

SECTION 114000  
FOODSERVICE EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including General and Supplementary Conditions and Division 1 Sections, apply to this Section.

1.2 SCOPE

- A. Attention is directed to the detailed Item Specifications, which provide for minimum acceptable products. Item Specifications paragraphs may indicate materials or components that exceed the manufacturer's standards and are required for this project.
- B. Cooperate and coordinate with others engaged on the project in order that work will progress on schedule.
- C. Work to be performed under this Section is shown on Foodservice Equipment Drawings.
- D. Install materials furnished under this Section, other than materials that are expressly noted for installation under other Sections. Installation work shall be performed by workmen compatible with those existent on the project site. Equipment shall be of the latest design; new and unused, unless indicated otherwise in the Item Specifications, complete with all standard parts for normal operations and including such accessories or materials as may be required to comply with these Specifications.
- E. This Specification is to further describe and supplement the applicable Drawings. What is called for by either the Drawings and/or these Specifications shall be furnished and installed as part of this work. Any questions relative to discrepancies or omissions shall be submitted to the Architect.
- F. Provide neatly punched openings or cutouts required to permit passage of plumbing and electrical services by related trades and to accommodate mounted switches and receptacles in the equipment.
- G. Work in this Section shall include but shall not be limited to the following:
  - 1. Catalog items of equipment.
  - 2. Fabricated equipment other than catalog items.
  - 3. Plumbing trim consisting of mechanical system components required for standard operation of equipment items such as faucets and waste outlets. Vacuum breakers shall be furnished for equipment where water is introduced less than 2 in. above flood level.
  - 4. Electrical equipment forming an integral part of equipment items such as electric motors, heating elements, controls, switches, starters, temperature regulators and internal wiring to a control panel or switch, if mounted on the equipment.

- H. Sustainable Design Intent: Comply with project requirements intended to achieve a rating, measured and documented according to the LEED Green Building Rating System, of the US Green Building Council.

### 1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Finished floor and walls, structural supports for all ceiling supported equipment, acoustical ceilings and related building.
- B. Connecting piping, waste lines, traps and vent piping, complete with shut-off valves to all the equipment, and the rough-in for sanitary waste, domestic water, floor drains and plumbing fixtures except those provided under this Section, and related mechanical work.
- C. Rough plumbing including, but not limited to shut-off valves and thermostatic mixing valves at hand washing sinks furnished hereunder: SECTION 220001-PLUMBING.
- D. Exhaust ventilating systems complete with blowers, ductwork, hangers, access panels, and insulation between the exhaust collars and the exhaust blowers.
- E. External wiring; the mounting and wiring of motor starters, solenoid valves, switches and receptacles not integral with the equipment; mounting and wiring of walk-in refrigerated room ceiling mount light fixtures; wiring of walk-in refrigerated room interior evaporator coils; connecting conduit, and external connections to equipment to the building electrical distribution system.

### 1.4 SUBMITTALS

- A. Submit Shop Drawings for approval in accordance with the General Conditions.
- B. Stub-in drawings shall indicate the layout of equipment and dimensioned locations of all services to the equipment.
  - 1. Hand drawn scale: 1/2 in. = 1 ft., 0 in.
  - 2. CAD drawn scale: 1/4 in. = 1 ft., 0 in.
  - 3. Stubbed services shall include electrical, hot and cold water, floor drains or floor sinks, solid wastes and exhaust collar connections. Point of connection services shall include steam supply, condensate return, gas connection and indirect waste connections. Service dimensions shall include height measured from finish floor.
  - 4. Electrical and plumbing services shall be indicated and coordinated on the same drawing.
  - 5. Call-outs for each stub point indicated at the point, or clearly keyed to a schedule on the same drawing.
  - 6. Special conditions plan shall include all floor recesses, curbs and special wall construction indicated and dimensioned.
- C. Fabrication drawings shall be furnished for non-catalog items, showing plans, elevations and full construction details with gauges, components, fasteners, erection and connections. Drawings shall be to the minimum scale of 3/4 in. = 1 ft., 0 in.
- D. Standard items of equipment, not built-in or part of other assemblies shall be submitted for approval in the form of bound catalog cuts. Each cut shall include a clearly marked item number, a listing of all optional accessories and finishes, and connection data.

- E. Catalog Cuts shall include letters of approval, under a separate binder, indicating compliance with M.G.L. c. 142 and 248 CMR. Only products and materials that have been listed by the Board as Product-approved shall be used for plumbing and gas fitting work performed in the Commonwealth of Massachusetts.
  - 1. Catalog Cuts shall include operation manuals for all existing foodservice equipment that is scheduled for reuse and that requires gas fitting work performed in the Commonwealth of Massachusetts.
- F. Mechanical refrigeration system submittal shall include the firm name and address of the installation contractor and name of the qualified installer.
- G. Energy Star - Specified Energy Star rated equipment and appliances shall serve as the standard for all types of equipment and appliances whenever possible. Kitchen Equipment Contractor shall clearly indicate that items are Energy Star rated both on the submittal cover sheet and manufacturer cut sheets.
- H. Failure to comply with approved shop drawings shall be cause for rejection of an improperly built assembly.

#### 1.5 SAMPLES

- A. If the bidder's proposed equipment fabricator is unknown to the Consultant's office, immediately after award of contract, submit the following samples for selection and approval.
  - 1. Section of table showing edge, bullnose, framing, fasteners, gusset, leg, and foot, all assembled.
  - 2. Drawer assembly (will be returned for use on this project).
- B. Work delivered to the job shall match approved samples.

#### 1.6 GUARANTEES AND WARRANTIES

- A. New equipment furnished for this facility shall be guaranteed for a period of not less than one calendar year beginning on the date of final acceptance of the work of this Section. In the case of a manufacturer whose standard warranty exceeds this period the longer period shall apply. Self-contained refrigeration units for reach-in refrigerators, freezers, ice cream chests and ice machines shall carry a five-year replacement warranty for the sealed unit. The guarantee shall protect against defective material, design and workmanship.
- B. In addition to the guarantee called for under the General Conditions, this Contractor shall further agree that in the event of failure of any system or item of equipment or improper functioning of specified work during the guarantee period, he shall have "on call" competent service personnel available to make the necessary repairs or replacements of specified work promptly at no cost to the Owner. In the event that replacement of an entire item is required, the Owner will have the option of full use of the defective equipment until a replacement has been delivered and completely installed.
- C. Furnish manufacturer's warranties for each item of standard equipment and a warranty on fabricated equipment. Submit guarantees and warranties to the Architect in accordance with conditions found in "Demonstration and Operating Instructions" paragraphs, contained in Part 3, this Section.

1.7 REGULATORY AGENCIES

- A. Work shall be in accordance with the governing health, building and safety, and fire protection codes and regulations.
- B. Standards of the National Sanitation Foundation (NSF) shall serve as guidelines for the work of this Section.
- C. Electric equipment and accessories shall conform to the standards of the National Electric Manufacturers Association (NEMA), Underwriters Laboratories, Inc. (UL) or Electrical Testing Station (ETS).
- D. Steam generating equipment and accessories shall conform to the standards of the American Society of Mechanical Engineers (ASME).
- E. Gas fired equipment and accessories shall conform to the standards of the American Gas Association (AGA) and the American National Standards Institute (ANSI) Z83.11.
- F. Energy Star - Specified Energy Star rated equipment and appliances shall serve as the standard for all types of equipment and appliances whenever possible.
- G. BOARD OF STATE EXAMINERS OF PLUMBERS AND GAS FITTERS: Board Required Product-approval. Only products and materials that have been listed by the Board as Product-approved shall be used for plumbing and gas-fitting work performed in the Commonwealth and governed by M.G.L. c. 142 and 248 CMR.

1.8 EQUALITY OF MATERIALS AND EQUIPMENT

- A. The base bid shall contain no substitutions to these drawings or specifications. Bidders may offer substitute equipment in a separate proposal, indicating the proposed model and sum to be added or deducted if the alternate item is accepted by the Owner. Each line item shall include delivery, installation and taxes. Decisions to accept or reject a piece of equipment shall be made by the Owner, and all decisions shall be final.

## PART 2 - PRODUCTS

### 2.1 MATERIALS AND FINISHES

#### A. General

1. Metals shall be free from defects impairing strength, durability or appearance, made of new materials with structural properties to withstand strains and stresses to which normally subject.
2. Stock materials, patterns, products and methods of fabrication shall be approved provided that they conform to the requirements specified under Item Specifications.

#### B. Stainless Steel

1. Stainless steel shall be non-magnetic corrosion resistant chromium-nickel steel, Type 302 or 304 (18-8 Alloy), polished to a Number 4 finish where exposed, unless otherwise noted. Minimum gauges shall be as specified under Item Specifications.

#### C. Galvanized (Galvannealed) Steel

1. Galvannealed steel shall be commercial quality with tight coat of zinc galvanizing metal applied to a soft steel sheet, subsequently passed through a 1200 degree F. oven, resulting in a spangle free paintable surface. Minimum gauges shall be as specified under Item Specifications.

#### D. Plastic Laminate Materials

1. The laminate facing shall be GP-50, .050 in. thick, general purpose, high pressure, decorative plastic laminate that meets or exceeds the requirements of NEMA Publication LD3-1985, and NSF Standard 35. The plastic laminate exposed surfaces shall be provided in accordance with the specified manufacturer, finish and color. Balancing sheet shall be backing grade GP-28 in matching color at semi-exposed and BK-20 unfinished where hidden.
2. Plastic laminate covered surfaces shall be factory fabricated with 3/4 in. thick core having plastic laminate facing on both faces and all edges, laminated with waterproof glue under pressure in accordance with the plastic laminate manufacturer's specifications.
3. The core shall be medium density phenolic resin particleboard conforming to ANSI A208.1, Type 2-M-2, 45 pound per cubic foot density minimum.
4. Provide veneer core plywood or solid hardwood edge banding for doors and vertical dividers or panels where hardware is attached to casework.
5. Hinges shall be articulated, spring loaded type equal to Grass CST65-170-F or Stanley, with quantity adequate to support the door without deformation. Do not provide handles on plastic laminate clad doors.

## 2.2 CONSTRUCTION

### A. General

1. Flat metal work items of equipment, such as tables, sinks, or counter tops, and other non-catalog items described under Item Specifications, shall be manufactured by a food service equipment fabricator who has the plant, personnel and engineering facilities to properly design, detail and manufacture high quality food service equipment.
2. The equipment fabricator shall be subject to the approval of the Architect, Owner and Consultant. Refer to Paragraph 1.05, Samples.
3. Fabricated foodservice equipment shall be manufactured by one manufacturer, of uniform design, material and finish.
4. Equipment shall conform to the applicable requirements of current Federal, State, and Local Codes and Regulations.

