



THE SCHOOL DISTRICT OF  
PHILADELPHIA

BOARD OF EDUCATION  
Office of Capital Programs  
440 North Broad Street, 3<sup>rd</sup> Floor – Suite 371  
Philadelphia, PA 19130

TELEPHONE: (215) 400-4730

**Addendum No. 1**

**Subject: SDP Contracts No. B-11 C, B-112 C, B-113 C and B-114 C of 2017/18  
Major Renovation and Addition**

**Location: Richmond Elementary School**

---

**This Addendum, dated November 4, 2019, shall modify and become part of the Contract Documents. Any items not mentioned herein, or affected by, shall remain strictly in accordance with the original document.**

---

**The attached Technical Specification Sections 11\_4000 FOOD SERVICE EQUIPMENT and 11 6223 GYMNASIUM EQUIPMENT are included in the Bidding and Contract Documents**

**End of Addendum #1**

**ATTACHMENTS:**

**11 4000 FOOD SERVICE EQUIPMENT-84 pages  
11 6223 GYMNASIUM EQUIPMENT-4 pages**

## SECTION 11 4000 – FOODSERVICE EQUIPMENT

### PART 1 GENERAL

#### 1.1 SCOPE

- A. The work referred to in this section consists of furnishing all labor and material required to provide and deliver all equipment hereinafter specified into the building, uncrate, assemble, hang, set in place, level, and completely install, exclusive of final utility connections.
- B. Coordinate but do not install (unless specifically directed to do so in the technical specifications) Owner and Vendor-supplied equipment noted on the drawings or in the specifications as NIKEC. Show on roughing in plans the sizes, utilities, and other requirements as furnished in the Specifications, by Owner or appropriate supplier in submittals as if the equipment is contractor furnished.
- C. Coordinate and show sizes, utilities, and other requirements as determined by physical inspection for equipment noted as existing to be reused. Include costs for marking, removing, storing, cleaning, redelivering and installing such equipment. All requirements within the project manual apply to reused equipment except warranty as if contractor furnished including but not limited to code compliance and accessories necessary to conform with the new application.

#### 1.2 SUBMITTALS

- A. Upon award of Contract, furnish the Architect with reproducible copies of the following drawings, in accordance with the approved project schedule, which shall be made on sheets equal in size and matching the bid set drawing size. Reproduced copies of bid documents will not be accepted for this purpose in any fashion.
  - 1. Equipment specified for fabrication shall be detailed and fully dimensioned to a minimum scale of  $3/4" = 1' 0"$  (1:20) for plan and elevation views and  $1 1/2" = 1' 0"$  (1:10) for sections.
  - 2. Prepare separate electrical and mechanical dimensioned rough in drawings at  $1/4" = 1' 0"$  (1:50) showing exact point of penetration of floors, walls, and ceilings for all services required to operate the equipment that the Contractor shall furnish, including the requirements for Contractor supplied and installed refrigerant and beverage piping line runs. These drawings shall also show exact locations of final connections to equipment. Indicate floor drains, floor sinks, receptacles, lights, and other special conditions related to the equipment known to the Contractor but provided under other Sections.
  - 3. Dimensioned drawings shall be submitted showing the location and size of all bases, depressions, grease interceptors, special height walls, openings in walls for

equipment or operations, and critical dimensions, etc. Drawings shall be drawn to a scale of not less than 1/4" = 1' 0" (1:50).

- B. **Manufacturers' Data:** Upon award of Contract, submit bound copies of Manufacturers' Illustrations and Technical Data to the Architect for review prior to procurement. Items of Standard Manufacture shall be submitted, including items purchased to be built into fabricated equipment. Each illustration shall be marked to describe accurately the item to be furnished as specified, including voltage, phase, load, accessories, etc.
- C. **Manufacturers' List:** Submit in writing a list of all manufacturers' representatives of the foodservice equipment, such as convection ovens, ranges, etc., and their authorized service agencies' addresses and telephone numbers.
- D. **Foundation Data:** Data and drawings shall be submitted for each item, if any, requiring special foundations, structures, or supports. Such foundations, structures, or supports will be provided and installed by other appropriate trades in accordance with the drawings and specifications which shall be provided by the Contractor and reviewed by the Architect.
- E. **Operation and Maintenance Manuals:** Provide three bound copies of operation, maintenance, and parts manuals for all equipment items of standard manufacture including standard component assemblies built into all custom-fabricated items.
- F. **Review by the Architect** of the drawings and brochures submitted by the Contractor does not waive the responsibility of the Contractor to furnish each item of equipment in complete compliance with the specifications and contract drawings.
- G. The number of copies of all submittals shall be as determined by the Architect.

