



ADDENDUM

Date Issued:	March 2, 2023
Project:	Canyons School District Cafeteria Front Line Upgrade Silver Mesa Elementary School 8920 S. 1700 E. Sandy, UT 84093
Addendum Number:	1

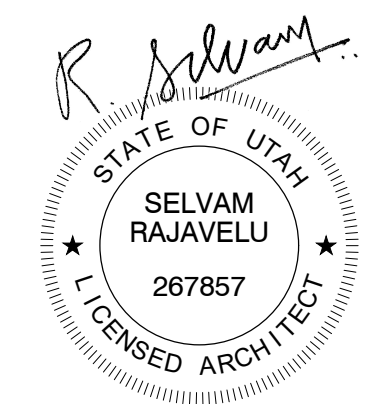
The Contractors submitting proposals on the above-captioned project shall be governed by the following addendum, changes and explanations to the drawings and specifications and shall submit their bids in accordance therewith.

Drawing Number	Description
Architectural Drawings	
A111	<ol style="list-style-type: none"> KN 1.01: Removed the requirement for x-ray of floor slab. KN 02.18: Changed the requirements for sawcutting of existing slab. KN 26.03: Indicated that the electrical panel is shown on this page. Detail 2 (Demolition Plan): Removed KN 1.01. Detail 1 (Floor Plan): Updated the sneezeguard, food wells, food well controls, and electrical junction box location to match the Food Service Plans.
A121	<ol style="list-style-type: none"> KN 11.05, 11.06, and 22.04: Revised keyed notes to add verbiage about keeping shelf space unobstructed. Details 3 & 4 (Sections): Revised schematic plumbing line locations. Detail 1 (Elevation): Indicated removable base per Food Service Plans.

Specification Section	Description
11 4000	See attached revised specification, changes from original are BOLD .

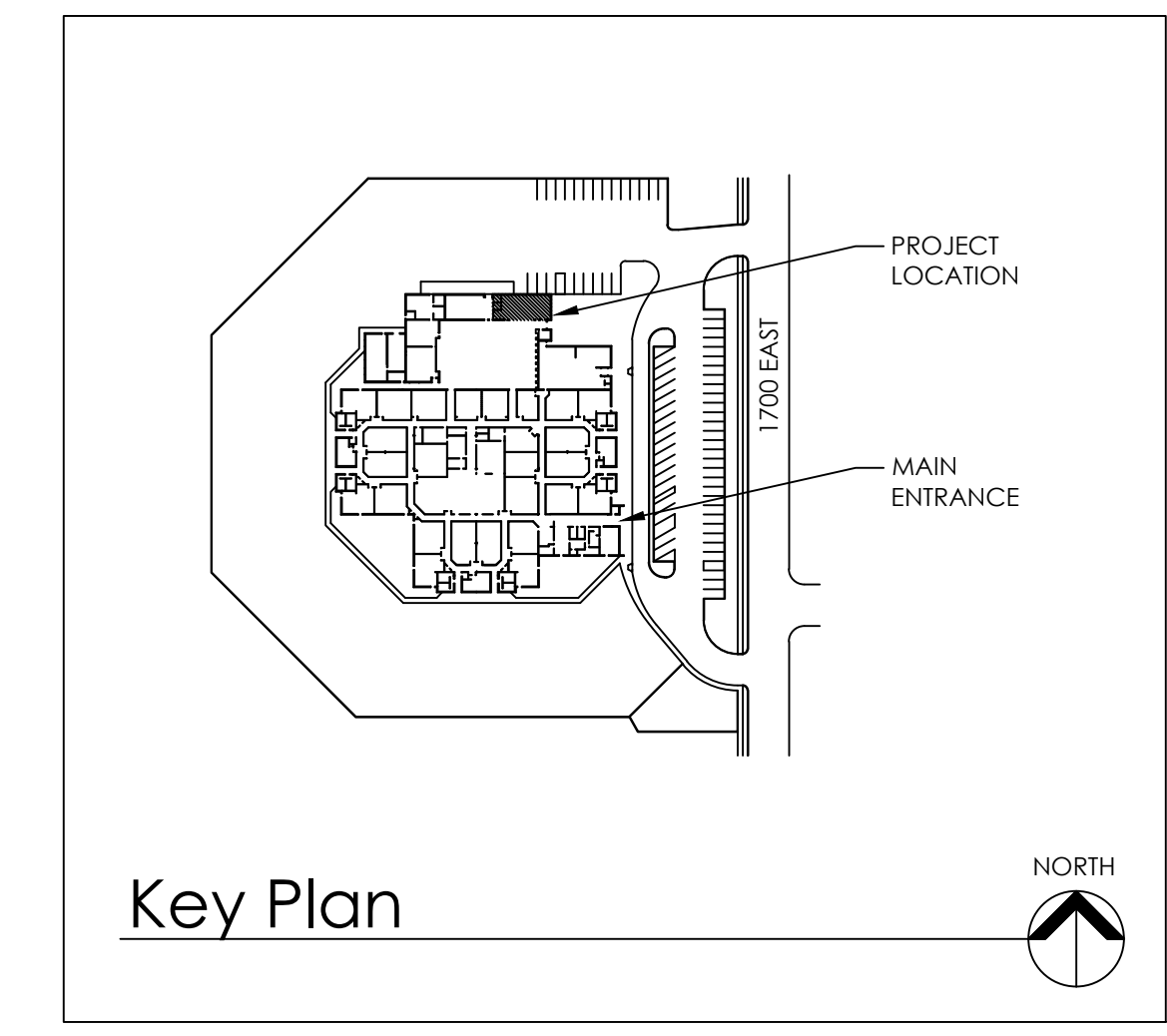
Attachments:

Drawings: A111, A121
 Specifications: Section 11 4000, "Food Service Equipment"