### B. Welding

1. The words "weld", "welded" or "welding" as used in this Section of the Specification shall mean that metal joints shall be continuously welded and the exposed parts ground smooth and polished to match adjoining surfaces. Welding electrodes shall match the material being welded.
2. Where spot welding is specified, the welds shall be a maximum spacing of 3 in. on center.
3. Where tack welding is specified, the pieces welded shall have 1/2 in. minimum lengths of welding material at 4 in. on center maximum spacing.

### C. Grinding, Polishing and Finishing

1. Exposed welding joints shall be ground flush with the adjoining material and neatly finished to harmonize therewith. Wherever material has been depressed or sunken by a welding operation, such depressions shall be suitably hammered and peened flush with the adjoining surfaces and, if necessary, again welded and ground to eliminate low spots. Ground surfaces shall be polished or buffed to a degree consistent with good workmanship. Coves shall be ground and polished to match adjoining material.
2. Care shall be exercised in grinding operations to avoid excessive heating of metal and discoloration. Abrasives, wheels, and belts used in grinding stainless steel shall be iron free and shall have not been used on carbon steel. The texture of the final polishing operation shall be uniform and smooth. Grain direction shall be uniform, uni-directional for a total length of material. Cross grains and random polishing are not acceptable.
3. The general finish of equipment shall be consistent throughout the job. Brake ends shall be free of open texture or orange peel appearance, and where brake work mars the uniform finish of the material, the marks shall be removed by grinding and polishing, and finishing. Sheared edges shall be free of burrs, projections or fins to eliminate all danger of laceration. Mitered or bullnosed corners shall be neatly finished with the underedge of the material neatly ground to a uniform condition and in no case will overlapping material be acceptable. The equipment surfaces, where exposed, shall be finished to a grained Number 4 (satin) finish unless otherwise specified. An exposed surface shall include an inside surface, which is exposed to view when a swinging or sliding door is opened. Underside of shelves need not be satin finish unless otherwise specified.
4. Excessive distortion caused by welding shall be cause for rejection for that item of equipment.

## 2.3 BUY-OUT COMPONENTS

- A. CASTERS: 5 in. diameter polyurethane tired, swivel, plate or stem mount to suit application, 300 pound capacity, brakes only if specified, NSF approved; Component Hardware C-21-3050 (plate/no brake), C21-3051 (plate/brake) C23-3350 (stem/no brake) or C23-3351 (stem/brake), or equal by Kason, or PDI Atlanta.
- B. COUNTER LEGS: Stainless steel, 6 in. to 7-3/4 in. height adjustment; Component Hardware A72-0811, or A77-5048, or equal by Kason, or PDI Atlanta.
- C. DOOR AND DRAWER PULLS: Stainless steel, full grip type with beveled edge, NSF approved for stud mounting in device, in horizontal attitude to meet NSF requirements; Component Hardware P63-1012, or equal by Kason, or PDI Atlanta.
- D. DOOR HINGES: Stainless steel, lift off type, swedged knuckle for minimum clearance, nylon bearings; Component Hardware M75-1002 or equal by Kason, or PDI Atlanta.
- E. DRAWER PANS: Molded plastic or fiberglass, 20 in. by 20 in. by 5 in. deep, NSF approved; Component Hardware S80-2020, or equal by Kason, or PDI Atlanta.
- F. DRAWER SLIDES: Stainless steel, NSF approved, full extension, 200 pound capacity with stainless steel ball bearing wheels; Component Hardware S-52 series, or equal by Kason, or PDI Atlanta.
- G. FAUCET SETS, DECK MOUNTED: Chrome plated cast bronze with 1/2 in. IPS eccentric flanged female inlets on 8 in. centers, removable cartridges, lever handles, and aerator tip on swivel nozzle or swivel gooseneck to suit the application; T&S Brass B-0221 or B-0321, or equal by Component Hardware, Chicago, or Fisher.
- H. FAUCET SETS, POTWASHING SINK: Chrome plated cast bronze with removable cartridges, 3/4 in. passages, eccentric flanged female inlets on 8 in. centers with LL street EL inlets with locknuts, four prong handles, 12 in. swing spout; T&S Brass B-0290 or equal by Component Hardware, Chicago, or Fisher.
- I. FAUCET SETS, SPLASH MOUNTED: Chrome plated cast bronze with 1/2 in. IPS eccentric flanged female inlets on 8 in. centers, removable cartridges, lever handles, and aerator tip on 12 in. swing spout; T&S Brass, B-0231-CC or equal by Component Hardware, Chicago, or Fisher. Provide each with a mounting kit.
- J. GUSSETS: Stainless steel, stepped side, fully closed, NSF approved, mild steel interior reinforcement, wide flange for welding to framing, set screw anchor for leg; Component Hardware A20-0206C, or equal by Kason, or PDI Atlanta.
- K. LEG AND BULLET FOOT ASSEMBLIES: Stainless steel tubing, 16 gauge, number 4 finish, adjustable bullet foot with minimum of 3 in. vertical travel, 2,000 pound capacity, top designed for mounting in gusset, length to suit application; Component Hardware A46-6272-C, or equal by Kason, or PDI Atlanta.
- L. LEG AND FLANGED FOOT ASSEMBLIES: Stainless steel tubing, 16 gauge, number 4 finish, adjustable bullet foot with 3-1/2 in. diameter flange and two holes for securing to floor, minimum of 3 in. vertical travel, 2,000 pound capacity, top designed for mounting in gusset, length to suit application; Component Hardware A46-4272-C, or equal by Kason, or PDI Atlanta.

- M. NUTS: Zinc plated "Pal Nuts" with integral cap and lockwasher; Component Hardware Q-34-1024 or equal by Kason, or PDI Atlanta.
- N. SEALANT: Sealant for sealing equipment to walls or filling crevices between components. All materials listed below that are used in the building interior must not exceed the following requirements:
  - 1. South Coast Air Quality Management District (SCAQMD) Rule #1168
  - 2. For interior adhesives and sealants applied within the weatherproof barrier, submit a printed statement of VOC content.
- O. SOUND DEADENING BASINS: Component Hardware Q75-1366 or equal by Kason, or PDI Atlanta
- P. SOUND DEADENING TOPS AND SHELVES: Component Hardware Q85-5225, or equal by Kason, or PDI Atlanta, "Tacky Tape" installed between all channel or angle reinforced tops, drainboards or undershelves.
- Q. WASTE OUTLETS, CRUMB CUP: Stainless steel body, removable crumb cup stopper, gasket, coupling nut and sealing washer, 1-1/2 in. IPS, and optional 4 in. long nickel plated brass tailpiece with gasket; Component Hardware E38-1010, or equal by Kason, or PDI Atlanta.
- R. WASTE OUTLETS, LEVER OPERATED: Cast stainless steel rotary type with 1-1/2 in. NPS and 2 in. NPS threads, and removable beehive crumb-cup; Component Hardware DSS-8000 or equal by Component Hardware, Chicago, or Fisher.
- S. WELD STUDS: Copper flashed steel with 10-24 threads, length to suit; Component Hardware Q-36, or equal by Kason, or PDI Atlanta.
- T. GFCI RECEPTACLES: Pass & Seymour 2095-W, 115 volt, 20 amp GFCI Duplex Receptacle or equal.

## 2.4 FABRICATED COMPONENTS

- A. Box Type Cabinet Construction
  - 1. Sheet metal cabinet bases of box type construction shall be fabricated without general interior framing. Structural strength shall be achieved by the gauge of the metal and the formed angle and channel edges and corners. Vertical sections shall be closed. Cabinet base shall be fabricated of 18 gauge minimum of material specified at Item Specifications. Mount on counter legs or base as specified.
  - 2. Intermediate shelf shall be fabricated of 16 gauge stainless steel with rear and sides turned up 1-1/2 in. tight to the cabinet sides. The front edge of shelf shall be turned down 1-1/2 in. and in 1/2 in. at 45 degrees and shelf spot welded in place. Reinforce underside with longitudinal 14 gauge channel on the centerline.
  - 3. Bottom shelf shall be fabricated of 16 gauge stainless steel similar to the intermediate shelf except that the front edge shall be formed into a full width 1-1/2 in. by 4 in. welded in boxed channel. Rear edge shall be fitted with a full width channel. Underside shall be reinforced.



B. Counters and Drainboards

1. Counters, table tops and drainboards shall be 14 gauge stainless steel, of NSF construction, with edges per Item Specifications. Metal tops shall be made of the largest pieces available and shall appear as one piece with all field and shop joints reinforced and welded, ground and polished. Short pieces of metal will not be acceptable. Counter bends shall be not less than 1/8 in. radius. Wherever a fixture has a waste or drain outlet, the surface shall pitch toward the outlet.
2. Counters, table tops and drainboards shall be reinforced with channel or angle frame as specified in the Item Specifications. Framing shall be secured to the underside with sound deadening material sandwiched between the surfaces, weld studs, and nuts.
3. Wherever bolts or screws are welded to the underside of trim or tops, neatly finish the reverse side of the weld uniform with the adjoining surface of the trim or top. Depressions at these points will not be acceptable. Raise dimples and depressions by peening, or heating and shrinking, and grind and polish to present a flat surface.

C. Crossrails

1. Crossrails shall be not less than 1-1/4 in. outside diameter 16 gauge stainless steel tubing welded, ground and polished to a Number 4 finish. Crossrails shall be welded to legs at a height of 10 in. above finished floor, and shall extend from left to right between front legs, unless otherwise specified, and from front to back between all legs.

D. Drawer Assembly

1. Drawer assemblies shall consist of a removable drawer pan set in a removable 16 gauge stainless steel channel shaped drawer support frame with gusset plate reinforced corners.
2. Support frame shall have double pan front cover consisting of boxed 18 gauge stainless steel outer shell with welded corners, flush mounted recessed stainless steel pull, 20 gauge stainless steel back shell tack welded to outer shell with fiberglass sound deadening between. Drawer shall be provided with rubber bumpers to quiet closing. Support drawer frame on full extension drawer slides.
3. Drawer shall be suspended from table in a three-sided, 16 gauge stainless steel enclosure with flanged-in bottom edges, banded lower front, flanged-out front side and top edges. All sharp corners shall be broken and any exposed exterior threads of slide mounting bolts shall be provided with solid metal acorn nuts.
4. Component Hardware S91-0020 with thermoplastic pan is considered as equivalent to the above specified construction.

E. Edges

1. Marine: Bumped up 1/2 in. at 45 degrees and turned down 1-1/2 in. and in 1/2 in. at 45 degrees; corners welded and square.
2. Raised roll: Coved up and rolled 180 degrees on a 1-1/2 in. diameter with 3 in. height; corners welded and rounded or coved.
3. Rolled: Rolled 180 degrees on a 1-1/2 in. diameter; corners welded and bullnosed.
4. Short (6 in.) splash on counters and tables: Coved up 6 in., turned back to wall or equipment 1 in. and down 1/2 in.; ends welded closed. Secure tight to face of wall with clips unless specified otherwise and seal joint.
5. Tall (10 in.) splash on preparation sinks, dishtables, counter, and tables: Coved up 8-1/2 in., turned back to wall or equipment 1-1/2 in. at 45 degrees and down 1/2 in.; ends welded closed. Secure 3 in. off face of wall with brackets unless specified otherwise.
6. Turn down: Turn down 2 in. and in 1/2 in. at 45 degrees; corners welded and square.