### 1.3 QUALITY ASSURANCE

- A. **Standard Products:** Materials, products, and equipment furnished under this contract shall be the standard items of manufacturers regularly engaged in the production of such materials, products, and equipment and shall be of the manufacturers' latest design that complies with the specifications.
- B. **Manufacturers' Qualifications:** Manufacturers shall be regularly engaged in the production of the items furnished and shall have demonstrated the capability to furnish similar equipment that performs the functions specified or indicated herein.
- C. **Installation Qualifications:** Contractor shall use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work defined in this Section.
- D. **Coordination of Work:** Coordinate work with the respective trades performing preparatory work for installation of equipment under this Contract, including, but not limited to:

construction of pits, trenches, receptors; rough-in of supply, waste and vent piping; electrical connections; and field verification of dimensions.

- E. Product Options: Drawings indicate foodservice equipment based upon equipment specified herein. All substitutions shall be in compliance with the requirements in Division 1 (or Section I if appropriate.).
- F. Conflict: Where written specifications and drawings conflict or appear to conflict, request clarification. Prior to receiving clarification use the greater quality or greater quantity.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver foodservice equipment in containers designed to protect equipment and finish until final installation. Make arrangements to receive equipment at project site at a time and place agreed with the General Contractor. If the site is not ready for delivery, then either delay delivery or arrange to hold in a secure and protected warehouse until delivery can be made to job site.
- B. Store foodservice equipment in original containers and in location to provide adequate protection to equipment while not interfering with other construction operations. Coordinate with other trades so that worktables, serving counters and equipment are not used for scaffolding or as workbenches.
- C. Handle foodservice equipment carefully to avoid damage to components, enclosures, and finish. Do not install damaged foodservice equipment; replace and return damaged components to equipment manufacturer.

#### 1.5 APPLICABLE CODES AND STANDARDS

- A. Except as otherwise indicated, each item of equipment shall comply with the latest current edition of the following standards as applicable to the manufacture, fabrication, and installation of the work in this section. Comply with all Federal, State, and Municipal regulations and notifications which bear on the execution of this work. Call to the attention of the Owner in writing any design conflict with the requirements of the Americans with Disabilities Act (ADA) during Bid Process so resolution can be effected prior to Contract Award.
  - 1. NSF Standards: Comply with applicable National Sanitation Foundation standards and criteria and provide NSF "Seal of Approval" on each manufactured item and on major items of custom fabricated work.
  - 2. UL / ETL / CSA Standards: For electrical components and assemblies, provide either UL / ETL / CSA listed products or, where no listing service is available, provide a complete index of the components used as selected from the UL / ETL / CSA "Recognized Component Index." For fire extinguishing systems comply with UL 300.
  - 3. ANSI Standards: Comply with applicable ANSI standards for electric-powered and gas burning equipment; for piping to compressed-gas cylinders; and for plumbing

fittings, including vacuum breakers and air gaps, to prevent siphonage in water piping.

