PLUMBING
	WC	WATER COLUMN

2 FOODSERVICE MECHANICAL ROOF PLAN - REFRIGERATION
1/4" = 1'-0"

1 FOODSERVICE MECHANICAL PLAN - KITCHEN & SERVERY
1/4" = 1'-0"

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FOODSERVICE EQUIPMENT MECHANICAL PLAN - KITCHEN / SERVERY

FSM102

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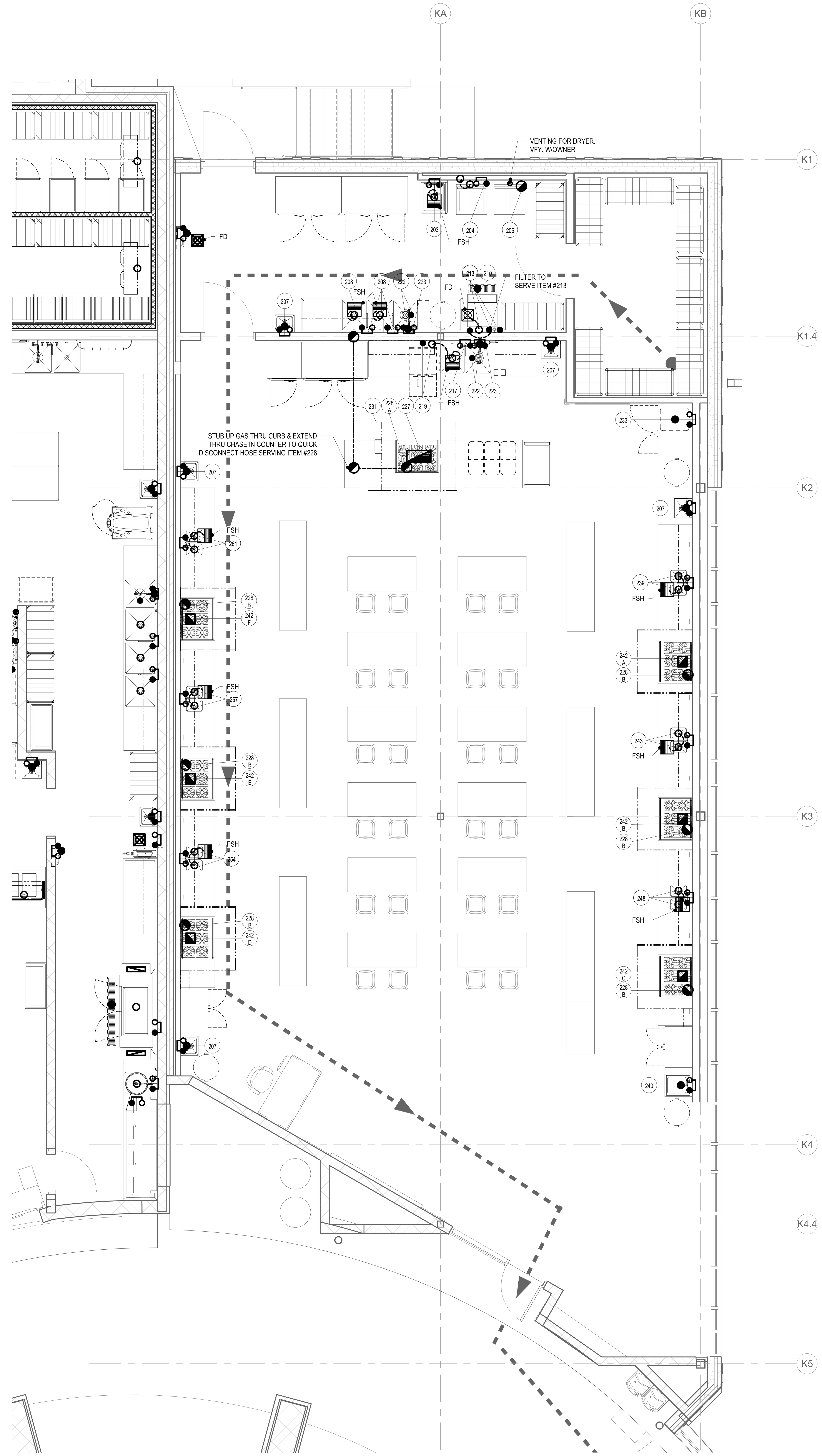

MECHANICAL LEGEND

●	CW	COLD WATER
○	HW	HOT WATER
●	W	DIRECT WASTE
⊙	AGW	AIR GAP WASTE
○	IW	INDIRECT WASTE
⊠	FD	FLOOR DRAIN
▤	FS	FLOOR SINK
▤	FSH	FLOOR SINK w/HALF GRATE
⊠	TTFD	TELL-TALE FLOOR DRAIN
	S	STEAM
⊗	CR	CONDENSATE RETURN
◑	G	GAS
◎	CWR	COOLING TOWER / CHILLED WATER SUPPLY/RETURN
Ⓐ		COMPRESSED AIR
♦		CO2
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	FSEC	FOODSERVICE EQUIPMENT CONTRACTOR
	GC	GENERAL CONTRACTOR
	OOW	OUT OF WALL
	MT	MECHANICAL TRADES
	PLBG	PLUMBING
	WC	WATER COLUMN

1 FOODSERVICE MECHANICAL PLAN - CULINARY LAB
1/4" = 1'-0"

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FOODSERVICE EQUIPMENT MECHANICAL PLAN - CULINARY LAB

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