F. Framing of Tops, Drainboards, Undershelves

1. Channel: Reinforce with 1 in. by 4 in. by 1 in. 14 gauge galvanized steel channels; stainless steel if exposed to view. Channels shall run front-to-back at all legs and longitudinally on the centerline. Cross and longitudinal members shall be welded into a single assembly at intersections and sharp corners shall be broken. Framing shall be secured to underside of tops with pairs of weld studs. Framing shall be installed maintaining NSF required clearance to adjacent vertical surfaces and edges of top. The following specified angle framing is considered superior to channel framing and may be used in its place.
2. Angle: 1-1/2 in. by 1-1/2 in. by 1/8 in. perimeter angle frame with crossmembers not over 30 in. on center. Framing shall be secured to top with weld studs, 18 in. on center maximum with three minimum studs on any single face of a table. Perimeter angle frame that is exposed to normal view, shall be stainless steel. Crossmembers and framing not unexposed to normal view shall be iron. Corners of angle frame shall be mitered, or notched and brake formed to form a closed corner. Corner gusset plates used for mounting of leg gussets shall be 1/8 in. thick and sealed to underside of the top. Iron framework joints shall be ground smooth, and shall be painted with a minimum of two coats of aluminum lacquer after degreasing. Framing shall be installed maintaining NSF required clearance to adjacent vertical surfaces and edges of top. Channel framing shall not be considered equal to specified angle framing.
3. Sound deaden all horizontal framed surfaces with material sandwiched between the framing and the bottom of the surface.

G. Hinged Doors

1. Hinged doors shall be double pan type stainless steel construction with 18 gauge exterior and 20 gauge interior, welded corners, and 1/2 in. fiberglass insulation for sound deadening. Each door shall be provided with a stainless steel recessed handle, and an adjustable tension door catch equal to Component Hardware M22-2430. Doors shall close against the bottom shelf and flush with body of equipment.
2. Louvered hinged doors for ventilation shall be fabricated of the same components and provided with a full perimeter 3 in. wide channel reinforcing frame on the interior face. Remaining face shall be die punched with drip-proof louvers fully utilizing the remaining flat metal or a stainless steel flattened expanded metal grille per Item Specifications.

H. Sinks and Sink Inserts

1. Unless otherwise specified, sinks including sink inserts built into tops of fixtures, shall be made of 14 gauge stainless steel with all vertical and horizontal corners rounded to a radius of approximately 3/4 in. with the intersections meeting in a spherical section. Sinks shall be integrally welded to fixture tops.
2. Sinks with two or more compartments shall have full height, 1 in. thick double wall partitions consisting of two pieces of stainless steel back-to-back so fabricated that each compartment will be a deep bowl with coved corners. Partitions shall be welded in place to the bottom, front and back of the sink with smooth rounded coved corners. Top edges of the partitions shall be continuously welded. The front of the sinks shall consist of a stainless steel smooth, flush apron, same gauge as the sinks. Bottom and rear of partitions shall be closed. Sink dimensions contained in Item Specifications are inside dimensions.

3. Sinks shall be provided with integral 14 gauge stainless steel drainboards when specified. Drainboards and sink basins shall be pitched toward waste outlets and shall be self draining. The underside of all sink basins shall sound deadened. Sink units shall be provided with an integral splash at walls. Provide the necessary holes for the mounting of faucet sets.

I. Sliding Doors

1. Sliding doors shall be double pan type stainless steel construction with 18 gauge exterior and 20 gauge interior, welded corners, and 1/2 in. fiberglass insulation for sound deadening. Each door shall be provided with a stainless steel recessed handle. Provide sliding doors with nylon roller bearing sheaves and overhead track components equal to Component Hardware B58-5523 and 5513 sheaves, B57 track, B62-1093 nylon door guides and B60-1086 door stops.

J. Undershelves

1. Undershef in an open type table shall be 16 gauge stainless steel unless otherwise noted. Edges shall be turned down 1-1/2 in. and in 1/2 in. at 45 degrees with corners notched out to fit legs to which shelf shall be welded from underside. Line up all edges of shelf with centerline of legs. Reinforce underside with longitudinal 14 gauge channel on the centerline.

K. Wall Brackets

1. Dish tables, sinks and counters with sinks shall be securely anchored 3 in. off the face of the wall unless specified otherwise. Brackets shall be "Z" shaped and fabricated of 3 in. wide, 14 gauge stainless steel. Brackets shall be secured in a vertical attitude to the rear of equipment backsplash with weld studs, and to the wall with appropriate fasteners.
2. Counters that are specified tight-to-wall shall be secured in a hidden manner with steel clips, and the wall/fixture joint shall be sealed.

L. Wall Shelves

1. Wall shelves shall be fabricated of 16 gauge stainless steel, size per Item Specifications, with back and ends raised 1-1/2 in., front edges of ends angled back, all corners broken, and front turned down 1-1/2 in., and in 1/2 in. at 45 degrees. Shelf corners shall be welded, ground and polished. Mount shelf 1 in. off face of wall with suitable fasteners on 14 gauge stainless steel flag brackets, 48 in. on center maximum. Flag brackets shall have a web angle of 30 degrees, measured from horizontal.

## 2.5 ELECTRICAL EQUIPMENT AND WIRING

- A. Under this Section, items of equipment having mounted electrical motors, electrical heating units, lighting fixtures, controllers, control stations, switches, receptacles and the like shall be internally wired as specified herein, terminating at a junction box mounted on the equipment and left ready for connection to the building electrical distribution system by the Electrical Contractor. Extra ceiling mount light fixtures for refrigerated rooms shall be delivered to Electrical Contractor for field installation and wiring. Connections to evaporator coils mounted inside refrigerated rooms shall be wired by the Electrical Contractor.
- B. Provide openings or cutouts required to accommodate the switches and receptacles in the specified work, and the wiring in conduit from terminal blocks in junction boxes.

- C. Electrically operated equipment and fabricator wiring shall conform to the requirements of Underwriter's Laboratories, Inc. Motors over one horsepower shall be equipped with overload protection.
- D. Furnish wiring diagrams for equipment as requested by the Architect or Contractor.

## 2.6 ITEM SPECIFICATION

### Item 1

#### MOP SINK AND FAUCET

No work in this Section. Units provided by Plumbing Contractor.

### Item 2

#### UTILITY SHELF

Make - Advance Tabco K-245 or equal by Eagle

Size - 24 in. by 8 in. by 7-1/2 in. high

Description - Unit shall be all standard construction of welded 18 gauge stainless steel type 430 polished satin finish, back and sides turned up 1-1/2 in., mounted on two die formed wall brackets and furnished with two mop hangers and three rag hooks.

### Item 3

#### DETERGENT STORAGE CABINET

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 30 in. by 18 in. by 72 in. high

Construction - 16 gauge stainless steel sloped top at 104 degrees with edges turned down, 18 gauge stainless steel cabinet body, fixed bottom shelf, three adjustable intermediate shelves, and 63 in. high double pan hinged doors at front. Mount on 6 in. high stainless steel adjustable legs. Secure unit to wall and seal as required.

Accessories - Provide unit with two (2) three point "T" handles, one locking and barrel bolts mounted to inside top and bottom of door.

### Item 4

#### STACKED WASHER AND DRYER

Make - UniMac UTEE5ASP175TW01 or equal Wascomat or Speed Queen

Size - 27 in. by 27-3/4 in. by 78-3/16 in. high

Power - 30 amps circuit - 120/240/60/1 - NEMA 14-30P

20 amps circuit - 120/60/1 - NEMA 5-15P

Exhaust - 4 in. diameter dryer vent

Maximum Water Use - Less than 3.7 gallons/ft<sup>3</sup>/cycle

Certification - Unit shall be Energy Star compliant and CEE qualified.

Description - Washer shall be all standard construction with white exterior, see-thru door with heavy duty stainless steel hinge, 3.42 cubic foot front loading basket, detergent dispensers, front panel control, three wash/rinse temperatures, and five selectable wash cycles. Dryer shall be all standard construction with white exterior, see-thru door with heavy duty stainless steel hinge, lint filter, and interior light.

### Item 5

#### LOCKERS

No work in this Section. Units provided by General Contractor.

Item 6

STORAGE SHELVING, FIVE-TIER

Quantity - 10

Make - Metro Super Adjustable Super Erecta or equal by Eagle or Nexel

Size - (9) 60 in. by 24 in. and (1) 36 in. by 21 in. all 74-5/8 in. high; five tier with bottom shelf up 14 in. clear above floor

Description - Unit shall be all standard construction with Super Adjustable Chrome plated wire shelves and tubular steel uprights with capped tops, adjustable feet, and 1 in. shelf height adjustment capability with Corner Release System. Each unit shall include four legs.

Item 7

DUNNAGE RACKS

Quantity - 3

Make - New Age 2004\*C166 or equal by Kelamx or Channel

Size - 48 in. by 24 in. by 12 in. high

Description - Dunnage platforms shall be all standard construction with 1-1/2 in. by 1-3/4 in. by .070 in. thick wall extruded Type 6063-T5 aluminum tubing with four horizontal tubes and four legs welded together, and each unit capable of supporting 3,000 pounds.

Item 8

WORK TABLE, MOBILE

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 48 in. by 30 in. by 36 in. high

Construction - 14 gauge stainless steel top over angle frame with edges formed in turndown and mounted on four legs with gussets, 5 in. diameter swivel casters, two with brakes, and full undershelf.

Item 9

HAND SINKS WITH FAUCETS AND SIDE SPLASHES

Quantity - 4

Make - Advance 7-PS-70-CM\*C166 or equal by Krowne or Eagle

Description - Units shall be all standard stainless steel construction with mounting bracket. Mount on wall with rim at 36 in. above floor

Accessories - Provide with a splash mounted faucet set with wrist handles (Item 9A), 3 in. flat strainer type (non-basket, non-lever) open type waste, chrome plated tailpiece, "P" trap and clean-out cap. Provided end splashes welded to each side.

Item 9A

FAUCETS

Quantity - 4

Make - T&S Brass B-0330-04 modified or Fisher 1953 modified or Encore

Description - Units shall be all standard construction with mixing body, 8 in. center inlets, and wrist blade handles. Modified unit shall be provided with a B-0413 swivel to rigid adapter, and a 119X gooseneck with B-0199-02-F10, 1.0 gallons per minute aerator tip in lieu of the standard.

Item 10

WASTE CANS

Quantity - 8

No work in this Section. Units provided by Owner.