4. AGA / CGA: All gas-fired equipment shall be AGA / CGA approved, equipped to operate on the type gas available at the job site, and shall contain 100% automatic safety shut off devices.
5. NFPA Standards: Comply with NFPA Bulletin 96 for exhaust systems; with NFPA Bulletins 13, 17, 17A and 96 for fire extinguishing systems; and with NFPA 54, National Fuel Gas Code and NFPA 70, National Electrical Code.
6. ASME Code: Comply with ASME boiler code requirements for steam-generating and steam-heated equipment; provide ASME inspection, stamps, and certification of registration with National Board.
7. SMACNA Guidelines: Provide seismic restraints for food service equipment to comply with the Sheet Metal and Air Conditioning Contractors National Association's (SMACNA) "Kitchen Equipment Fabrication Guidelines", appendix 1, "Guidelines for Seismic Restraints of Kitchen Equipment", unless otherwise indicated.
8. ASHRAE: Provide mechanical refrigeration systems complying with the American Society of Heating, Refrigerating and Air Conditioning Engineers' ASHRAE 15, "Safety Code for Mechanical Refrigeration".

#### 1.6 PROJECT CONDITIONS

- A. Visit the job site to field check actual wall dimensions and roughing in and be responsible for furnishing, fabricating, and installing the equipment in accordance with the available space and utility services as they exist on the job site for an accurate fit.
- B. Check all door openings, passageways, elevators, etc., to be sure that the equipment can be conveyed to its proper location within the building and, if necessary, check with the Contractor regarding the possibility of holding wall erection, placement of doorjambs, windows, etc., for the purpose of moving the equipment to its proper location. Any removal and rebuilding of walls, partitions, doorjambs, etc., necessary to place the equipment or, if caused by incorrect information on the Contractor's drawings, shall be done at the expense of the Contractor.
- C. Physically check the location and utility size of all "rough ins" at the job site for compatibility with the equipment being installed before finished floors, walls, and/or ceilings are in place.
- D. Check electrical characteristics and water, steam, and gas pressure. Provide pressure-regulating valves where required for proper operation of equipment.

#### 1.7 GUARANTIES AND WARRANTIES

- A. Self contained or remote refrigeration systems furnished under this Contract shall be provided with start up and a one-year service contract providing free service, 24 hours per day, seven days per week, including parts and labor. Hermetic or semi hermetic compressors shall be covered by the manufacturers' factory warranty for an additional

four years. Other equipment provided shall include a one-year warranty covering parts and labor, plus any extended warranties as normally provided by individual manufacturers. Equipment including refrigeration systems both self-contained and remote shall be warranted by the Contractor on the project for one year as indicated in the preceding sentence. The first day of the first year commences upon the issuance of a certificate of occupancy for each area.

## PART 2 PRODUCTS

### 2.1 GENERAL

- A. The equipment and its component parts shall be new and unused. All items of standard manufactured equipment shall be current models at the time of delivery. Parts subject to wear, breakage, or distortion shall be accessible for adjustment, replacement, and repair.
- B. Means shall be provided to ensure adequate lubrication for moving parts. Oil holes, grease fittings, and filler caps shall be accessible without the use of tools.
- C. Plastic nameplates, to identify controls on fabricated equipment and when specified elsewhere, shall be provided of two-ply, 1/16" (2 mm), rigid plastic material which shall be specifically manufactured for engraving such nameplates. The finished nameplate shall be machine engraved with white letters on a black background and shall have edges beveled at a 45° angle. Nameplates shall be attached using an adhesive recommended by the manufacturer of the engraved material.
- D. The design of the equipment shall be such as to provide for safe and convenient operation. Covers or other safety devices shall be provided for all items of equipment presenting safety hazards. Such guards or safety devices shall not present substantial interference to the operation of the equipment. Guards shall provide easy access to guarded parts.
- E. Trim shall not be an acceptable substitute for accuracy and neatness. When trim is required and accepted by Architect in lieu of rejection of items of equipment, it shall be the Contractor's responsibility to provide same at no additional cost.
- F. Unless otherwise specified herein, no material lighter than #20 gauge shall be incorporated into the work. Gauges for sheet iron and sheet steel shall be U.S. Standard Gauges and finished equipment gauge thickness shall not vary more than 5% plus or minus from the thickness indicated below.

GAUGE	THICKNESS	GAUGE	THICKNESS
#10	0.1406" (3.0mm)	#16	0.0625" (1.6mm)
#12	0.1094" (2.5mm)	#18	0.0500" (1.25mm)
#14	0.0781" (2.0mm)	#20	0.0375" (1.0mm)

- G. Materials or work described in words which have a well-known and accepted technical or trade meaning shall be held to refer to such accepted meanings.