- ### KEYED NOTES
- 01.01 NOT USED.
 - 02.01 EXISTING PARTIALLY EXPOSED EXISTING WATER LINE, VALVES, & WASTE LINE UNDER EXISTING COUNTERTOP TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.02 EXISTING ROLL-UP DOORS, FRAMES, & COLUMNS TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.03 EXISTING WALL DOORS, FINISHES, MECHANICAL, PLUMBING, ELECTRICAL, ETC. TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY EXACT CONDITIONS.
 - 02.04 APPROX. LOCATION OF EXISTING FLOOR DRAIN TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.05 APPROX. LOCATION OF EXISTING CLEAN OUT TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.07 APPROX. LOCATION OF EXISTING ELECTRICAL PANELS TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.08 EXISTING CONDUIT TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.09 APPROX. LOCATION OF EXISTING DISH WASHER TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.10 EXISTING W/EAR CEILING GRID ABOVE TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.12 EXISTING STAINLESS STEEL COUNTERTOP, SNEEZE GUARD, & WOOD CABINETS TO BE REMOVED. PROTECT EXISTING DOOR, FRAME, WALLS, FLOOR, ETC. FROM DAMAGE. FIELD VERIFY.
 - 02.13 EXISTING SINK TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.14 EXISTING STAINLESS STEEL COUNTERTOP TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.15 EXISTING RAILINGS TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.18 TO PROTECT EXISTING ELECTRICAL CONDUITS, SAWCUT 3" DEEP, MAX FOR NEW PLUMBING WASTE LINE. THEN USE SLEDGEHAMMER TO REMOVE THE REMAINDER OF CONCRETE. PROTECT EXISTING FLOOR, FLOOR DRAIN, WALLS, & EQUIP. FROM DAMAGE. FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH PLUMBING PLANS.
 - 02.23 EXISTING LIGHT SWITCH TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 02.28 EXISTING EQUIPMENT TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
 - 09.01 PATCH AND REPAIR EXISTING FLOOR AS REQUIRED. NEW FINISHED FLOOR TO BE FLUSH W/ EXISTING FINISHED FLOOR. FIELD VERIFY. COORDINATE W/ OWNER REP. AND ARCHITECT. PROTECT EXISTING FLOOR, FLOOR DRAIN, WALLS, & EQUIP. FROM DAMAGE. FIELD VERIFY. SEE PLUMBING PLANS.
 - 11.01 COUNTER MOUNT 2-PAN FOOD WELL SYSTEM. SEE FOOD SERVICE PLANS & SPECS.
 - 11.02 SNEEZE GUARD. SEE ELEVATIONS, FOOD SERVICE PLANS, & SPECS.
 - 11.03 STAINLESS STEEL SERVING COUNTER, CABINET FRAME, SHELVING, BACK PANEL, SIDE PANEL, & KICKPLATE. SEE ELEVATIONS, FOOD SERVICE PLANS, & SPECS.
 - 11.05 2-PAN FOOD WELL CONTROLS. SEE ELEVATIONS & FOOD SERVICE PLANS.
 - 22.01 DROP 1/2" HOT WATER COPPER LINE DOWN FROM CEILING AT WALL. INSTALL TIGHT TO WALL W/ STAINLESS STEEL COVER. EXTEND UNDER COUNTER AS SHOWN & EXTEND AND CONNECT TO FOOD WELL SYSTEM AS REQUIRED. COORDINATE ROUTING W/ OWNER. FIELD VERIFY. SEE ELEVATIONS, PLUMBING PLANS, & FOOD SERVICE PLANS.
 - 22.02 EXTEND WASTE LINE UNDER EXISTING FLOOR FROM FLOOR SINK TO EXISTING WASTE LINE. FIELD VERIFY. PATCH & REPAIR CONC. SLAB & TILE AS REQUIRED. FINISHED NEW FLOOR TO BE FLUSH W/ EXISTING FINISHED FLOOR. PROTECT EXISTING FLOOR, WALLS, & EQUIP. FROM DAMAGE. FIELD VERIFY. SEE PLUMBING PLANS.
 - 22.03 WHITE ENAMEL FLOOR SINK WITH DOME GRATE. SAWCUT EXISTING FLOOR AS REQUIRED. PROTECT EXISTING FLOOR, WALLS, & EQUIP. FROM DAMAGE. FIELD VERIFY. SEE PLUMBING PLANS.
 - 26.01 DROP ELECTRICAL SERVICE DOWN FROM CEILING AT WALL IN CONDUIT. INSTALL TIGHT TO WALL W/ STAINLESS STEEL COVER. EXTEND UNDER COUNTER AS SHOWN & EXTEND & CONNECT TO FOOD WELL SYSTEM AS REQUIRED. COORDINATE ROUTING W/ OWNER. FIELD VERIFY. SEE ELEVATIONS & FOOD SERVICE PLANS.
 - 26.03 PROVIDE [1] 20A 3 POLE BREAKER WITHIN EXISTING 120/208V 3P PANELBOARD SHOWN ON THIS PAGE. PROVIDE 3/4" x 1 1/2" THICK CU IN 3/4" CONDUIT AND WIRE THE NEW HOT FOOD WARMER AS REQUIRED. COORDINATE EXACT LOCATION AND TERMINATION REQUIREMENTS WITH ARCHITECT AND KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

- ### GENERAL NOTES
- A. PRIOR TO REMOVAL OF EXISTING BUILDING MATERIALS (INCLUDING WALLS, DOORS, WINDOWS, CEILING, ETC.) INDICATED IN THE DEMOLITION PLAN, THE CONTRACTOR SHALL THOROUGHLY COORDINATE EXISTING CONDITIONS, ARCHITECTURAL FLOOR PLANS, CEILING PLANS, FINISH SCHEDULES AND ALL CONSULTANT DRAWINGS TO DETERMINE EXACT EXTENT OF REMOVAL.
 - B. COORDINATE WITH OWNER'S REPRESENTATIVE REGARDING ITEMS SHOWN TO BE REMOVED THAT WILL BECOME PROPERTY OF THE OWNER OR RE-USED. CAREFULLY REMOVE SUCH ITEMS SO AS NOT TO DAMAGE THEM.
 - C. IF DEMO OR NEW CONSTRUCTION OCCURS IN EXISTING FIRE RATED AREAS, VERIFY THAT ALL PENETRATIONS IN THE EXISTING FIRE RATED WALLS, FLOORS, OR CEILINGS ARE SEALED IN ACCORDANCE WITH CURRENT I.B.C. AND U.L. REQUIREMENTS.
 - D. IN EXISTING WALLS THAT ARE NOTED TO REMAIN, ANY NAILS, SCREWS, OR OPENINGS THAT REMAIN AS A RESULT OF EXISTING EQUIPMENT REMOVAL OR WALL REMOVAL SHALL BE PATCHED WITH SMOOTH, EVEN, INVISIBLE TRANSITION. IN PLACES WHERE EXISTING GYPSUM BOARD WALLS ARE CUT FOR INSTALLATION OF POWER OUTLETS, SWITCHES, THERMOSTATS, ETC., PATCH OPENING IN WALL WITH GYPSUM BOARD. PROVIDE SMOOTH, EVEN, INVISIBLE TRANSITION BETWEEN NEW AND EXISTING GYPSUM BOARD. ALL REPAIRING, PATCHING, MUDDING, ETC. OF EXISTING GYPSUM BOARD WALLS THAT ARE TO REMAIN SHALL BE INCLUDED IN THE BID.
 - E. THE CONTRACTOR AND SUB-CONTRACTORS SHALL TAKE ALL NECESSARY MEASURES TO MINIMIZE DISRUPTION OF EXISTING SCHOOL ACTIVITIES DURING DEMOLITION AND CONSTRUCTION ACTIVITIES THAT OCCUR WHILE SCHOOL IS IN SESSION.
 - F. EXISTING CEILING, MECHANICAL ITEMS, PLUMBING ITEMS, FINISHES, EQUIPMENT, SPECIALTIES, ETC. ARE TO REMAIN UNLESS SPECIFICALLY NOTED FOR REMOVAL. PROTECT ALL ITEMS FROM DAMAGE.
 - G. ALL ITEMS; FLOORS, WALLS, DOORS, CEILING, FINISHES, MECHANICAL, PLUMBING, ELECTRICAL, SPECIALTIES, ETC. ARE EXISTING UNLESS NOTED OTHERWISE.
 - H. ALL REQUIRED ABESTOS ABATEMENT TO BE COMPLETED BY OWNER.

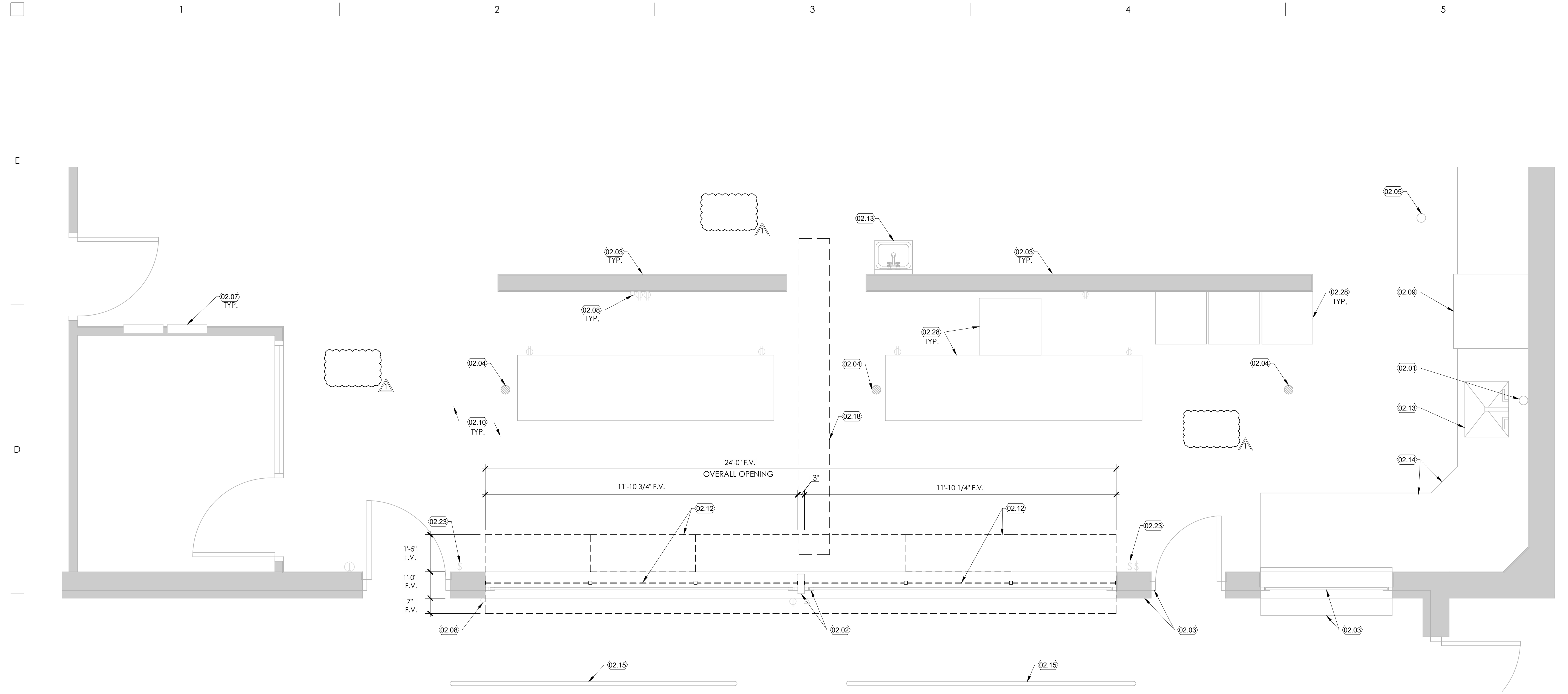


Canyons School District
Cafeteria Front Line Upgrade
Silver Mesa Elementary School