Item 11

MOBILE SHEET PAN RACKS

Quantity - 4

Make - New Age 1331\*C166 or equal by Kelmax or Piper

Size - 20-1/2 in. by 26 in. by 69 in. high

Capacity - Twenty 18 in. by 26 in. pans on 3 in. centers

Description - Rack shall be fabricated of welded extruded aluminum 1 in. by 1 in. by .070 in. tubular uprights and framing, and 1-1/4 in. by 1-5/8 in. by .100 in. angle pan slides with corners chamfered and deburred. Gussets of 1-1/2 in. by 1-1/2 in. by 5/8 in. angle aluminum shall be welded to the bottom inside angles where horizontal bracing meets vertical uprights. Mount on platform type, 5 in. polyurethane tired swivel casters.

Item 12

PREP TABLE WITH SINKS

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - L-shaped per plan, 7 ft.-10 in. plus 64 in. return by 30 in. by 36 in. high to work surface plus 10 in. high splash at walls; an 18 in. by 20 in. by 10 in. deep integral sink.

Construction - 14 gauge stainless steel top, splash and sink basin, angle reinforced, ten legs with gussets, adjustable feet, partial undershelf, and four lengths of crossrails. Rear shall be formed in tall splash; front and ends in marine edge. Secure 3 in. off face of wall with brackets. Weld disposer cone integral with the counter top and provide a rigid stainless steel bracket for the mounting of the disposer control switch assembly.

Accessories - Provide a splash mounted faucet set, a 2 in. lever waste outlet and holes for pre-rinse faucet item 13.

Item 13

PRE-RINSE FAUCET

Make - T&S Brass B-0133-BC\*C166 or equal by Fisher or Encore

Description - Pre-rinse sprayer shall be all standard construction with splash mounted mixing body, tubing riser, spring action gooseneck, wall bracket, and a B-107-J water saver pre-rinse spray.

Item 14

DISPOSER WITH CONTROL PANEL

Make - Salvajor 200-CA-18-ARSS-3-LD\*C166 or equal by Red Goat or In-Sink-Erator

Power - 6.6 amps - 208/60/3

Water consumption - 3-8 gpm, full load condition, 10 minute automatic shutoff; or 1 gpm, no-load condition

Description - Unit shall have an 8 in. diameter precision ground nickel-chrome carbide shredder, 58-60 Rockwell "C" hardness with a hardened carbide rotor, 52-58 Rockwell "C" driven by a water cooled electric motor with an air seal, automatic reversing feature, and built-in thermal overload protection. Housing shall be of an aluminum alloy with a polished exterior finish and an adjustable leg support. All bearings shall be permanently lubricated type. Feed throat to be 6-1/2 in. diameter.

Item 14 continued

Accessories - Provide 15 in. diameter cone for welding into counter, equipped with water inlet nozzle, grinding chamber inlet, removable rubber scrapping ring, vacuum breaker, flow control, electric solenoid valve, and an ARSS automatic reversing switch with safety line disconnect in a stainless steel NEMA 4 enclosure. Mount the control panel on a stainless steel mounting bracket securely fastened to the bottom of table 12.

Item 15

WALL SHELF

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 60 in. by 10 in. mounted 54 in. above floor

Construction - Wall shelf shall be fabricated of 16 gauge stainless steel with back and ends raised 1-1/2 in., front edges of ends angled back, all corners broken, and front turned down 1-1/2 in., and in 1/2 in. at 45°. Shelf corners shall be welded, ground and polished. Mount shelf 1 in. off face of wall with suitable fasteners on 14 gauge stainless steel flag brackets, 48 in. on center maximum. Flag brackets shall have a web angle of 30° measured from horizontal.

Item 16

INGREDIENT BINS

Quantity - 3

Make - Rubbermaid 3600\*C166 or equal by Cambro or Baker's Mark

Size - 13-1/8 in., by 29-1/4 in., by 28 in. high

Capacity - 2.75 cubic feet, 21 gallons

Description - Bin shall be all standard construction with structural foam body, mounted on 3 in. diameter casters and provided with polycarbonate hinged/slide off lid.

Item 17

SIXTY-QUART MIXER

Make - Hobart HL-600\*C166 or equal by Globe or Varimixer

Power - 10 amps (2.7 HP)- 208/60/3

Description - Mixer frame and body shall be fabricated of welded heavy gauge steel finished in gray baked enamel, and provided with a stainless steel splash guard at the column, stainless steel bowl guard with electrical interlock, single point bowl installation with swing-out bowl support, motor driven power bowl lift and an attachment hub with No. 12 taper. Mixer shall be driven by a switched reluctance, ball bearing motor, ventilated within the mixer body. Motor starter shall be magnetic type with thermal overload protection mounted within the mixer. Transmission shall be poly-V belt driven and geared down with constant mesh heat treated and hardened gears on similar shafts be mounted in ball bearings with recirculating oil and grease to all gears and shafts. Mixing action shall be planetary and shall have speeds of 36 (stir), 67, 120, 200, and 353 RPM as selected by an external lever. Speeds to be selectable on-the-fly and include a soft start and stir speed while lifting the bowl into place and controlled with a 50 minute timer with automatic time recall

Accessories - Provide mixer with a sixty-quart stainless steel bowl, flat beater, dough hook, and a whip with stainless steel wires. Provide the following optional accessories: self-centering polished aluminum four wheel sixty-quart bowl truck, forty-quart stainless steel bowl and adapter, forty-quart beater, whip and dough hook, vegetable slicer with adjustable slicer plate, plate holder and a 3/16 in. shredder plate, and grater plate.

Item 18

MOBILE SHELVING, FOUR-TIER

Quantity - 2

Make - MetroMax Q\*C166 or equal by Eagle or Cambro

Size - 36 in. by 21 in., all 69 in. high on casters; four tier

Description - Shelving unit shall be all standard construction and shall consist of four shelves with removable injection molded polypropylene mats with antimicrobial product protection, supported on epoxy coated steel shelf frames and similar uprights with capped tops, and mounted on 5 in. diameter polyurethane tired swivel casters with donut bumpers.

Accessories - Provide with polymer posts in lieu of standard.

Item 19

THREE COMPARTMENT SINK

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 10 ft.-0 in. by 30 in. by 34 in. high plus 10 in. high splash at wall; 3 in. high raised open roll on three sides; three 21 in. by 27 in. by 12 in. deep integral sink basins

Construction - 14 gauge stainless steel drainboards, basins and splash, stainless steel channel reinforced, mounted on eight legs with gussets, adjustable feet, seven lengths of crossrail, and secured 3 in. off face of wall.

Accessories - Two splash mounted faucet sets, three 2 in. lever waste outlets.

Item 20

WALL MOUNTED UTENSIL RACK

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 72 in. by 15 in. off face of wall with rails mounted 78 in. and 90 in. above floor

Construction - Rack shall be two rail type, fabricated of 2 in. by 1/4 in. stainless steel bar stock throughout, fully welded, single upper bar extended 15 in. from wall; single lower bar, 6 in. from wall. Two end brackets to be secured to wall with suitable fasteners.

Accessories - Provide unit with twenty-four stainless steel wire double pot hooks.

Item 21

PREP TABLE WITH SINKS AND OVERSHELF

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 9 ft. 3 in. by 30 in. by 36 in. high; 9 ft. 3 in. by 20 in. overshelf at 54 in. above floor; two 18 in. by 20 in. by 10 in. deep integral sink basins

Construction - 14 gauge stainless steel top and basin over angle frame with marine edge, and mounted on six legs with gussets and adjustable feet, flanged feet at corners for securing to floor, partial under-shelf, and two crossrails. Overshelf shall be 16 gauge stainless steel, constructed similar to a wall shelf, channel reinforced, and welded to three extended rear table legs with support webs. Extended legs shall pass through tight swedged openings in the top.

Accessories - Drawer assembly, deck mounted faucet set and two 2" lever waste outlets. Provide two rigid stainless steel brackets for mounting of electric outlets in setback positions complete with work boxes, GFI receptacles, and stainless steel cover plates.



Item 22

WORK TABLE

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 9 ft.-3 in. by 30 in. by 36 in. high

Construction - 14 gauge stainless steel top over angle frame with edges formed in turndown and mounted on six legs with gussets, adjustable feet partial undershelf and two sections of crossrails.

Accessories - Drawer assembly. Provide two rigid stainless-steel brackets for mounting of an electric outlets in a setback position complete with work box, GFI receptacle and stainless steel cover plate.

Item 23

CAN OPENER, MANUAL

Make - Edlund S-11\*C166 or equal by Vollrath or Nemco

Description - Opener shall be all standard construction with cast stainless steel body, base and blade. Install on table per plan.

Item 24

FOOD PROCESSOR

Make - Robot Coupe R301 Ultra\*C166 or equal by Berkel or Hobart

Power - 12 amps - 120/60/1 - cord and plug

Description - Combination food cutter shall be all standard construction with 1-1/2 HP direct drive fan cooled capacitor start motor with brake, magnetic interlocks, stainless steel cutter bowl with handle and see-thru lid, continuous feed top unit with attached large feed pusher and two standard discs.

Item 25

CEILING MOUNTED UTENSIL RACK

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 6 ft.-0 in. by 24 in. mounted up 6 ft.-6 in. and 7 ft.-6 in. above floor

Construction - Rack shall be fabricated of 1/4 in. by 2 in. stainless steel bar stock throughout, fully welded construction, consisting of a two bar upper rail with full radiused ends, a single lower rail, reinforcing straps, and suspended from the overhead structure on four hangers. Provide unit with forty Component Hardware J77-4401 stainless steel double pot hooks.

Item 26

Spare number

Item 27

Spare number

Item 28

Spare number

Item 29

WORK TABLE

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 72 in. by 30 in. by 36 in. high, plus 6" backsplash

Construction - 14 gauge stainless steel top over channel frame, three edges formed in turn down, rear formed in a short splash. Mounted on six legs with gussets, undershelf, and 5 in. diameter casters, two with brakes.

Provide two rigid stainless steel brackets for mounting of electric outlets in setback positions complete with work boxes, GFI receptacles, and stainless steel cover plates. Provide a drawer assembly.

Item 30

FOOD CUTTER

Make - Hobart 84186\*C166 or equal

Power - 12 amps (1 HP) - 120/60/1 - cord and plug

Description - Cutter shall be all standard construction with one-piece burnished aluminum housing, plated steel bottom cover, No. 12 attachment hub with clutch drive operating at 256 RPM, 18 in. inside diameter removable stainless steel bowl operating at 20 RPM, two stainless steel knives rotating on hub assembly at 1725 RPM, hinged aluminum cover with safety switches, and mechanically interlocked manual switch. Motor shall be capacitor start, induction run type with ball bearings. Mount on 3 in. high legs.