## 2.2 MATERIALS

- A. Submit a certified copy of the mill analysis of materials if requested by the Architect.
- B. Stainless steel sheets shall conform to American Society for Testing and Materials (ASTM), specification A240, Type 304 Condition A, 18 8, having a No. 4 finish. A No. 2B finish shall be acceptable on surfaces of equipment not exposed to view. Sheets shall be uniform throughout in color, finish, and appearance.
- C. Stainless steel tubing and pipe shall be Type 304, 18 8, having a No. 4 finish, and shall conform to either ASTM A213 if seamless or ASTM A249 if welded.
- D. Rolled shapes shall be of the cold-rolled type conforming to ASTM A36.
- E. Galvanized sheet steel shall conform to ASTM A526; where extensive forming to take place, conform to ASTM A527; conform to ASTM A525, coating designation G115, chemical treatment.
- F. Galvanized steel sheets shall be cold rolled, stretcher leveled, bonderized, and rerolled to ensure a smooth surface.
- G. Castings shall be corrosion-resisting metal containing not less than 30% nickel. Castings shall be rough ground, polished, and buffed to bright luster and free from pit marks, runs, checks, burrs, and other imperfections. In lieu of corrosion- resisting metal castings, die stamped or cast 18 8 stainless steel will be acceptable.
- H. Millwork materials shall be free from defects impairing strength, durability, or appearance; straight and free from warpage; and of the best grade for their particular function. Wood shall be well seasoned and kiln dried and shall have an average moisture content of 8%, a maximum of 10%, and a minimum of 5%.
  - 1. Plywood and other woodwork of treatable species, where so required by the code, shall be fire retardant treated to result in a flame spread rating of 25 or less with no evidence of significant progressive combustion when tested for 30 minutes duration under ASTM E84 and shall bear the testing laboratory mark on a surface to be concealed.
  - 2. Concealed softwood or hardwood lumber shall be of poplar, Douglas fir, basswood, red oak, birch, maple, beech, or other stable wood and shall be select or better grade, unselected for color and grain, surfaced four sides, square-edged, and straight. Basswood may be used where fire retardant treated materials are required.
  - 3. Plywood for transparent finish shall conform to U.S. Product Standard PS 51 71, Type I (fully waterproofed bond), with architectural grade face veneers of species as specified, free of all pin knots, patches, color streaks and spots, sapwood, and other defects. Plywood designated to have plywood cores shall be of either 5 ply or 7 ply construction. Plywood so designated on the drawings and plywood not otherwise shown shall have a particleboard core, cross banding of veneers, and face and back veneers. Particleboard cores shall have a 45-pound density, except where the fire - retardant treatment requires cores of lesser density.