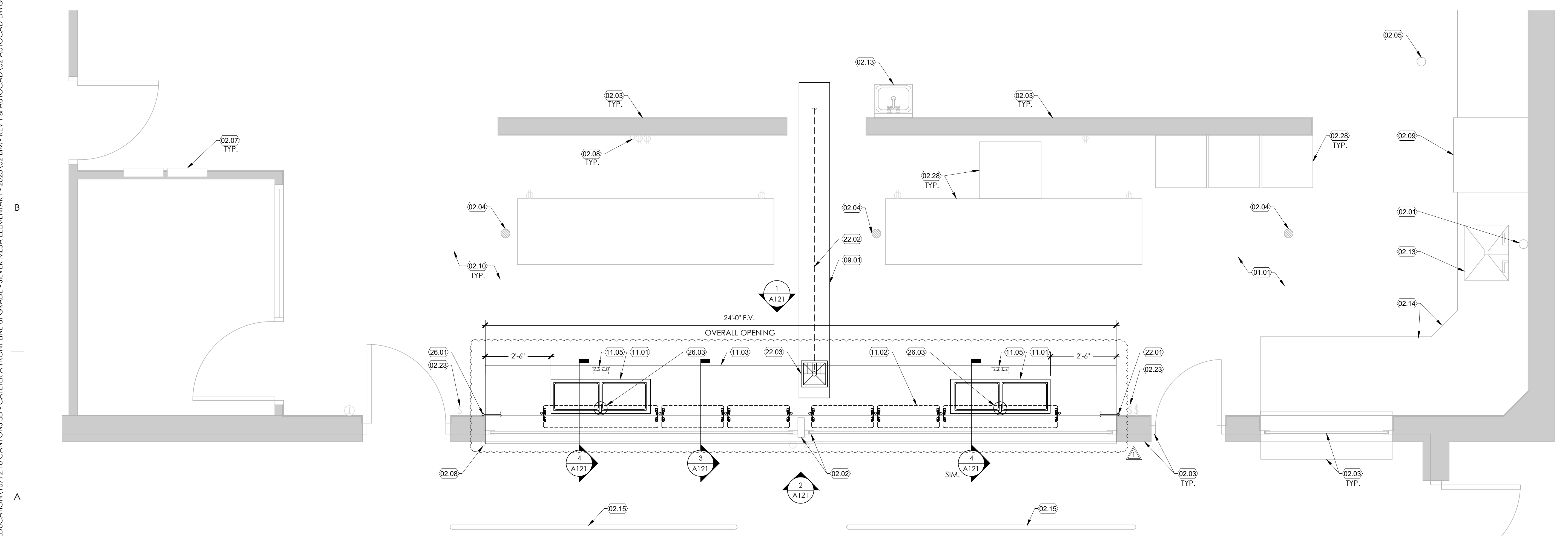
NJRA Project # 18712.10
Construction Documents Jan. 1, 2020
1 Addendum #1 March 2, 2023

Demolition
& Floor
Plans

A111



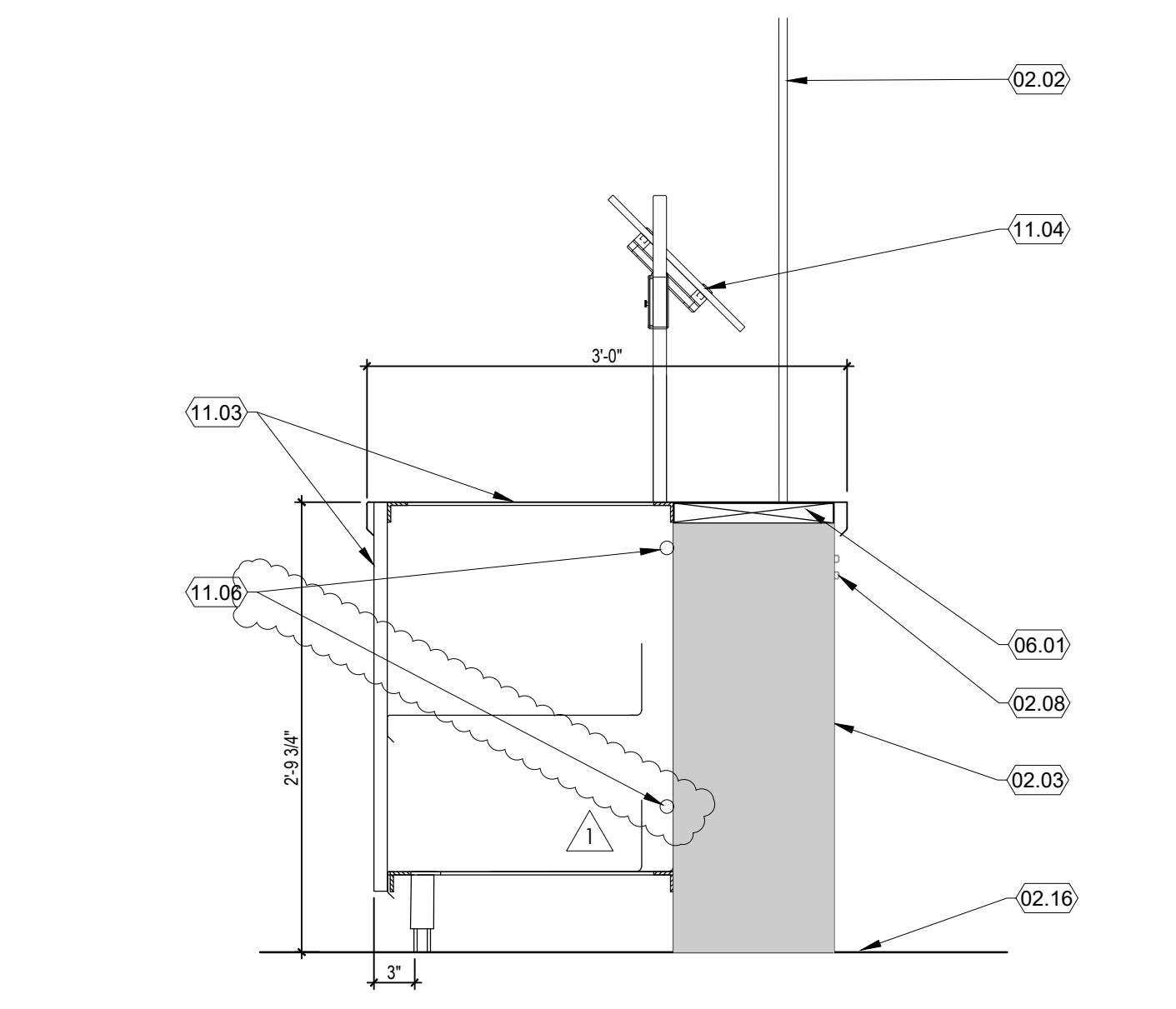
2 Demolition Floor Plan
Scale: 1/2" = 1'-0"