Item 31

Spare number

Item 32

SLICER

Make - Hobart HS9 or equal by Bizerba or Globe

Power - 5 amps - 1/2 HP - 120/60/1 - cord and plug

Description - Slicer shall be all standard construction, automatic type with anodized cast aluminum housing and base, removable 13 in. diameter 304L stainless steel knife with removable ring guard cover, totally enclosed, permanently lubricated PSC knife motor, with poly-v belt drive, zero knife exposure, linear automatic carriage drive system with speeds of 28, 38, 48 and 58 strokes per minute, manual assist mode, and provided with thermoplastic coated steel feed grip, glass bead finished gauge plate and knife cover, tilting carriage, water protected push-button switches, top mounted and removable knife sharpener with two borazon stones, adjustable gauge plate from in.0 in. to 1 in., lift lever system and rubber feet. Unit to be provided with mechanical and electrical interlocks to include home position start, close gauge plate to stop, carriage will not tilt away or remove if gauge plate is not closed, locked gauge plate when carriage is removed, no-volt release, and 30 second automatic shut-off without carriage motion. Slicer shall be NSF 8 compliant.

Accessories - Provide unit with knife removal tool

Item 33

UTILITY DISTRIBUTION SYSTEM

Make - AquaMatic AM-UDI or equal by Gaylord or Halton

Size - 13 ft.-0 in. by 12 in. by 6 ft.-8 in. high

Power - 50 amps circuit - 120/208/60/3

Rating - 2 in. gas manifold at 911 MBTU/Hour (1,700 MBTU/Hour capacity)

Water connections - 1 in. hot and cold unfiltered; 1 in. filtered water from item 39. Provide connections to each piece of equipment as required.

Description - Utility distribution system shall be all standard construction of 300 series stainless steel with primary service riser, secondary riser and a horizontal raceway with separate compartments for plumbing and electrical services. Raceway plumbing compartment shall include gas and water piping, service drops with shut-off valves, Dormont quick disconnect gas hoses and flexible water connectors. Raceway electrical compartment shall include wiring to appliance connectors along and individual appliance electrical connectors with weatherproof covers. Primary service riser shall include load center with individual service breakers, main shunt trip breaker with reset handle, emergency kill switch, status indicators lights, DCV control interface, gas delay reset, and GFI convenience outlet. Secondary riser shall include a pre-plumbed 2 in. electric gas valve, manual shut-off valves for gas and water supply, and GFI convenience outlet. Mount DCV interface screen in main service riser 54 in. above the finished floor. Provide LF7 - Watts Dual-Check Backflow Preventer.

Accessories - Provide Dormont 48 in. long gas disconnect hoses for items 38 and 40. Raiser towers to accommodate three CB30K water filter systems provided by Vulcan for the combi-ovens.

Item 34

RIGHT EXHAUST VENTILIATOR

Make - AquaMatic AM-ND-2 or equal by Gaylord or Halton

Size - 12 ft.-0 in. plus 12 in. utility cabinet on the right end by 60 in. by 24 in. high plus 4 in. high collars, mounted up 6 ft.-8 in. above finished floor; flat bottom

Power - 0.5 KW - 120/60/1 to lights; remote switch mounted on item 33 by KEC.

Exhaust - 2,700 CFM exhaust through a 16 in. diameter collar at 1.008 in. static pressure. Blower, and ductwork provided and installed by Ventilation Contractor.

Description - Ventilator shall be of all standard construction, built of not less than 18 gauge 304 stainless steel throughout with welded joints and seams in accordance with NFPA-96, with reinforced front bottom edges with integral front baffle, double wall insulated fronts, and NSF Listed. Units shall have grease collection troughs, storage containers, and hanger brackets. Provide with 430 stainless steel Captrate Grease-Stop Solo Filter UL classified S-baffle extractors that shall remove at least 75% of grease particles five microns in size, and 90% of grease particles seven microns in size and larger, with a corresponding pressure drop not to exceed 1.0 inches of water gauge. Provide all materials necessary for the hanging of the ventilator.

Accessories - Provide unit with five UL Listed LED light fixtures with factory prewired and left ready for final connection by the Electrical Contractor. Provide closure trim per detail to three sides. Provide one filter removal tool

Item 35

LEFT EXHAUST VENTILIATOR

Make - AquaMatic AM-ND-2 or equal by Gaylord or Halton

Size - 13 ft.-0 in. by 60 in. by 24 in. high plus 4 in. high collars, mounted up 6 ft.-8 in. above finished floor;  
flat bottom

Power - 0.5 KW - 120/60/1 to lights; remote switch mounted on item 33 by KEC.

Exhaust - 2,600 CFM exhaust through two 12 in. diameter collar at 0.591 in. static pressure. Blower, and  
ductwork provided and installed by Ventilation Contractor.

See item 34 for description and installation details.

Item 36A

FAN MANAGEMENT SYSTEM

Make - CaptiveAire DCV-1111 or equal by Gaylord or Halton

Power - 20 amps circuit - 120/60/1 to logic controller

Scope - Furnish and install complete exhaust and make-up air control system for the exhaust canopies in  
accordance with the plans and Manufacturers shop drawings. The system shall include programma-  
ble logic controller (PLC), variable frequency drives (VFD) shall be provided by the mechanical con-  
tractor, stainless steel control enclosure, exhaust duct temperature sensors, room temperature sensor,  
digital screen interface with cable, all specified accessories, and those components required to provide  
complete and satisfactory systems in accordance with accepted HVAC practice. System shall control  
Items 34 and 35. Mount LCD screen control in the Utility distribution system raiser per plan plus 54 in.  
above floor. Variable frequency drives (VFD) shall be provided by CaptiveAire. Mount system pro-  
cessor in the cabinet mounted on the right end of exhaust ventilator 34.

Important: The installation work shall be performed by a fully qualified contractor employing a certified  
mechanic fully trained in the installation of the EMSplus hood system. Submittal shall list the installing  
company and the qualified system installer. Provide wiring diagrams and guidance to related trades  
to achieve correct operation of the system. Provide BacNet monitoring system.

Item 36B

FAN MANAGEMENT SYSTEM CONTROL INTERFACE

Specified as part of item 36A.

Item 36C

FAN MANAGEMENT SYSTEM ROOM AIR SENSOR

Specified as part of item 36A.

Item 37

FIRE SUPPRESSION SYSTEM

Make - Ansul R-102 or equal by Kidde or Pyro-Chem

Power - 20 amps circuit - 120/60/1

Design - Provide an automatic liquid fire suppressant system sized to meet all local codes, UL 300 and NFPA Codes. System shall provide surface protection for cooking equipment, hood and the exhaust duct work, if required. Tanks shall be mounted in the hood manufacturer provided utility cabinet and piping shall run hidden wherever possible. All pipes and fittings used to convey the chemical shall be scale free steel, 40 weight. Exposed piping located within the ventilator shall be stainless steel and limited to vertical drops only. Horizontal piping shall be run over the ventilator's top. Nozzles shall be swivel type with metal caps. Detection shall be fusible links rated per codes, and system shall rely on no outside source of power. The system shall be provided with a control box with indicator to indicate system status. Control head shall also include integral micro switch offering "normally open" and "normally closed" terminals for use by the Electrical Contractor for the shut-down of equipment and the sounding of alarms, etc. Suppressant tanks shall be stainless steel. Provide a properly sized electrically operated gas shut-off valve (up to 3 in. diameter) for mounting by the Plumber at a point in the gas supply that will shut off fuel to all gas fired equipment. The electric gas valve must be installed horizontally with no more than a 5 degree lean from the horizontal plane. Provide a remote manual gas valve reset relay switch, with indicator light, for installation on wall by Electrical Contractor in a location accessible to Operator. Provide and install a remote pull station per codes, complete with cables, conduit and pulleys. Coordinate installation of remote pull station with General Contractor to provide a flush mounted pull box with cable conduit concealed within walls. Provide system with class-K extinguisher as required. Delete standard gas valve and reset relay switch. Gas valve and reset switch shall be provided as part of Item 33.

Workmanship - Exposed stainless steel fittings and piping shall be assembled with special care to avoid marring or damaging the surfaces. Any pieces showing marks shall be removed and replaced with new materials. Chrome sleeves are not acceptable.

Test - Perform a puff test on the completed system and obtain the written approval of the local Fire Inspector.

Item 38

COMBI-OVENS, DOUBLE-STACKED

Quantity - 3

Make - Vulcan ABC7G-NATP\*C166 or equal by Blodgett or Alto Shaam

Size - 42-1/4 in. by 43-1/2 in. by 75 in. high

Power - (2) 15 amps circuit - 120/60/1 - NEMA 5-15P cord and plugs

Rating - (2) 3/4 in. gas inlet at 80,000 BTU per hour

Water - ≤ 1.5 gal/hour/pan including condensate cooling water

Description - Combination steamer/ovens shall be all standard construction with stainless steel exterior and interior, aluminized steel bottom and rear panels, dual pane tempered glass panel in left hand hinged doors, easily replaced door gaskets, self draining condensate door trough, seven stainless steel wire racks per deck, water pressure regulators, and mounted on 6 in. high casters. Each deck shall have a three function selector knobs, solid state rotary dial thermostat with 150° to 500° F range, automatic shut down with audible buzzer requiring manual shut-off, electronic ignition, steam on demand generator and stacking kit. Provide unit with factory authorized start-up service and one year warranty.

Accessories - Provide K-12 extended warranty, two HOSEWTR-3/4BBV hose kits per oven and three CB30K water filter systems to be installed inside the raiser towers or the utility distribution systems (item 33)

Item 39  
Spare number

Item 40  
RANGE WITH OVEN

Make - Vulcan 24S-4BN\*C166 or equal by Garland or Southbend  
Size - 24 in. by 32 in. by 37 in. high to work surface; 47 in. high overall  
Rating - 3/4 in. gas inlet at 143,000 BTU/hour

Description - Range shall be all standard construction with fully welded aluminized steel frame, four 30,000 BTU/hour open burners with one pilot lights for every two burners, level cast iron removable grates, stainless steel front, sides, and back riser, 20-1/4 in. by 26 in. by 14-1/2 in. high thermostatically controlled 23,000 BTU/hour oven with two racks and safety pilot, full width pull-out crumb tray below burners, and provided with pressure regulator.

Accessories - Provide with Flame Safety device with manual spark ignition for all open top burners, and oven pilot. Provide a 10 in. high stainless steel flue riser. Mount unit on 5 in. diameter heavy duty swivel casters, two with brakes and provide assembly with a 48 in. long by 3/4 in. line size Dormont 1675 KIT2S plastic covered hose assembly with full port gas ball valve, two Supr-Swivels, brass disconnect, 90° street elbow and restraining cable. Mount the nipple on the rear of the range, and the hose assembly with disconnect device connected to the building supply line.

Item 41 Through 49  
Spare numbers

Item 50  
FORTY-GALLON TILT BRAISING PANS

Quantity - 2  
Make - Groen BPP-40G\*C166 or equal by Vulcan or Cleveland  
Size - 35-3/4 in. by 28-1/4 in. by 10 in. deep inside pan dimensions  
Power - 5 amps - 120/60/1  
Rating - 1/2 in. gas inlet at 144,000 BTU/Hour

Description - Unit shall be all standard stainless steel construction, with tubular support frame, adjustable feet, flanged feet at rear, electric motorized crank tilt mechanism with manual override and three position control switch, torsion bar counterbalanced hinged cover with vent, and a 40 gallon pan. The cooking surface shall be constructed with 5/8 in. thick stainless steel and bonded clad plate with integral heat transfer fins, and a multi-tube gas burner. Pan shall be polished to a 100 emery grit finish and provided with electronic ignition, 7° off level cooking capable, power on switch and indicator light, heat on indicating light, thermostatically controlled and provided with a high limit cut-off.