4. Face veneers shall be matched for color and grain to produce balance and continuity of character. Mineral streaks and other discolorations, wormholes, ruptured grain, loose texture, doze, or shake will not be permitted. Face veneer leaves on each surface shall be full length, book matched, center matched, and sequence matched. Surfaces shall be sequenced and blueprint matched. Veneers not otherwise indicated shall be plain sliced. Backing veneers for concealed surfaces shall be of a species and thickness to balance the pull of the face veneers.
  5. Hardwood plywood for painted surfaces shall conform to U.S. Product Standard PS 51 71, Type I, and shall have sound birch, maple, or other approved close grain hardwood faces suitable for a paint finish.
  6. Perforated hardboard shall be a tempered hardboard, 1/4" (6 mm) thick, conforming to Federal Specification LLL B 810B, Type I, SIS, Finish B (primed), Design B (perforated), with 1/4" (6 mm) diameter holes spaced on 1" (25 mm) centers both ways.
  7. Plastic laminate surfaces shall be laminated with thermosetting decorative sheets of the color, pattern, and style as selected by the Architect. Horizontal surfaces shall be laminated with sheets conforming to Federal Specification L P 508F, Style D, Type I (general purpose), Grade HP, Class 1, 1/16" (2 mm) thick, satin finish, with rough sanded backs. Vertical surfaces shall be laminated with sheets conforming to Federal Specification L P 598F, Style D, Type II, (vertical surface), Grade HP, Class 1, non forming, satin finish, 1/32" (1 mm) thick or heavier. Surfacing for curved surfaces shall be laminated from sheets conforming to Federal Specification L P 508F, Style D, Type III (post forming), Grade HP, Class 1, satin finish. Balance sheets for backs in concealed locations shall be either reject material of the same type and thickness as the general purpose grade facing or may be .020" (0.5 mm) thick laminate backing sheets conforming to Federal Specification L P 00508E, Style ND, Type V (backing sheet), Grade HP.
  8. Adhesive for application of plastic laminate to wood substrates of counter tops shall be a phenolic, resorcinol, or melamine adhesive conforming to Federal Specification MMM A 181C and producing a waterproof bond. Adhesive for applying plastic laminate to vertical surfaces shall be either a waterproof type or a water resistant type such as a modified urea- formaldehyde resin liquid glue conforming to Federal Specification MMM A 188C. Contact adhesive will not be acceptable.
  9. Plywood for laminate assemblies shown or specified with plywood core shall be of the 5 or 7 ply construction with sanded close grain hardwood face and back veneers, laminated with waterproof glue, in thickness shown, conforming to U.S. Product Standard PS 51 71. Particle board for plastic laminate assemblies shown or specified with particle board wood core shall conform to U.S. Products Standard CS 236 66, Type 1 or 2, Grade B (45 pound density), Class 2; except where fire retardant treatment is required, the density shall conform to the treatment requirements.
- I. Sealant: ASTM C 920; type S, Grade NS, Class 25, use, NT. Provide elastomeric sealant, NSF certified for end use application indicated. Provide sealant that, when cured and washed, meeting requirements of Food and Drug Administration's 21 CFR, Section 177.2600 for use in areas that come in contact with food. Dow Corning #780 or General Electric "Silastic" or approved equal in either clear or approved color to match surrounding



surfaces and applied in accordance with sealant manufacturers' recommendations for smooth, sealed finish.

- J. Tempered Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), Class 1 (clear), Quality q3 (glazing select). Provide products complying with ANSI Z97.1, manufactured by horizontal (roller hearth) process and ¼" (6 mm) thick, unless otherwise indicated. Provide exposed safety edges, if any, seamed before tempering.
- K. Sound Dampening: NSF-certified, nonabsorbant, hard-drying, sound deadening coating. Provide coating compounded for permanent adhesion to metal in 1/8" (3 mm) thickness that does not chop, flake, or blister.

## 2.3 FINISHES

- A. Paint and coatings shall be of an NSF approved type suitable for use in conjunction with foodservice equipment. Such paint or coating shall be durable, non toxic, non dusting, non flaking, and mildew resistant; shall comply with all governing regulations; and shall be applied in accordance with the recommendations of the manufacturer.
- B. Exterior, galvanized parts, exposed members of framework, and wrought steel pipe where specified to be painted shall be cleaned, properly primed with rust-inhibiting primer, degreased, and finished with two (2) coats of epoxy-based grey hammertone paint, unless otherwise specified.
- C. Stainless steel, where exposed, shall be polished to a #4 commercial finish. Where unexposed, finish shall be #2B. The grain of polishing shall run in the same direction wherever possible. Where surfaces are disturbed by the fabricating process, such surfaces shall be finished to match adjacent undisturbed surfaces.
- D. Galvanized shelving shall not be painted.
- E. Fabricated equipment shall be spray coated with plastic suitable for protecting the equipment during transport and installation. The coating shall be easily removable and shall be removed after the equipment installation is complete at the work site or, alternatively, when directed by the Architect.
- F. Exposed surfaces on brass, bronze, or steel shall be plated with chromium over nickel in accordance with Federal Specifications WW P 541, Paragraph 9.5 and Table 9.4, unless otherwise specified.