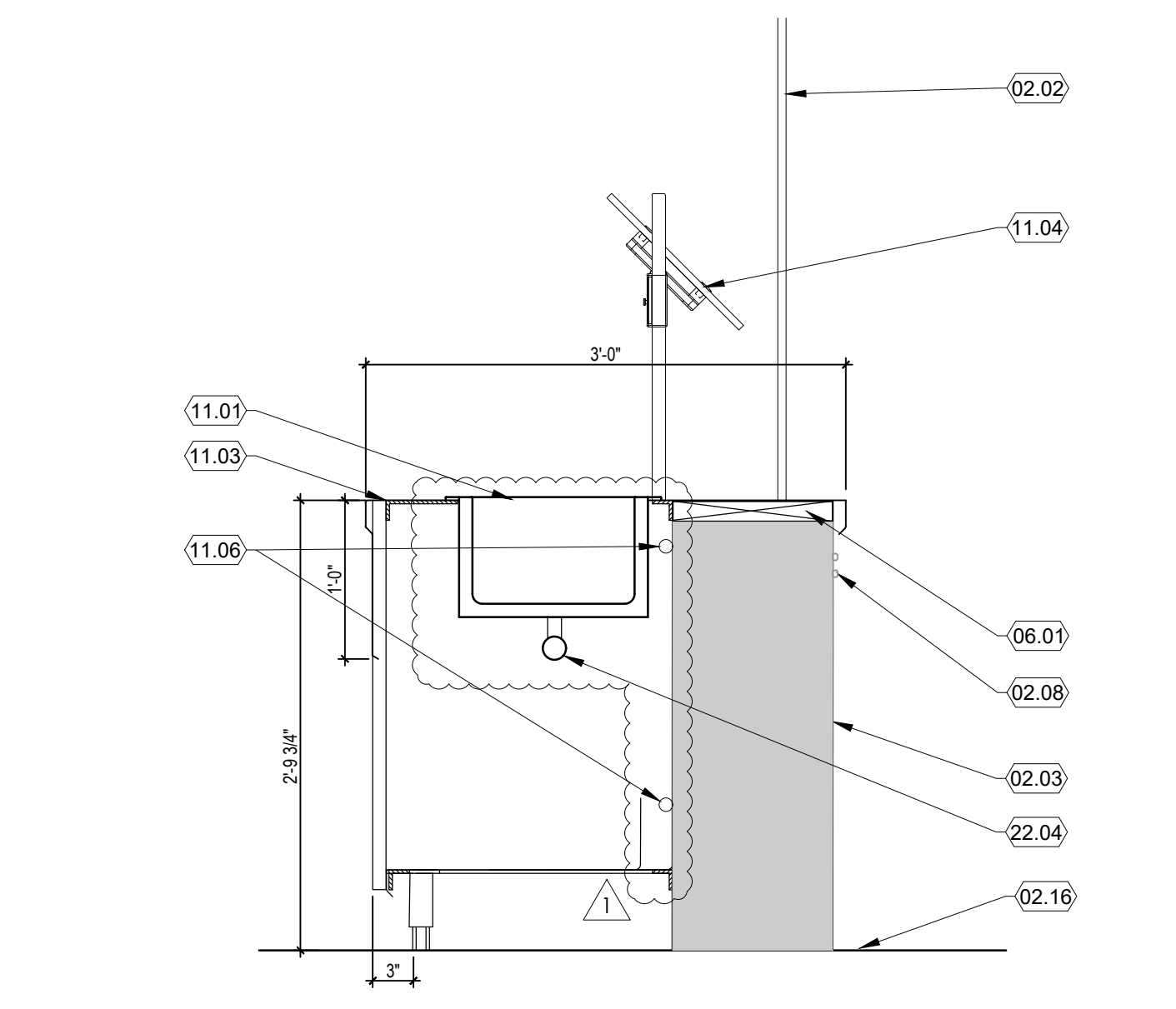
1 Floor Plan
Scale: 1/2" = 1'-0"

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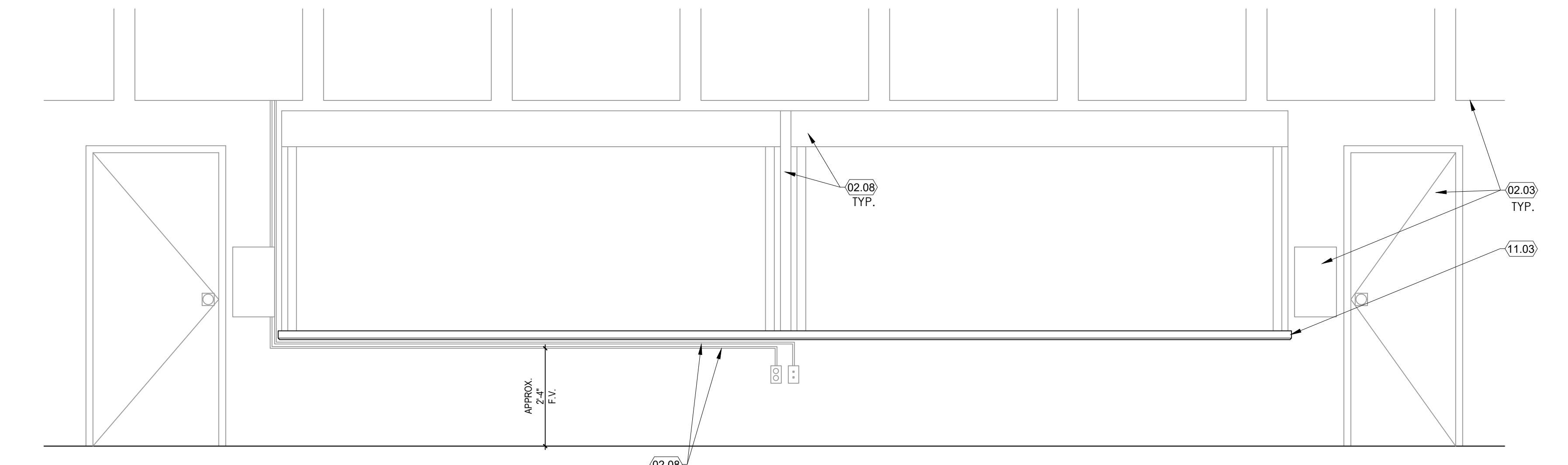
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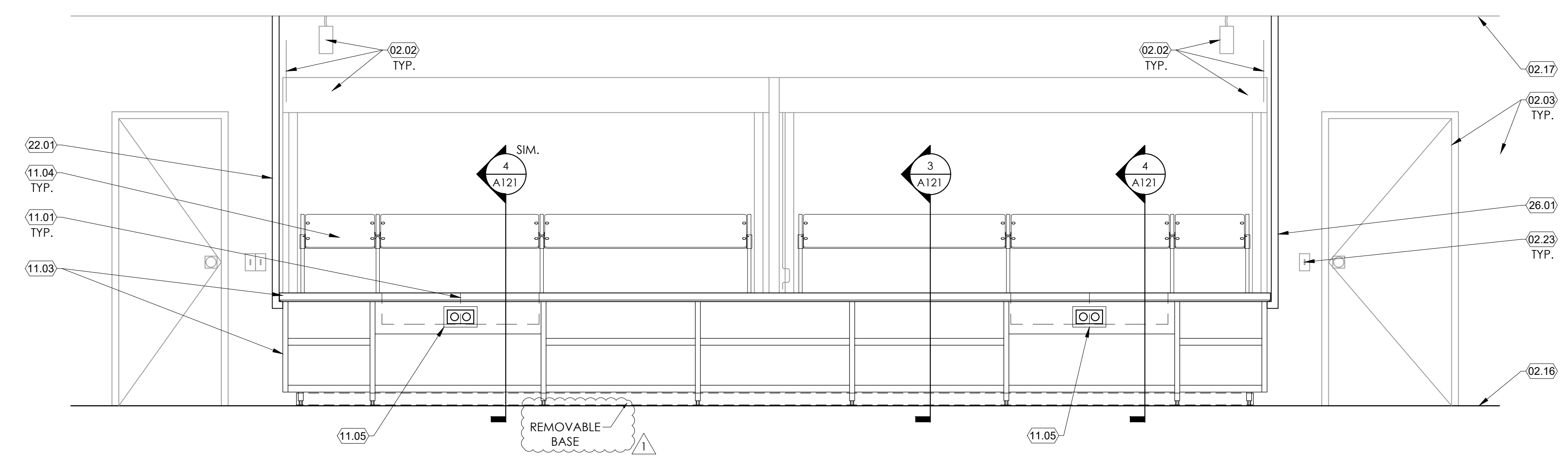
3 Section
Scale: 1" = 1'-0"