Accessories - Provide unit with a faucet mounting bracket with a double pantry water fill faucet and aerator tip, BPC pan carrier, and a 2 in. tangent draw-off located at the left front corner complete with strainer.

Item 51

FLOOR TROUGH WITH GRATE

Quantity - 2

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 36 in. by 20 in. by 4 in. deep inside dimensions; 39 in. by 23 in. overall

Construction - Pan shall be fabricated of 14 gauge stainless steel, all welded construction, pitched to a 4 in. ID drain fitting with stainless steel removable, perforated basket and perforated dome strainer.

Long sides shall be fitted with integral grate support ledges. Provide a model CGF molded fiberglass grate (Chemgrate) with 1 in. by 4 in. pattern, 3/4 in. clear slots and ends finished in accordance with manufacturer's instructions. Grate shall be cut in a manner that closed.

Item 52

Spare number

Item 53

Spare number

Item 54

WORK TABLE, MOBILE

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 60 in. by 30 in. by 36 in. high

Construction - 14 gauge stainless steel top over angle frame with edges formed in turndown and mounted on four legs with gussets, 5 in. diameter swivel casters, two with brakes, and full undershelf.

Accessories - Provide a drawer assembly.

Item 55

Spare number

Item 56

REFRIGERATOR, PASS-THRU

Quantity - 2

Make - Continental D2RN-SA-PT-HD\*C166 or equal by Victory or Traulsen

Power - 6.9 amps - 120/60/1 - NEMA 5-15P cord and plug

Size - 52 in. by 38-3/4 in. by 83-1/4 in. high on 6 in. legs

Doors - Half height, center opening both faces

Capacity - 50 cubic feet

Description - Refrigerator shall be all standard construction with stainless steel exterior front, back and ends of welded construction to include door corners, and aluminum interior. Unit shall include 3 in. thick polyurethane foam insulation, automatic interior lighting, hot gas condensate evaporator, self-closing cam lift door hinges with 120° stay open feature, plasticized fin coil and fan blades, stainless steel breaker strips, exterior reading thermometer and mounted on stainless steel adjustable legs.

Refrigeration system shall be self-contained, with thermostatic expansion valve, capable of maintaining +38 to +40°F temperatures, with automatic defrost and operating on Refrigerant R-290.

Accessories - Provide unit with optional five year compressor warranty, two adjustable chrome plated steel wire shelves in the bottom half and 18 pair of Type A stainless steel bottom support angle type pan slides spaced 3 in. on center in the top half.

Item 57

HEATED CABINET, PASS-THRU

Quantity - 2

Make - Continental DL1WE-SA-PT\*C166 or equal by Victory or Traulsen

Size - 28-1/2 in. by 38-3/4 in. by 83-3/4 in. on 6 in. high legs

Power - 7.2 amps - 208/60/1

Doors - Hinged on the right per plan

Capacity - 22 cubic feet

Description - Hot food cabinet shall be all standard construction with stainless steel exterior front, back, ends, and aluminum interior. 3 in. of non-CFC polyurethane insulation throughout. Unit shall include automatic interior lighting, self-closing cam lift door hinges with 120° stay open feature, external digital thermometer and stainless steel breaker strips. Heating system shall consist of fin strip heaters with natural convection and microprocessor control. Top of cabinet shall be provided with a vent for humidity control. Mounted on stainless steel adjustable legs.

Accessories - Provide unit with welded corners of exterior door pans and rack guides.

Item 58

UTILITY CARTS

Quantity - 3

Make - Lakeside 521 or equal by Kelmax or Channel

Size - 32-5/8 in. by 19-3/8 in. by 34-1/2 in.

Description - Cart shall be all standard NSF construction, stainless steel throughout, with top and bottom shelves supported by an angle frame, and mounted on two 8 in. fixed and two 5 in. swivel casters.

Capacity of cart to be 650 pounds.

Item 59

MOBILE SHELVING, FOUR-TIER

Quantity - 16

Make - MetroMax Q\*C166 or equal by Eagle or Cambro

Size - (6) 48 in. by 21 in. and (10) 36 in. by 21 in., all 69 in. high on casters; four tier

Description - Shelving unit shall be all standard construction and shall consist of four shelves with removable injection molded polypropylene mats with antimicrobial product protection, supported on epoxy coated steel shelf frames and similar uprights with capped tops, and mounted on 5 in. diameter polyurethane tired swivel casters with donut bumpers.

Accessories - Provide with polymer posts in lieu of standard.

Item 60

MOBILE DUNNAGE RACKS

Quantity - 8

Make - New Age 1203-SW and 1202-SW\*C166 or equal by Kelmax or Channel

Size - (4) 49-3/4 in. by 20 in. and (4) 37-3/4 in. by 20 in.

Description - Dunnage platforms shall be all standard construction with 1-1/2 in. by 1-3/4 in. by .070 in. thick wall extruded Type 6063-T5 aluminum tubing with four horizontal tubes and plate mounted casters with unit capable of supporting 1200 pounds.

Accessories - Provide eight total 1208 handles. All casters shall swivel.



Item 61

**WALK-IN COOLER AND FREEZER WITH RECESSED FLOOR**

Make - American Panel, Bally, Thermalrite or Thermo-Kool

Size (Cooler) - 15 ft.-8-1/2 in. by 9 ft.-10 in. by 7 ft.-10 in. high minimum inside dimensions; 7 ft.-8 in. high after finished floor is installed by the General Contractor.

Size (Freezer) - 18 ft.-8-1/2 in. by 9 ft.-11 in. by 7 ft.-10 in. high minimum inside dimensions; 7 ft.-8 in. high after finished floor is installed by the General Contractor.

Power - 1.8 KW - 120/60/1 to light fixtures, temperature monitor/alarm, and door defrost heater strip

Installation - The walk-in refrigerated room shall be installed in a 7 in. deep ID recess (below finished floor). Recess depth allows 1 in. for use of leveling sand; 4 in. for the insulated floor panels; 2 in. for finished floor and setting bed that shall be carried in from the adjacent room and level to same. The finished floor and setting bed shall be furnished and installed by the General Contractor, and shall have coved joints at all walls, turned up a minimum of 4 in. inside and out. The unit shall be set level on a bed of clean, dry mason's sand. Shims are not acceptable for leveling material.

Construction - All standard construction per the manufacturer, modified to meet the specific following points:

- Walls to be 4 in. thick with CFC free urethane foam insulation, UL Class 1 rated and Factory Mutual listed meeting FM Approvals Standard 4880.
- Cam type locking devices
- 34 in. by 76 in. minimum door clearance
- Polished hardware (hinges and latch to match)
- Three hinges on doors (to include one Kason 1248 spring assist hinge per door)
- Leveraged pull handle (mechanical advantage type, Kason 1236 or equal)
- Quarter turn inside safety release lever handle mechanism (not screw type)
- Prewired door sections with heater wires and light fixtures and switches
- Kason 1806 LED light fixtures or Kason 1808 LED light fixtures
- Dial type thermometers at doors
- Model IC+ (with dry contacts) or Modularm 75LC temperature and HACCP monitoring system at doors. Cooler and freezer alarms to interconnect with access control system for alert monitoring. Modularm to provide each system with a pair of 22 gauge low voltage wires. Wires shall be installed by the Controls Contractor. Wires shall run from the dry contacts to the access control panel. Kitchen Equipment Contractor to verify length prior to purchasing. To avoid false triggering, provide a shielded two-conductor cable with the shield connected to the receiving equipment.
- NSF construction throughout with exception of buried floor panels
- Interior and exterior faces of doors and exposed exterior walls shall be provided with aluminum diamond tread plate protective material to a height of 48 in. above finished floor. Hold diamond plating up 6 in. from the finish floor to accommodate the coved base.

Minimum materials - Interior and exterior wall surfaces shall be clad with .038 in. pebble finished aluminum. The ceiling shall be finished in white polyester over 24-gauge galvanized steel. Interior floor shall be 14 gauge galvanized steel.

Accessories - Freezer shall be provided with an electrically heated pressure relief port. Each door shall be provided with a heated vision panel, 14-1/2 in. by 23 in. constructed of three panels of tempered unbreakable glass, electrically heated, with sealed air spaces between. Provide matching trim strips and closure panels to adjoining surfaces, fabricated per details, made of largest pieces available to minimize number of joints, and installed in accordance with NSF Brochure 770202, Installation Manual for Walk-in Refrigerators and Freezers. Provide six total extra Kason 1808 LED light fixtures for mounting in the rooms and deliver to Electrical Contractor for field installation.

Guarantee - The walk-in refrigerated room panels shall be guaranteed for a period of ten (10) years from the date of approved installation for defects in materials and workmanship when subjected to normal use and service; remainder of rooms for one year.

Item 62A

COOLER OUTDOOR AIR-COOLED CONDENSING UNIT

Make - Bally, Keeprite, Trenton, Heatcraft, Bohn, Larkin, Chandler, or Climate Control

Scope - Furnish and install complete refrigeration systems for the walk-in refrigerated rooms in accordance with the plans. The systems shall include condensing units, evaporator coils, piping, all specified accessories, and those components required to provide complete and satisfactory systems in accordance with accepted refrigeration practice.

Important: The installation work shall be performed by a fully qualified refrigeration contractor employing a certified mechanic fully trained in the installation of commercial refrigeration systems. Submittal shall list the installing company and the qualified system installer.

Piping - Furnish and install the interconnecting piping between the condensing units and their respective unit coolers. Piping shall be installed in a neat and workmanlike manner with adjustable hangers spaced at no more than ten foot intervals on horizontal runs; six foot intervals, vertical runs.

Line sizes shall be in accordance with ASHRAE standards and best refrigeration practice to assure proper feed to evaporator, avoid excessive pressure drop, and prevent excessive amounts of lubricating oil from being trapped in any part of the system. Line sizing shall be such that it will protect the compressor from loss of lubrication at all times, prevent liquid refrigerant from entering the compressor during operating or idle time, and maintain a clean and dry system.

Refrigeration piping shall be Type L, ACR grade, hard drawn seamless copper tubing, wrought type copper fittings, and silver soldered joints. Precharged lines are not acceptable.

Furnish and install sleeves for refrigerant and evaporator drain piping wherever piping passes through a wall or ceiling. Sleeves shall be non-conductive gray plastic tubing, with interior dimension sized at least 1/4 in. larger than piping, and shall be neatly packed with brine putty after installation.