## 2.4 ELECTRICAL AND MECHANICAL REQUIREMENTS

- A. Standard UL / ETL / CSA listed materials, devices, and components shall be selected and installed in accordance with NEMA Standards and recommendations and as required for

safe and efficient use and operation of the foodservice equipment without objectionable noise, vibration, and sanitation problems.

1. Provide recognized commercial grade signals, "on off" pushbuttons or switches, and other speed and temperature controls as required for operation of each item, complete with pilot lights and permanent engraved, plastic laminate signs and graphics identifying each item. Provide stainless steel cover plates at controls and signals.
2. Each item requiring electrical power shall be equipped with either a terminal box for permanent connection or with cord and plug for interruptible connection, as indicated. Provide NEMA standard grounding type plugs, where used.
3. Furnish foodservice equipment completely wired internally using wire and conduit suitable for a wet location, including a separate grounding wire. Provide electrical outlets and receptacles required to be mounted on or in fabricated equipment and interconnect to a suitable terminal box (sub-panel, starter, or disconnect switch if so specified) with all wires neatly tagged showing item number, voltage characteristics, and load information.
4. Receptacles for all wall- and floor-mounted outlets will be provided to be used for plug in equipment with characteristics as noted on the drawings. Provide Hubbell three-wire or four wire grounding type connectors and neoprene cords installed on each item of plug-in equipment to match receptacles provided.
5. Electrically heated equipment shall be internally wired to a thermostatic control and an "on off" red neon light indicator, which shall be mounted in a terminal box on a removable stainless steel access panel.
6. Only rigid steel zinc-coated conduit shall be used, painted to match adjacent surfaces where exposed. Wiring shall be run concealed wherever possible.
7. Provide on, or for, each motor driven appliance or electrical heating or control unit, a suitable control switch or starter of the proper type and rating.
8. Appliances shall be furnished complete with motors, driving mechanism, starters, and controllers, including but not limited to, master switches, timers, cut outs, reversing mechanism, and other electrical equipment if and as applicable. Wiring and connection diagrams shall be furnished with electrically operated machines and for electrically wired fabricated equipment.
9. Appliances shall be of rigid construction, free from objectionable vibration. Quietness of operation of all foodservice equipment is a requirement. Remove or repair any equipment producing objectionable noise and/or vibration as directed by the Architect.
10. Motors shall be of the drip proof, splash proof, or totally enclosed type, having a continuous duty cycle and ball bearings, except small timing motors which may have sleeve bearings. Motors shall have windings impregnated to resist moisture. Motors located where subject to deposits of dust, lint, or other similar matter from the machine on which installed shall be of the totally enclosed type. Motors shall have ample power to operate the machines for which designated under full load operating conditions without exceeding their nameplate ratings. Horsepower requirements on equipment shall be determined by the manufacturer, based on normal operation at maximum capacity. The nominal rated motor horsepower shall be not less than the horsepower required for normal operation of the equipment at maximum capacity. Insulation shall be NEMA Class B, or better.