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



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



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

KEYED NOTES

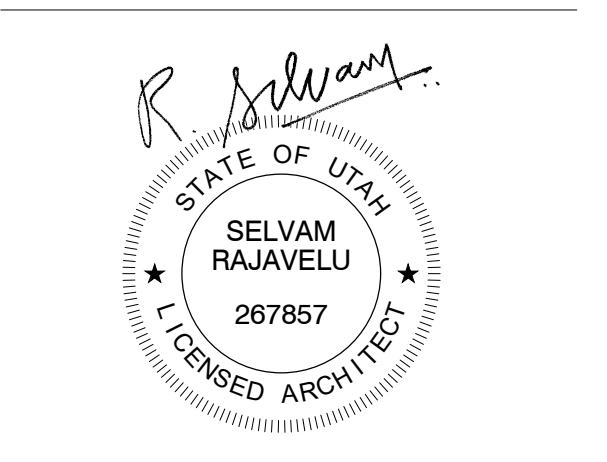
- 02.02 EXISTING ROLL-UP DOORS, FRAMES, & COLUMNS TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
- 02.03 EXISTING WALL, DOORS, FINISHES, MECH., PLUMB., ELEC., ECT. TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY EXACT CONDITIONS.
- 02.08 EXISTING CONDUIT TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY. LINE OF EXISTING FLOOR.
- 02.16 LINE OF EXISTING FLOOR.
- 02.17 LINE OF EXISTING CEILING.
- 02.23 EXISTING LIGHT SWITCH TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY.
- 06.01 NEW 2X WOOD BLOCKING.
- 11.01 COUNTER MOUNT 2-PAN FOOD WELL SYSTEM. SEE FOOD SERVICE PLANS & SPECS.
- 11.03 NEW STAINLESS STEEL SERVING COUNTER, CABINET FRAME, SHELVING, BACK PANEL, SIDE PANEL, & KICKPLATE. SEE ELEVATIONS, FOOD SERVICE PLANS & SPECS.
- 11.04 STAINLESS STEEL ADJUSTABLE SNEEZE GUARD/ FOOD PROTECTOR ATTACH FROM BELOW COUNTER. SEE FOOD SERVICE SERVICE PLANS & SPECS.
- 11.05 2-PAN FOOD WELL CONTROLS. KEEP ELECTRICAL FLEX FASTENED TO CABINET BODY TO MAINTAIN USABLE SHELF SPACE.
- 11.06 APPROX. LOCATION OF WATERLINE AND/OR ELECTRICAL CONDUIT. INSTALL THESE LINES TIGHT TO WALL. WATER SUPPLY LINES AND CONDUITS SHALL NOT HANG DOWN IN THE USABLE AREA OF THE SHELVES.
- 22.01 DROP NEW 1/2" HOT WATER COPPER LINE DOWN FROM CEILING AT WALL. INSTALL TIGHT TO WALL W/ STAINLESS STEEL COVER. EXTEND UNDER NEW COUNTER AS SHOWN & EXTEND AND CONNECT TO NEW FOOD WELL SYSTEM AS REQUIRED. COORDINATE ROUTING W/ OWNER. SEE ELEVATIONS, PLUMBING PLANS, & FOOD SERVICE PLANS.
- 22.04 DRAIN LINE FROM FOOD WELL. SEE FOOD SERVICE & PLUMBING PLANS. DRAIN LINE IS TO RUN AS TIGHT TO THE BOTTOM OF THE FOOD WELL AS FITTINGS WILL ALLOW, TO MAINTAIN USABLE SHELF SPACE.
- 26.01 DROP NEW ELECTRICAL SERVICE DOWN FROM CEILING AT WALL IN CONDUIT. INSTALL TIGHT TO WALL W/ STAINLESS STEEL COVER. EXTEND UNDER NEW COUNTER AS SHOWN & EXTEND & CONNECT TO NEW FOOD WELL SYSTEM AS REQUIRED. COORDINATE ROUTING W/ OWNER. SEE ELEVATIONS & FOOD SERVICE PLANS.

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- H. ALL REQUIRED ABESTOS ABATEMENT TO BE COMPLETED BY OWNER.



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Canyons School District
Cafeteria Front Line Upgrade
Silver Mesa Elementary School

NJRA Project # 18712.10
Construction Documents Jan. 1, 2020
1 Addendum #1 March 2, 2023

Interior Elevations, Sections, & Details
A121

8920 South 1700 East
Sandy, Utah 84093

SECTION 11 4000 - FOOD SERVICE EQUIPMENT

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The extent of Food Service Equipment is shown on the drawings and by schedules and equipment lists.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract documents, including General and Supplementary Conditions and Division 1- Specification sections apply to work of this section.
- B. Bidder is responsible for information and requirements located and identified on every part of the contract plans and specifications.
- C. Mechanical and Electrical Work: Refer to this project's specification sections Division 15 and Division 16, respectively, for mechanical and electrical services and connections for individual items of Food Service Equipment.
- D. See Division 21, 22, and 23 Sections for supply and exhaust fans; exhaust ductwork; service roughing-ins; drain traps; atmospheric vents; valves, pipes, and fittings; fire-extinguishing systems; and other materials required to complete foodservice equipment installation.
- E. See Division 23 Section "Commercial-Kitchen Hoods" for ventilation hoods.
- F. See Division 26 Sections for connections to fire-alarm systems, wiring, disconnect switches, and other electrical materials required to complete foodservice equipment installation.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Submit (1) complete electronic set, prior to ordering and/or fabrication, of manufacturer's or shop fabricator's product information and installation instructions for each item of Food Service Equipment.
- B. Shop Drawings: For fabricated equipment. Submit (1) complete electronic set of documents, prior to ordering and/or fabrication, of shop drawings showing layouts, elevations, sections and details of custom fabricated work (work not shown by manufacturer's standard product data sheets). Show plan layouts at 1/4" scale, elevations at 1/2" scale and details at 1 1/2" or larger scales, as required.
- C. Samples: For each exposed product and for each color and texture specified.
- D. Coordination Drawings: For foodservice facilities. Submit (1) complete electronic set, prior to ordering and/or fabrication, of manufacturer's or shop fabricator's product information and installation instructions for each item of Food Service Equipment.
 - 1. Indicate locations of foodservice equipment and connections to utilities.
 - 2. Key equipment using same designations as indicated on Drawings.
 - 3. Include plans and elevations; clearance requirements for equipment access and maintenance; details of equipment supports; and utility service characteristics.

- E. Operation and maintenance data. Submit (1) complete electronic set and (3) three sets of bound maintenance manuals, operating instructions, spare parts list, precautions against hazards, manufacturer's warranties and similar information. Distribute an additional copy of installation and start-up instructions to the installer. Mark each data sheet or brochure with the project name and applicable project equipment number(s)
- F. Sample warranties.

1.4 QUALITY ASSURANCE

- A. NSF Standards: Provide equipment that bears NSF Certification Mark or UL Classification Mark certifying compliance with applicable NSF standards.
- B. BISSC Standards: Provide bakery equipment that complies with BISSC/Z50.2.
 - 1. Provide BISSC-certified equipment.
- C. UL Certification: Provide electric and fuel-burning equipment and components that are evaluated by UL for fire, electric shock, and casualty hazards according to applicable safety standards, and that are UL certified for compliance and labeled for intended use.
- D. Steam Equipment: Provide steam-generating and direct-steam heating equipment that is fabricated and labeled to comply with ASME Boiler and Pressure Vessel Code.
- E. Regulatory Requirements: Install equipment to comply with the following:
 - 1. ASHRAE 15, "Safety Code for Mechanical Refrigeration."
 - 2. NFPA 54, "National Fuel Gas Code."
 - 3. NFPA 70, "National Electrical Code."
 - 4. NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations."
- F. Seismic Restraints: Comply with SMACNA's "Kitchen Ventilation Systems and Food Service Equipment Fabrication and Installation Guidelines," Appendix A, "Seismic Restraint Details," unless otherwise indicated.
- G. Pre-installation Conference: Conduct conference at General Contractor trailer at jobsite to coordinate with all trades involved in food service equipment implementation

1.5 WARRANTY

- A. Refrigeration Compressor Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace compressors that fail in materials or workmanship within specified warranty period.
 - 1. Failure includes, but is not limited to, inability to maintain set temperature.
 - 2. Warranty Period: One year from date of Substantial Completion.