Furnish and install condensate drain piping from the unit cooler to an open drain. Piping shall consist of not less than 7/8 in. Type L copper tubing, supported 36 in. on center maximum, in such a way that there will be 1 in. clearance between the wall and the tubing. Provide a union or slip fitting at the connection to the evaporator drain pan to allow easy disassembly for service and cleaning. Drain piping shall be pitched 4 in. to the foot and carried through the wall of the refrigerated area. It shall be trapped to prevent entry of warm air and insects to the refrigerated rooms and discharged to a floor drain with the code required air gap. The exposed drain piping shall be spray painted.

Provide an electric drainline heater tape in the freezer, with a length equal to five wraps per foot of length of the drainline located within the freezer compartment. Wrap and secure in accordance with manufacturer's recommendations.

Provide chrome plated escutcheon plates at all exposed points where piping penetrates the wall or ceilings.

Insulation - Suction lines for refrigerated rooms having a temperature above freezing shall be covered with 3/4 in. wall thickness closed cell HT Armaflex insulation with ultra violet radiation protection.

Suction lines for refrigerated rooms having a temperature below freezing shall be covered with 1 in. wall thickness closed cell HT Armaflex insulation with ultra violet radiation protection.

The insulation shall be applied to these lines in accordance with manufacturer's recommendations, and as they are being installed so that insulation will not be split. All joints shall be completely sealed with overlapping, cemented material to prevent the formation of frost on the lines.

Controls - Each evaporator shall be provided with mounted electronic controller with digital display. The time clock and heater contactor shall be removed from the condensing unit. No control wiring will be required from evaporator to the condensing unit.

Refrigerant Testing - The entire system shall be pressure and leak tested at no less than 100 PSIG, cleaned and dehydrated by maintaining a vacuum of 500 microns or lower for a period of five hours. The required operating charge of refrigerant and oil, if necessary, shall be added and the entire system tested for performance. Each system shall be clearly marked as to the type refrigerant required.

Guarantee - The equipment shall be guaranteed to maintain the specified temperatures. All mechanical refrigeration equipment shall be mechanically guaranteed for a period of one year after date of acceptance by the Owner. The emergency service shall be provided free of charge, whenever necessary on a 24 hour, seven day-per-week basis during the guarantee period.

Any leaks that occur during the first year of operation after acceptance by the Owner, shall be repaired and the necessary refrigerant added at no expense to the Owner.

The year's service shall be provided by the installing company, and under no circumstances will the service policy be sublet to another refrigeration contractor. The name of the installer/service agency for the guarantee period shall be located at a prominent place on the condensing units.

The condensing units shall be provided with an additional four year parts warranty to commence upon the completion of the aforementioned guarantee, bringing the total parts warranty to five years.

Condensing Units - The condensing units shall consist of an EC energy saving motor with variable speed controller, compressor, refrigerant condenser, liquid receiver, compressor service valves, and a dual high-low pressure control.

The condensing units shall be outdoor type. The compressor shall be serviceable semi-hermetic or scroll type per schedule, and fitted with anti-corrosion coated aluminum fin or micro-channel condenser, suction service valve, discharge service valve, compressor contactor, high and low pressure controls, receiver with fusible plug, liquid shut-off valve and charging port, mounted non-fused disconnect switch, waterproof electrical control box, discharge line vibration eliminator, weather resistant enameled galvanized steel cabinet, access guard, liquid line assembly, suction line filter and vibration eliminator, crankcase heater, and 1-1/2 in. high raised steel base.

Mount on roof per architectural drawings with structural supports, roof penetrations and weatherproofing provided by the General Contractor. Mount with clearance above roof deck per Manufacturers recommendation.

Evaporator Coils - Each evaporator shall be provided with mounted electronic controller with digital display, thermostatic expansion valve, and solenoid valve. The time clock and heater contactor shall be removed from the condensing unit. No control wiring will be required from evaporator to the condensing unit.

The freezer shall be provided with an automatic electric defrost system consisting of one evaporator coil as indicated in the schedule. Evaporator shall be low profile type six fins per inch complete with EC energy saving fan motors. Coil shall be NSF and UL Listed.

The cooler shall be provided with one evaporator coil as indicated in the schedule. Evaporator shall be low profile type six fins per inch complete with EC energy saving fan motors. Coil shall be NSF and UL Listed.

Furnish and install 1/4 in. minimum diameter stainless steel threaded mounting rods for the hanging of the evaporator coils, with stainless steel washers and nuts on the interior ends, and reinforcing angle at the exterior top of the room. Plated steel running thread is not acceptable.

Refrigeration Equipment Schedule

Cooler	Room Temp: +35°F	TD:		10°F		
Condensing unit	Amps	Ref	BTU/hour	Evap Temp	Cond Temp	
BQZA008H8-HT3A	6.9 - 208/3	404a	9,368	+26.5°F	+95°F	
Evaporator coil	BTU/hour	CFM	Fan amps	Defrost amps	Defrost type	
BLP209MA-S1B-ECM	8,600	2,020	2.0 - 120/1	NA	Timed ambient	

  

Freezer	Room Temp: -10°F	TD:		10°F		
Condensing unit	Amps	Ref	BTU/hour	Evap Temp	Cond Temp	
BQZA030L8-HT3A	11.6 - 208/3	404a	10,609	+26.5°F	+95°F	
Evaporator coil	BTU/hour	CFM	Fan amps	Defrost amps	Defrost type	
BLP211LE-S2B-ECM	11,000	1,800	1.2 - 208/1	8.2 - 208/1	Timed ambient	

Item 62B  
 COOLER EVAPORATOR COIL  
 Specified as part of item 62A.

Item 63A  
 FREEZER OUTDOOR AIR-COOLED CONDENSING UNIT  
 Specified as part of item 62A.

Item 63B  
 FREEZER EVAPORATOR COIL  
 Specified as part of item 62A.

Item 64  
 Spare number

Item 65  
 Spare number

Item 66

SOILED WARE TABLE AND PASS-THRU WINDOW FRAME

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - Per the plans as shown on FS100, 34 in. high plus 10 in. high splash at walls; 3 in. high raised open roll on working faces; 48 in. by 50 in. pass thru with 35 in. sill height; 18 in. by 18 in. by 8 in. deep integral sink.

Construction - 14 gauge stainless steel top, sink basin and splash, channel frame, eleven legs with gussets, adjustable feet, and ten crossrails. Secure 3 in. off wall. Turn end down into dishwasher and secure with stainless steel machine screws. Top of splash shall be fitted with integral flat spot for mounting of the pre-rinse fixture. Top shall pass through the wall and be an integral part of the pass window. Pass-thru ledge shall extend through the wall and be secured to the frame. Provide a 16 gauge stainless steel telescoping window frame at the opening with front edges turned out 2 in. and returned 1/2 in. Rear edges to be turned out 2-1/2 in. flat to wall. Integral scrapping sink shall be provided with a 2 in. by 1/4 in. bar stock rack guide attached to the reinforced splash with stainless steel through bolts. Sink shall be provided a removable rack slide guide.

Accessories - Provide unit with a 2 in. free flow waste outlet Component Hardware D36-2080

Item 67

ROLL-DOWN DOOR

No work in this Section. Units provided by General Contractor.

Item 68

DISPOSER WITH CONTROL PANEL

Make - Salvajor 200-SA-ARSS-3-LD\*C166 or equal by Red Goat or In-Sink-Erator

Power - 6.6 amps - 208/60/3

Water consumption - 3-8 gpm, full load condition, 10 minute automatic shutoff; or 1 gpm, no-load condition

Description - Unit shall have an 8 in. diameter precision ground nickel-chrome carbide shredder, 58-60 Rockwell "C" hardness with a hardened carbide rotor, 52-58 Rockwell "C" driven by a water cooled electric motor with an air seal, automatic reversing feature, and built-in thermal overload protection. Housing shall be of an aluminum alloy with a polished exterior finish and an adjustable leg support. All bearings shall be permanently lubricated type. Feed throat to be 6-1/2 in. diameter.

Accessories - Provide 6-1/2 in. sink mount assembly with short top housing, equipped with water inlet nozzle for mounting in the sink, grinding chamber inlet, removable rubber scrapping ring, vacuum breaker, flow control, electric solenoid valve, and a wall mounted ARSS-LD start/stop switch with auto reverse and line disconnect in a stainless steel NEMA 4 enclosure.

Item 69

HOSE REEL ASSEMBLY

Make - T&S Brass B-1457-7102-01C or equal by Fisher or Reel Craft

Size - 12-foot hose, 3/8 in. ID

Maximum Water Use - 1.07 Gallons per minute

Description - Unit shall be all standard construction with stainless steel open type reel, adjustable bumper, blue hose, B-107-J low flow spray valve, heat resistant spray valve handle, chrome risers, two wall brackets, continuous pressure vacuum breaker, 36 in. flexible water hose, control valve, and deck type base faucet, designed for wall mounting per plan up 7 ft.-6 in. measured at the inlet.

Item 69 continued

Accessories - Provide with G019430-45 stainless steel wall mount swing bracket. Provide modified risers sized for assembled installation under an 8 ft.-6 in. high ceiling.

Installation - The hose reel bracket for wall mounted units shall be rotated 90° downward and installed such that it allows the hose to hang straight down and parallel to the wall. Refer to T&S Brass instructions manual page four figure one for further details.

Item 70

RACK CONVEYOR DISHMACHINE

Make - Hobart CL44eR Advansys L-R or equal by Champion or Mikeo

Size - 40-1/4 in. by 30-1/8 in. by 68-1/2 in. high

Power - 68 amps - 480/60/3 (includes motors, controls and booster heater)

Direction- Left to right

Description - Unit shall be standard construction, double tank, fully automatic, rack conveyor type with 16 gauge stainless steel wash and rinse chambers, welded stainless steel frame and motor supports, stainless steel chambers, housing, insulated inspection doors and legs with adjustable feet. Conveyor structure, tracks, and drive unit to be all stainless steel with a conveyor speed of 5.6 feet per minute. Warewasher to be complete with top mounted stainless steel control module with "start/stop" button and digital display. Unit shall have an energy recovery system with heat exchanger for pre-heating supply water for the booster heater.

Accessories - Provide machine with built-in pressureless stainless 30 KW booster heater, single point connection for motors and tank heat, two vent hoods with 4 in. by 16 in. stainless steel stacks all welded water tight complete with locking dampers. Provide machine four plastic peg racks and two plastic flat racks and sheet pan rack. Provide single point electrical connection. Table limit switch and drain water tempering kit.

Item 70A

EXHAUST DUCTS

Quantity - 2

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 4 in. by 16 in. with length as necessary to reach 3 in. above finished ceiling

Construction - 18 gauge stainless steel welded exhaust ducts, sized to suit the vent stacks. Ducts shall be provided with a one-piece perimeter angle collar at the ceiling, installed "leg up".

Item 71

CLEAN DISH TABLE

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 72 in. by 27 in. by 34 in. high plus 10 in. splash at rear; 3 in. high raised roll at front and end

Construction - 14 gauge stainless steel top and splash over channel frame with raised roll front and right-end, tall splash at rear, turned down into dishwasher and secured with stainless steel machine screws, and mounted on four legs with gussets, adjustable feet and undershelf. Secure table 3 in. off face of wall.