11. Cover plates shall be furnished and installed for all electrical outlets, receptacles, switches, etc., to match the material and finish of the equipment to which they will be fastened.
  12. Switches, controls, etc., shall be conspicuously labeled as to use with plastic nameplates secured to the adjacent surface as previously specified in Article 2.01-C. Submit a sample for approval if requested by Architect.
  13. Where specified for custom fabricated equipment, provide compartment with electrical sub-panel which shall be pre-wired in conduit concealed in cabinet body construction and connected to all electrical components built into or set upon the counter. Electrical sub-panel shall be UL / ETL / CSA listed, 3-phase, 4-wire circuit breaker type with a ground buss main breaker and individual breakers for each serviced load. Buss shall be copper and the circuit breakers shall be the molded case, bolt-on type with thermomagnetic quick-make, quick-break trip. Multi-pole circuit breakers shall have an internal trip bar. The circuit breakers shall have an interrupting capacity of 10,000 amperes at 120 volts and there shall be a separate breaker for each connected load. Each breaker shall be sized for 125% of the connected load and a minimum of two (2) extra, single pole, 20 amp circuit breakers shall be provided. The loads shall be connected through the breakers in a phased sequence to balance the load on each phase.
- B. Water inlets shall be located above the positive water level wherever possible to prevent siphoning of liquids into the water supply system. Wherever conditions shall require a submerged inlet, a suitable type of check valve (except in jurisdictions where check valves are prohibited) and vacuum breaker shall be provided with the fixture to prevent siphoning. Where exposed, piping and fittings shall be chrome plated. Where vacuum breaker piping is through equipment, provide chrome -plated escutcheon plates to cover holes.
1. Provide and install indirect waste lines from equipment which will discharge into floor drains or safe wastes, chrome plated where exposed. Extend to a point at least 1" (25 mm) (or as required by local or state code) above the rim of the floor drain, cut bottom on 45-degree angle and secure in position.
  2. Horizontal piping lines shall be run at the highest possible elevation and not less than 6" (150 mm) above the floor, through equipment where possible.
  3. No exposed piping in or around fixtures or in other conspicuous places shall show tool marks or more than one thread at the fitting.
  4. Steam operating valves on or in fabricated and purchased foodservice equipment shall be provided with composition hand wheels, which shall remain reasonably cool in service.
  5. Provide suitable gas and liquid pressure-reducing valves for equipment with such components that might reasonably be expected to be affected over a period of time by adverse pressure conditions, including but not limited to dishwashers, booster heaters, coffee urns, ranges, steam boilers, etc.
- C. Provide and install complete refrigeration systems--charged, started, and operating properly--including, but not limited to:
1. Compressors, condensers, racks, coils, vibration eliminators, sight glasses (moisture indicating type), expansion valves, filters, oil separators, thermostats, defrost time clocks, all controls and control wiring, liquid line driers, piping, and

- refrigeration grade copper tubing with all sweat joints using Safety Silv No. 1200 or approved equal silver solder (with as few joints as possible)
2. Where specifications call for pre piped lines (i.e., from a fixture to a valve compartment, etc.), provide such work in strict conformance with other sections of the specifications which set forth standards for this type of work or in conformity with the requirements of the ASHRAE Standards or local authorities, whichever is the greater.
  3. Mechanically refrigerated cold pans shall have a normally closed liquid line electric solenoid valve installed before the expansion valve and wired to a silent type toggle switch complete with an "on off" red neon light indicator and both mounted in a terminal box on a removable access panel. This switch shall be fed by a separate control circuit and shall not to be wired into the compressor circuit so that it shall stop the flow of refrigerant to the cold pan and not turn off the compressor. The com-pressor shall then pump down and turn off through the action of the pressure control.
  4. Each refrigeration item specification is written to provide minimum specifications and scope of work. Refrigeration equipment shall be designed and installed to maintain the following general temperatures unless otherwise specified.
    - a. Refrigerators 1.7°C / 35°F
    - b. Freezers -23.3°C / -10°F
    - c. Cold Pan -17.8°C / 0°F
    - d. Work Rooms 10°C / 50°F
  5. Provide electrical and refrigeration components needed by the completed system and complete all refrigeration and control connections of and to said components.
  6. Provide evaporator coil defrost system on all walk-in refrigerator and freezer rooms where the refrigeration systems are designed to operate at room temperature of less than 35°F (1.7°C).
  7. Verify the requirements of and provide any or all additional refrigeration specialty(s) or component(s) required or recommended by the manufacturer for proper operation under the specific operating conditions and location of each system specified.
  8. Verify and provide manufacturer's certification (or certification by manufacturer's authorized agent) that the equipment selection hereinafter specified for each refrigeration system is properly sized and shall meet the operating requirements set forth for each system regarding maintaining specified operating temperature, hours of compressor running time, and system pressures and velocities as recommended by the equipment manufacturer(s).
  9. During check-out and initial operation, verify that:
    - a. Controls are properly adjusted.
    - b. Condensers are equipped with an overload protector.
    - c. Competent service mechanic is on site during the first eight (8) hours of operation.
    - d. Switches, starters, and controls are identified as to function.
  10. Unless otherwise specified, furnish thermometers for walk-in units mounted above the exterior entrance door with suitable length armored capillary tubes to allow the sensing bulbs to be installed in the incoming air stream to the blower coil with runs fastened to the walk-in walls to prevent it from damage. This identical requirement applies to alarm systems when specified.