1.6 PRODUCT HANDLING

- A. Protect metal finishes from damage during shipping, storage, handling, installation and construction of other work in the same space. Wrap and crate each item of equipment as needed for protection from damage. Covers exposed stainless steel surfaces with self-adhesive protective paper, of a type recommended by the metal manufacturer, and do not remove until work is installed and ready for cleaning and start-up.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Metals:

1. Stainless Steel (S/S): AISI Type 302/304, hardest workable temper, No. 4 directional polish.
2. Galvanized Steel Sheet (G.I.): ASTM A526, except ASTM A527 for extensive forming; ASTM A525, G90 zinc coating, chemical treatment. Where painted finish is indicated, provide mill-phosphatized treatment in lieu of chemical treatment.
3. Steel Sheet: ASTM A 569 hot-rolled carbon steel.
4. Galvanized Steel Pipe: ASTM A53 or ASTM A120, welded or seamless, schedule 40, galvanized.
5. Steel Structure Members: Hot rolled or cold formed, carbon steel unless stainless is indicated.
6. Galvanized Finish (G.I.): ASTM A123 hot-dipped zinc coating applied after fabrication.
7. Aluminum: ASTM B209/B221 sheet, plate and extrusions (as indicated); alloy, temper and finish as determined by manufacturer/fabricator, except 0.40-mil natural anodized finish on exposed work unless another finish is indicated.

B. Plastic Laminate:

1. NEMA LD3, Type 2, 0.051" thick, except Type 3, 0.042" for post-forming smooth (non-texture) white unless another texture and color is indicated or selected by Architect. Comply with NSF No. 35 where applicable.

C. Insulation:

1. Cooled Component Insulation: Rigid, closed-cell polyurethane foam; either heat-aged slab stock for adhesive lamination with face sheets, or foamed in place using Freon 11 as expanding agent; k-value of 0.15; not less than 1.7 lbs. Per cu ft. density.
2. Heated-Component Insulation: Rigid board, semi-rigid blanket or adhesive applied blanket of glass fiber or other mineral fiber insulation, certified by manufacturer to withstand long-term exposure to heat (temperature rating of each insulated equipment item) without deterioration. K-value of not more than 0.30; density of not less than 1.5 lbs. Per cu. Ft.

D. Joint Materials:

1. Sealant: 1-part or 2-part, polyurethane or silicone based, liquid elastomeric sealant, non-solvent release type, Shore A hardness of 30 except 45 if subject to traffic.
2. Backer Rod: Polyurethane rod stock, larger than joint width.
3. Gaskets: Solid or hollow (but not cellular) neoprene or polyvinyl chloride; light gray, minimum of 40 Shore A hardness, self-adhesive or prepared for either adhesive application or mechanical anchorage.

E. Paint and Coatings:

1. Provide the types of painting and coating materials which, after drying or curing are suitable for use in conjunction with foodservice, and which are durable, non-toxic, non-dusting, non-flaking, mildew resistant, and comply with governing regulations for Food Service.

F. Sound Deadening:

1. Heavy-bodied resinous coating, filled with granulated cork or other resilient material, compounded for permanent, non-flaking adhesion to metal in a 1/8" thick coating.
 - a. Galvanized Repair Paint: MIL-P-21035.
 - b. Pretreatment: SSPC-PT2 or PT3, or FT C490.
2. Primer Coating for Metal: FS TT-P-86 type suitable for baking where indicated.
3. Enamel for Metal: Synthetic types, FS TT-P-491, type suitable for baking where indicated.

2.2 FABRICATED PRODUCTS

A. Hardware:

1. General: Manufacturer's standard, but not less than ANSI 156.9 Type 2 (Institutional), satin finish stainless steel or dull chrome finish on brass, bronze or steel.
 - a. Cabinet Catches: Heavy-duty magnetic type, except as otherwise indicated.
 - b. Drawer Slides: Ball bearing type, side-mounting, self-closing, 250 lb. capacity.
 - c. Sliding Door Hardware: Overhead track with tandem nylon wheel hangers for door leaves over 5 sq. ft. area; roller less sanitary slides for smaller doors (comply with NSF standards).

B. Plumbing Fittings, Trim and Accessories:

1. General: Where exposed or semi-exposed, provide bright chrome-plated brass or polished stainless steel units. Provide copper or brass where not exposed.

C. Water Outlets:

1. Water Fill Devices: At sinks and at other locations where water is supplied (by manual, automatic or remote control), provide commercial quality faucets, valves, dispensers or fill devices, of the type and size indicated, and as required to operate as indicated.
2. Vacuum Breakers: Provide with Food Service Equipment where specified/required.
3. Waste Fittings: Except as otherwise indicated, provide 2" remote-lever waste valves, and 3.5" strainer basket. Integrate unit for direct connection with waste grinder where indicated.
4. P-Traps: Include removable P-traps where drains are indicated for direct connection to drainage system.

D. Electrical Materials:

1. General: Provide standard materials, devices and components as recommended by the manufacturer/fabricator, selected and installed in accordance with NEMA standards and recommendations; and as required for safe and efficient use and operation of the Food Service Equipment without objectionable noise, vibration and sanitation problems.
 - a. Controls and Signals: Provide recognized and commercial grade signals, "on-off" push button or switches, and other speed and temperature controls as required for operation, complete with pilot lights and permanent signs and graphics to assist the user of each item. Provide stainless steel cover plates at control and signal electrical boxes.

- b. Connections: Equip each item requiring electrical power with either a terminal box for permanent connection or cord-and-plug for interruptible connection as indicated. Provide standard ground-type plugs, matching outlets (specified in Division 15), light gray (plug and cord)
- c. Motors: Totally enclosed type, except drip-proof type where not exposed to a dust or moisture condition; ball bearings, except sleeve bearings and small timing motors; windings impregnated to resist moisture; horse-power and duty-cycle ratings as required for the service indicated.
- d. Power Characteristics: Refer to Division 16 specifications for project power characteristics. Also, refer to individual equipment requirements for loads and ratings.

2.3 FABRICATION OF METALWORK

A. General Fabrication Requirements:

1. Remove burrs from sheared edges of metalwork, ease the corners and smooth to eliminate cutting hazard. Bend sheets of metal at not less than the minimum radius required avoiding grain-separation in the metal. Maintain flat, smooth surfaces without damage to finish. Reinforce metal at locations of hardware, anchorage and accessory attachments, wherever metal is less than 14 gage or requires mortise application. Conceal reinforcements to the greatest extent possible. Weld in place on concealed faces.
2. Where fasteners are permitted, provide Phillips head, flat or oval head machine screws. Cap threads with acorn nuts unless fully concealed in inaccessible construction, and provide nuts and lock washers unless metal for tapping is at least 12 gauge. Match fastener head finish with finish of metal fastened.
3. Provide removable panels for access to mechanical and electrical service connections that are concealed behind or within foodservice equipment, but only where access is not possible and not indicated through other work.

B. Metal and Gauges:

1. Except as otherwise indicated, fabricate exposed metalwork of stainless steel; fabricate the following components from the gauge of metal indicated, and other components from not less than 20-gauge metal:
 - a. Table tops, Counter tops, Sinks, Drain-boards: 14 Gauge.
 - b. Shelves: 16 gauge, 18 gauge if less than 12" wide.
 - c. Front Drawer/Door Panels: 18 gauge (double-pan type).
 - d. Single-Pan Doors and Drawer Fronts: 16 gauge
 - e. Enclosed Base Cabinets: 18 gauge
 - f. Enclosed Wall Cabinets: 18 gauge
 - g. Exhaust Hoods: 18 gauge
 - h. Pan Type Inserts and Trays: 16 gauge
 - i. Skirts and Enclosure Panels: 18 gauge
 - j. Closure and Trim strips over 4" wide: 18 gauge
 - k. Hardware Reinforcement: 12 gauge
 - l. Gusset Plates: 10 gauge

C. Work-Surface Fabrication:

1. Fabricate metal work surfaces by forming and welding to provide seamless construction, using welding rods matching sheet metal, grinding and polishing. Where necessary for disassembly, provide waterproof gaskets draw-type joints with concealed bolting.