Accessories - Coordinate mounting for dish machine limit switch. Provide flanged feet for securing to the floor.

Item 72

Spare number

Item 73  
Spare number

Item 74  
MILK COOLER

Make - True TMC-58-S-DS-SS-HC\*C166 or equal by Continental or Beverage-Air

Size - 58 in. by 33 in. by 46-3/4 in. high; sixteen 13 in. by 13 in. by 11 in. milk crate capacity

Power - 2.7 amps - 120/60/1 - cord and plug

Description - Milk cooler shall be all standard construction with stainless interior and exterior. Self-contained refrigeration system with thermostatic controls, R290 refrigerant, polyurethane foam insulation, and hinged stainless steel removable service doors. Unit provided with digital exterior temperature display. Mount on 4 in. diameter swivel casters.

Item 75  
SERVING COUNTERS WITH BREATH GUARDS

Quantity - 2 as shown on sheet FS100

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 15 ft.-0 in. by 33 in. plus 10 in. deep trayslide by 36 in. high; 30 in. high to top of trayslide

American Disabilities Act Requirements - Food pans and breath guards shall be mounted in accordance with ADA code requirements for side reach per code section 4.2.6.

Power -

4.0 KW - 208/60/1 to disconnect for four hot food wells

20 amps - 120/60/1 to body mounted GFI outlet at cold food end

20 amps - 120/60/1 to each of two apron mounted GFI outlets

Construction - 14 gauge stainless steel top over angle frame with all edges turned down 2 in. and corners welded. Provide raw openings for the hot food wells and a flanged opening for the refrigerated pan with all edges flanged down 1 in. and corners filled and welded.

Mount on eight 2 in. square 16 gauge stainless steel tubular legs with Component Hardware A15-0851 adjustable feet. Reinforce between all front and end legs with 2 in. square stainless steel tubing welded in place 6-1/4 in. clear above floor. Provide similar reinforcement between rear legs where an undershelf does not exist.

Undershelves shall be fabricated of 16 gauge stainless steel with reinforcing and sound deadening as specified for open base table undershelves. Front face shall be turned down 1-1/2 in. and in 1/2 in. at 45°. Rear and ends shall be turned up 1-1/2 in. and corners welded. Weld to legs at a point 10 in. above floor. Shelf shall be mounted on the inside face of legs, not cut-out at each leg. Leave 2 in. clearance between the shelf edge and the counter front and end panels for passing of services by Related Trades.

Trayslide shall be fabricated of 14 gauge stainless steel with front and ends turned down and corners welded. Rear shall be turned up under the counter front edge Mount on Component Hardware J19-4966 brackets bolted through the front panels to reinforced area..

Front and ends of counter shall be provided with plastic laminate clad panels. Plastic laminate manufacturer shall be as selected by the Architect. Plastic laminate color shall be as selected by the Architect from Wilsonart's full range of colors. Panels shall be mounted with a minimum of joints. All joints to be hairline type. Joint between a front and end panel shall appear on the end panel face. Panels shall be secured to counter legs and crossrails with welded stainless steel clips and stainless steel wood screws. Do NOT secure THROUGH the legs or crossrails. Provide a continuous 14 gauge support-protector strip at the lower edge of all finish panels, extending 1/16 in. past front face.

Item 75 Continued

Apron shall be provided per elevations, fabricated of 18 gauge stainless steel, and shall be used for the mounting of switches, outlets, and controls. Apron shall include a formed reinforced bottom edge and shall be set in 1 in. from leg face.

Accessories - Provide with a 62 in. long Versa-Gard VG6S-CT full-service protector case with brushed stainless steel uprights, surface mounted flanges, mounted over hot wells per plan. Provide with 63 in. long Versa-Gard VG2.1SK convertible display case with brushed stainless steel uprights, surface mounted flanges, mounted over refrigerated cold pan per plan.

Item 76

REFRIGERATED COLD PANS

Quantity - 2

Make - Wells RCP-400\*C166 or equal by Hatco or APW

Size - 58-1/2 in. by 25-3/8 in. with 66-3/4 in. by 19-7/8 in. by 8 in. deep pan

Power - 7 amps (1/4 HP) - 120/60/1 - NEMA 5-15P cord and plug

Description - Mechanically refrigerated cold pan shall be all standard construction with stainless steel pan and mounting frame, 1 in. insulation on all sides, all contained in galvanized steel wrapper, drain outlet, and self-contained thermostatically controlled refrigeration system mounted on an integral angle frame.

Accessories - Provide optional five-year warranty on the compressor.

Item 77

HOT FOOD WELLS (GROUPS OF FOUR)

Quantity - 8

Make - Wells MOD-100TD\*C166 or equal by Hatco or APW

Power - 1.2 KW - 208/60/1

Description - Modular food warmer shall be all standard construction and shall consist of a stainless steel mounting frame, gasket and locking system, stainless steel 6 in. deep "wet or dry" hot food well with 1 in. thick fiberglass insulation on five sides enclosed in an aluminized steel enclosure, and a thermostatic control with mounting panel for installation in the counter apron complete with gasket, lead wires encased in flexible armored conduit, drain outlet, and mounting hardware. Wells shall be Fabricator wired to a single point with disconnect switch in accordance with UL Requirements.

Accessories - Mount in groups of four and provide a quarter turn ball type shut-off valve and Fabricator installed 3/4 in. copper manifold connecting the wells, complete with cleanout, left ready for extending to the floor drain by the Plumbing Contractor.

Item 78

FILL FAUCETS

Quantity - 2

Make - T&S Brass B-0208 or equal by Fisher or Encore

Description - Unit shall be all standard construction with a B-199-02F-12 aerator tip.

Item 79

CASHIER STANDS

Quantity - 2

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 30 in. by 30 in. by 36 in. high main section with 42 in. by 12 in. trayslide set at 30 in. above floor



Item 79 continued

Construction - 14 gauge stainless steel top over angle frame with all edges turned down 2 in. and corners welded. Mount on four 2 in. square legs with crossrails on three sides, footrest set in 8 in., undershelf and plastic laminate clad panels on three sides and a solid mounted trayslide all of similar construction to the serving counter. Provide 3 in. diameter grommeted hole in top below rear of cashier terminal for passage of cables. Provide 5 in. diameter swivel casters; two with brakes.

Accessories - Provide unit with a Component Hardware S95-1000 locking cashier drawer.

Item 80

CASH REGISTERS

Quantity - 2

No work in this Section. Units provided by Owner.

Item 81

MOBILE CONDIMENT COUNTER

Make - Fabricate per General Construction this Section by Custom Metals of Massachusetts, Carbone Metal Fabricators, or LTI (Low Temp Industries)

Size - 60 in. by 30 in. by 34 in. high

Construction - 14 gauge stainless steel top over angle frame with all edges turned down 2 in. and corners welded. Mount on four 2 in. square legs with undershelf and plastic laminate clad panels on four sides all of similar construction to the serving counter. Rear face shall be provided with a pair of hinged doors in a 36 in. wide opening. Provide 5 in. diameter swivel casters; two with brakes.

PART 3 - EXECUTION

3.1 SANITATION REQUIREMENTS

- A. Equipment specified herein shall be fabricated to conform to the "Food Service Equipment Standards" of the National Sanitation Foundation prepared by the Committee on Food Service Standards, and published by the National Sanitation Foundation, Ann Arbor, Michigan. Any differences of opinion on sanitation will be referred to the State Department of Health for a ruling.
- B. Equipment shall be installed in accordance with the manufacturer's instructions and the best practices of the food service industry, with careful attention to eliminating all cracks, crevices and concealed spaces in wet areas that would be difficult to clean or keep free of vermin and soil.

3.2 EXAMINATION AND ACCEPTANCE

- A. Determine whether the General Contractor will furnish and provide temporary power and light, openings and storage space to permit scheduled delivery of equipment. Verify water pressure and provide necessary reducing valves.
- B. Examine space in which specified work is to be installed to assure that conditions are satisfactory for the installation of specified work. Report in writing to the Architect, any deficiency in the work of other contractors affecting specified work. Commencement of specified work will be construed as acceptance of space conditions.

- C. Obtain and verify all measurements and conditions on the job, and assume responsibility in respect to same.
- D. Inspect flooring and raised concrete bases, wall finishes, painting, ceiling installation and all related work for readiness to commence installation of foodservice equipment. Verify the existence of required mechanical and electrical rough-ins.

### 3.3 CLEANING UP

- A. Debris and surplus materials resulting from installation work shall be removed promptly as work progresses, to a location indicated by the General Contractor.
- B. Following completion, and before final acceptance by the Owner, clean finished surfaces in accordance with the manufacturer's instructions, and leave specified work free of imperfections.
- C. Provide Architect or Consultant with a loose leaf bound manual of operating data and maintenance instructions containing complete description, wiring diagrams, operating data, maintenance requirements and other information pertaining to the proper operation and upkeep of the various items of electrical or mechanical equipment. Include names, addresses and telephone numbers of authorized service agencies for all items. Arrange all material in alphabetical order by Manufacturer. Provide with a list of equipment to include make, model, and serial number where applicable. Book shall be turned over to Owner after review and approval.
- D. Submit guarantees and warranties to the Architect in the above specified manual with all warranty cards completed and becoming effective at the time the equipment was satisfactorily demonstrated.

### 3.4 PROTECTION OF WORK

- A. Protect specified work from damage during transportation to the project site, storage at the site, during installation, and after completion until acceptance by the Owner.
- B. Protect adjacent work under other contracts during installation until completion of specified work. After completion, the contractor for other work shall be responsible for the protection of his work until acceptance by the Owner.
- C. Damaged work as determined by the Architect, shall be repaired or replaced as determined by the Architect.

3.5 DEMONSTRATION AND OPERATING INSTRUCTIONS

- A. Before final acceptance, and by appointment with the Owner and his representatives, completely demonstrate with power, the correct operation of each new item of operating equipment.
- B. Prior to the demonstration, turn on all mechanical and electrical foodservice equipment. Test for leaks, poor connections, and inadequate or faulty performance and correct if necessary. Adjust for proper operation. Thermostatically controlled equipment and equipment with automatic features shall be operated for a sufficient length of time with proper testing equipment to prove controls are functioning as intended. Recalibrate thermostats if necessary.
- C. Provide Architect or Consultant with a loose leaf bound manual of operating data and maintenance instructions containing complete description, wiring diagrams, operating data, maintenance requirements and other information pertaining to the proper operation and upkeep of the various items of electrical or mechanical equipment. Include names, addresses and telephone numbers of authorized service agencies for all items. Arrange all material in alphabetical order by Manufacturer. Book shall be turned over to Owner after review and approval.
- D. Submit guarantees and warranties to the Architect in the above specified manual with all warranty cards completed and becoming effective at the time the equipment was satisfactorily demonstrated.

END OF SECTION 114000