2. Reinforce work-surfaces 30" o.c. both ways with galvanized or stainless concealed structural members, reinforce edges which are not self-reinforced by formed edges.
 3. Sound deaden underside of metal work-surfaces, including sinks and similar units, with a coating of sound deadening material. Hold coating back 3" from sanitary edges that are open for cleaning.
- D. Structural Framing:
1. Except as otherwise indicated, provide framing of minimum 1"-pipe-size round pipe or tube members, with mitered and welded joints and gusset plates, ground smooth. Provide 14 gauge stainless steel tube joints for exposed framing and galvanized steel pips for concealed framing.
 2. Where indicated, flange rear and end edges up to form splashes integrally with top, with vertical and horizontal corners covered on not less than 1/4" radius, die formed. Turn back splashes 1" to wall across top and ends with rounded edge on break unless otherwise specified.
 3. For die-crimped edges, use inverted "V" 1/2" deep inside and 2" deep on outside, unless otherwise shown. For straight down flanges, make 1 3/4" deep on outside. For bull nose edges, roll down 1 3/4".
 - a. Edges: die-formed, integral with top. For rounded corners, form to 1" radius, weld, and polish to original finish.
- E. Field Joints:
1. For any field joint required because of size of fixture, butt-joint, reinforce on underside with angles of same material, bolt together with non-corrosive bolts and nuts, field weld, grind and polish.
- F. Pipe Bases:
1. Construct pipe bases of 1-5/8" diameter 18 gauge stainless steel tubing. Fit legs with polished stainless steel sanitary adjustable bullet feet to provide for adjustment of approximately 1 1/2" without exposing threads.
 2. Space legs to provide ample support for tops, preclude any possibility of buckling or sagging and in no case more than 6'-0" centers.
- G. Shelves:
1. Construct solid shelves under pipe base tables of 16 gauge stainless steel, with 1 1/2" turned down and under edges, and 2" turn up at rear, against walls, welded to pipe legs.
- H. Sinks:
1. Construct sinks of 14 gauge stainless steel No. 4 finish inside and outside. Form back, bottom, front, of one piece with ends, partitions, welded into place.
 2. Partitions: double thickness, 1" minimum space between walls.
 3. Cove interior vertical and horizontal corners of each tub not less than 1/4" radius, die formed. Outside ends of drain boards to have roll rim risers not less than 2 1/2" high.
 4. Drill faucet holes in splashes 2 1/2" below top edge on 8" centers.
 5. Weld sinks set into drain boards by 1 1/2" x 14 gauge stainless steel angle brackets, securely welded to sinks and galvanized cross angles spot welded to underside of drain boards.
 6. Sink Drains: Install in center of bottom of each sink bowl 1 1/2" I.P.S. quick opening pop-up lever type drain approximately 4" high, with a 4 1/2" flange with lugs, and fit with 3-1/8" stainless steel strainer plate.

7. Lever Handle: Of sufficient length to extend to front of sink, threaded at one end and fitted with tension spring. No riveting, screws or soldering permitted to fit drains to sinks, with all parts of drains easily removable for servicing and replacement.
8. Slope bottom of sink bowls toward outlet. Include chrome-plated tailpiece and trap.

I. Workmanship:

1. Best quality in the trade. Field verify dimensions, check measurements before fabricating; conform all items to dimensions of building; neatly fit around pipes, offsets and other obstructions.
2. Fabricate only in accordance with approved shop drawings, showing all pipes, obstructions to be built around, and location of Utility Requirements and services.
3. After the General Contractor has approved Shop Drawings, he is responsible for preventing additional obstructions being placed in way of kitchen equipment.
4. Where equipment is exposed to customer view, provide enclosure of service lines, operating components and mechanical and electrical devices.

J. Enclosures:

1. Provide enclosures, including panels, housings and skirts for service lines, operating components and mechanical and electrical devices associated with the Food Service Equipment, except as specifically indicated to be "open".

K. Shop Painting:

1. Clean and prepare metal surfaces to be painted; remove rust and dirt, apply treatment to zinc-coated surface that has not been mill-phosphatized. Coat welded and abraded areas of zinc-coated surfaces with galvanized repair paint. Apply 1.5 mil (dry film thickness) metal primer coating, followed by 2, 1.0 mil (dry film thickness) metal, enamel finish coatings. Bake primer and finish coatings in accordance with paint manufacturer's instructions for a baked enamel finish.

2.4 REFRIGERATION EQUIPMENT

- A. Provide either single or multiple compressor units, as recommended by the manufacturer for the sizes and variations between connected evaporator loads as indicated.
- B. Provide units of the capacities indicated, arranged to respond to multiple-evaporator thermostats and defrosting timers. Include coils, receivers, compressors, motors, motor starters, mounting bases, vibrations insulation units, fans, dryers, valves, piping, insulation, gauges, winter control equipment, high ambient control equipment, and complete automatic control system.
- C. Refrigerant: Pre-charge units with type or types recommended by manufacturer for services indicated, with quick disconnect type connections where specified, ready to receive refrigerant piping runs to evaporators and (where remote) to condensers.
- D. Provide air-cooled condensers, located with the compressors, complete with refrigerant piping installed at the factory. Locate exterior units as shown with weather housings and protective enclosures.
- E. The minimum outdoor operating ambient temperature for design of units is -10 degrees F. Maximum ambient condition for load on the air cooled condenser is 95 degrees F. with 75% relative humidity in basically still air, or units to be provided with high ambient temperature controls.

2.5 MISCELLANEOUS MATERIALS AND FABRICATION

A. Nameplate:

1. Wherever possible, locate nameplates and labels on manufactured items in accessible position, but not within customer's normal view. Do not apply nameplates or labels on custom-fabricated work, except as required for compliance with governing regulations, insurance requirements or operator performance.

B. Manufactured Equipment Items:

1. Furnish items as scheduled or herein specified. Verify dimensions, spaces, rough in and service requirements and electrical characteristics before ordering. Provide all trim, accessories, and miscellaneous items for complete installation.

PART 3 - EXECUTION

3.1 INSPECTION AND PREPARATION

- A. The installer of the Food Service Equipment must examine the rough in of mechanical and electrical services by others, and the conditions under which the work is to be done and must verify dimensions of the services and substrates before fabricating the work. Notification of unsatisfactory conditions for the proper installation of the Food Service Equipment must be made in writing to the General Contractor.
- B. Do not proceed with the fabrication and installation until unsatisfactory dimensions and conditions have been corrected in a manner acceptable to the installer.
- C. Bidder is to verify site conditions to allow for the physical installation of each piece of equipment. Any consideration or associated cost required allowing for the installation is to be the responsibility of the bidder.

3.2 INSTALLATION

- A. Water Connections: Install water connections and outlets at each item of equipment, with air gaps, vacuum breakers and similar provisions to comply with governing regulations, but not less than compliance with ANSI Standards A40.4 and A40.6.
- B. Gas burners: Install gas burning appliances, including gas vents if necessary, to comply with NFPA No. 54.
- C. Electrical Work: Assemble electrical components of equipment in accordance with applicable "Standards of Installation" by the National Electrical Contractors Association.
- D. Service Line and Equipment Connections: Refer to division 15 sections for piping connections and piping systems. Refer to division 16 sections for electrical work including equipment connections.

E. Jointing and Anchoring:

1. Set each items of non-mobile and non-portable equipment securely in place and level and adjust to correct height. Anchor to supporting substrate where indicated and where required for sustained operation and use without shifting or dislocation. Conceal anchorage wherever possible. Adjust counter tops and other work surfaces to a level tolerance of 1/6" (maximum offset, and plus-or-minus on dimensions, and maximum variation in 2'-0" run from level of indicated slope).
2. Complete field assemble joints in the work (joints which cannot be completed in the shop) by welding, bolting and gaskets, or similar methods as indicated. Grind welds smooth and restore finish. Set or trim flush, except for "T" gaskets as indicated.
3. Treat enclosed spaces (inaccessible after equipment installation) by covering horizontal surfaces with powdered borax at a rate of 4 oz. per sq. ft..
4. Install closure plates and strips where required, with joints coordinated with units of equipment.
5. Install sealant and gaskets all around each unit to make joints air tight, waterproof, vermin-proof, and sanitary for cleaning purposes.
6. In general, make sealed joints not less than 1/8" wide, and stuff with backer rod to shape sealant bead properly, at 1/4" depth.
7. Shape exposed surfaces of sealant slightly concave, with edges flush with faces of material joint.
8. At internal-corner joints, apply sealant or gasket to form a sanitary cove, of not less than 3/8" radius.
9. Provide sealant-filled or gasket joints up to 3/8" joint width; metal closure strips for wider joints, with sealant application each side of strips. Anchor gaskets mechanically or with adhesives to prevent displacement.

3.3 CLEANING:

- A. After completion of installation, and completion of other major work in Food Service areas, remove protective coverings, if any, and clean Food Service Equipment, internally and externally.
- B. Restore exposed and semi-exposed finishes to remove abrasions and other damages; polish exposed-metal surfaces; touch-up painted surfaces. Replace work that cannot be successfully restored.
- C. Remove and dispose off site any and all crating and packaging material.

3.4 TESTING AND START-UP:

- A. Delay the start-up of equipment until service lines have been tested, balanced, and adjusted for pressure, voltage and similar consideration; and until water and steam lines have been cleaned and treated for sanitation.
- B. Test each item of operational equipment to demonstrate that it is operating properly, and that controls and safety devices are functioning. Repair or replace equipment that is found to be defective in its operation, including units that are below capacity or operating with excessive noise or vibration.
- C. Final Cleaning: After testing and start-up, clean and sanitize the Food Service Equipment, and leave in a condition ready for use in food service.

3.5 INSTRUCTIONS AND TRAINING:

- A. Instruct the owner and any and all representatives of the owner in the proper operation and maintenance of each piece of operational equipment.

3.6 WARRANTY:

- A. Each item is to include a parts and labor warranty of no less than one year, and longer as standard to the manufacturer's warranty.

3.7 INSTALLATION SCHEDULE:

- A. Bidder is to review the projected construction schedule with the General Contractor prior to bidding and be able to accomplish the installation of the Food Service Equipment within the requirements of the project schedule.

3.8 BIDDING FORMAT:

- A. Bidder will provide a completed bid form for each section of work being bid, as per the General Conditions of this specification.
- B. The successful bidder will be required to submit an itemized list with individual costs for each piece of equipment included in the bid. Freight is to be included in the itemized cost for each item. Installation costs are to be itemized separately. A total amount is to be listed that includes all costs to complete the work.
- C. Change orders requested by the owner or required by job conditions to add to the equipment requirements are to be on a 'cost plus' basis. Bidder is to submit a proposal for a percentage amount that will be applied to equipment costs for all change orders.
- D. Change orders to delete equipment items will be directly related to the itemized costs breakdown provided.

3.9 DISCREPANCIES:

- A. Any discrepancies or errors located or identified in or between the specifications and plans are to be brought to the attention of the designer in writing prior to, or with the bid submittal. Any such item not identified which would cause the bid to increase, will be the responsibility of the bidder to correct.

3.10 ACCEPTABLE SUBSTITUTE MANUFACTURERS:

- A. The items listed are to be bid as specified. Manufacturers requesting to be approved as an equal substitute are to submit their request in writing to the Food Service Consultant for consideration at least (7) days prior to the bid date. Manufacturers will be considered approved and will be accepted as part of the bid only after being stated as such in writing in the form of an addendum and will be accepted only if they equally meet the specifications and standards of the specified manufacturer. A list of approved substitute manufacturers is to be submitted with the successful bidders itemized equipment list.
- B. The bidder is solely responsible to insure that the requirements of any alternate or approved equal manufacturer's piece of equipment provided by them, comply with the design intent of these documents including physical size, utility requirements and function.

3.11 EXCLUSIONS:

- A. The Owner reserves the right to exclude any and all items from the final contract.

PART 4 - ITEMIZED LIST OF EQUIPMENT

ITEM #K-01	STAINLESS STEEL SERVING COUNTER
Quantity:	(1) each
Manufacturer:	Custom Fabricated
Model Number:	Custom
Dimensions:	24'-0"W x 3'-0"D x 34"H.
Utilities:	None
Accessories:	<ul style="list-style-type: none"> A) Finished all sides. B) Solid stainless steel top as per plan and detail. C) Unit includes: Install (2) Hot Food Warmer, item #K-3, into unit as per plans and details. D) Provide apron and bottom shelf with turned up back at Hot Food Warmers, item #K-03. Provide bottom and intermediate shelf with turned up back at other locations, as per plans details. E) Install controls in apron panel in front of Food Warmer, item #K-3. F) Adjustable bullet feet. G) Removable stainless steel base plate attached to counter feet at front and sides. H) Extend stainless steel top over serving counter low wall as per as per plans and details. I) Provide finished stainless steel back panel across width of counter.
Installation Notes:	<ul style="list-style-type: none"> A) Set and level as per plan. B) Mount Food Guard, item #K-2, to unit as per plan and details. C) Build-in drop-in Hot Food Warmers, item #K-3, as per plans and details.
ITEM #K-02	FOOD GUARD SERVING SHELF
Quantity:	(2) each
Manufacturer:	BSI
Model Number:	ZGuard #ZG9500
Dimensions:	9'-6"W x 1'-11"H. (1) 4'-6"W and (2) 2'-6"W. Verify with field measurements.
Utility Requirements:	None
Accessories:	<ul style="list-style-type: none"> A) Three section adjustable front food shields in stainless steel finish at Serving Counter, item #K-01, as per plans and details. B) Stainless steel under-counter heavy-duty flange supports mounted through counter top to base counter structure. C) 1" Radius corners, 3/8" Tempered Glass
Installation Instructions:	<ul style="list-style-type: none"> A) Build onto Service Counters, item #K-01.

ITEM #K-03

HOT FOOD WELLS: TWO SECTION

- Quantity: (2) each
 Manufacturer: Hatco
 Model Number: #HWBI-S2MA
 Dimensions: 46"W x 16"D x 10"H
 Utilities:
- A) 1" indirect drain to floor sink.
 - B) 208/60/3, 10.1 Amp.
 - C) 1/2" back flow prevented hot water
- Accessories:
- A) Drain manifold with one exit to left and one exit to the right as per the plan. Provide with quarter turn ball valve **in easily accessible location at the front face of the back of the counter.**
 - B) Individual thermostat controls.
 - C) Wet or dry operation per compartment.
 - D) Mount controls to back apron of Counter, item #K-01.
 - E) Auto fill with rollover to each adjacent compartment
- Installation Notes:
- A) Build into Service Counter, item #K-01, as per plan.
 - B) Install utilizing the ribbon putty gasket provided with the item as per manufacturer's requirements.**
 - C) Apply silicone only if required by the Health Department. If required, apply as a very fine mini bead.**
 - D) Install to counter utilizing the EZ Cam Lock squeezing the ribbon putty gasket into place.**

ITEM #K-04

STAINLESS STEEL WATER SHROUD CHANNEL

- Quantity: (1) each
 Manufacturer: Custom Fabricated
 Model Number: Custom
 Dimensions: 2"W x 2"D x 7'-0" (Verify with ceiling height.
 Utilities: None
 Accessories:
- A) Finished all sides.
 - B) Stainless steel "U" channel mounted to wall with stainless steel "U" channel to be placed over wall channel and secured to wall channel.
 - C) Provide 90 degree turn at bottom to run water feed into counter base.
 - D) Top to be open and extend through ceiling with finished flange at penetration.
- Installation Notes:
- A) Mount at wall and opening of serving counter as per plan and elevation.
 - B) Mount wall channel to allow Plumber Contractor to install the water line and then mount top cover. Coordinate requirements of Plumbing Contractor.

ITEM #K-05

STAINLESS STEEL ELECTRICAL SHROUD CHANNEL

Quantity: (1) each
Manufacturer: Custom Fabricated
Model Number: Custom
Dimensions: 2"W x 2"D x 7'-0" (Verify with ceiling height.
Utilities: None
Accessories: A) Finished all sides.
B) Stainless steel "U" channel mounted to wall with stainless steel "U" channel to be placed over wall channel and secured to wall channel.
C) Provide 90 degree turn at bottom to run electrical conduit into counter base.
D) Top to be open and extend through ceiling with finished flange at penetration.

Installation Notes: A) Mount at wall and opening of serving counter as per plan and elevation.
B) Mount wall channel to allow Electrical Contractor to install the water line and then mount top cover. Coordinate requirements of Electrical Contractor.

END OF SECTION 114000