## 2.5 PRODUCT SPECIFICATIONS

- A. Refer to Part 4 for complete itemized product specifications.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Begin installing the equipment at the time the building is ready to receive the equipment and in accordance with the schedule.
- B. Provide a competent foreman or supervisor for erection of equipment and to coordinate with other trades regarding connections, installation, and inspection. Coordinate delivery schedule to ensure adequate openings in the building to receive the equipment.
- C. Install refrigeration work in an approved manner, using first quality fittings, controls, valves, etc. Refrigeration items shall be started up, tested, adjusted, and turned over to the Architect in first-class condition and left operating in accordance with the manufacturer's specifications.
- D. Set equipment that rests on masonry bases, level onto a bed of silicone rubber sealant.
- E. Seal equipment that butts to a wall or against other equipment with silicone rubber sealant. Set trim strips or other items requiring fasteners in a bed of silicone rubber sealant and fastened with suitable stainless steel fasteners 48" (1200mm) or less on centers. Thoroughly clean and degrease all surfaces prior to the application of sealant.
- F. Install and interconnect electrical controls, switches, or other units which are separately furnished for field installation in or on equipment provided, unless otherwise specified.
- G. Install and wire refrigeration systems in strict conformance with the manufacturers' instructions and recommendations. Ensure that all refrigeration condensing units are ventilated properly and are accessible for repair, maintenance, and inspection.
- H. Hang evaporator coils per the manufacturer's recommendation at the locations as shown on the drawings. Mount units such that the drain pans are pitched to the drain lines. Hang the coils using nylon or other approved non-conductive, non-corrosive fasteners. Furnish #12 gauge galvanized steel fishplates of suitable size and shape on the exterior ceiling of the walk-in to spread the weight of the coils adequately. Connect coils to the condensing unit and install to constitute a complete working system capable of maintaining the interior temperatures specified regardless of the heavy usage the walk-in units may receive.
- I. Furnish and install a copper or PVC drain line painted silver from each coil outlet to a point 1" (25mm) above the floor drain. Trap drain lines immediately above the floor drain.

Provide continuous electrified heater tape for freezer drain lines, coordinate electrical requirements and wiring with electrical division. Insulate drain line after installation.

- J. Refrigeration tubing shall be the Type L, ACR hard drawn degreased, sealed copper and shall be installed with horizontal runs sloped 1" per 20 feet (1:240) toward the condensing units. Refrigerant piping shall be properly supported by adjustable hangers spaced and adjusted to the drop required. Where vertical runs of more than 5' (1500mm) occur in the suction line, trap the risers at the bottom. Install piping so that refrigerant or oil cannot drain back into the coils from the suction line.
- K. Insulate suction and refrigerant lines with minimum 1/2" (13mm) Armstrong armaflex or equal cellular type insulation. Provide metal pipe sleeves where piping passes through a wall, ceiling, or floor. Fill space around the tubing with mastic insulating compound. Install a permanent suction line filter in each compressor suction line with pressure fitting ahead of the filter to facilitate checking of pressure drop through the filter. Fully insulate and seal penetrations through walk-in cooler or freezer structures to be vapor tight to prevent condensation within any light fixtures, switch boxes, junction boxes, or any other fittings. Fully seal refrigeration and drain lines and provide escutcheon plates.
- L. Furnish and completely install a thermostat to control the refrigeration temperatures for each individual compartment.
- M. Mount the condensing units on a welded steel rack containing all accessories and components necessary to form a complete condensing unit package. Provide each condensing unit with a factory mounted, pre-wired control panel/disconnect switch complete with circuit breakers, contactors, and time clocks as required.
- N. Furnish the refrigeration systems with a one-year refrigeration service contract, covering all parts and labor, with service available seven days per week, 24-hours per day. Provide an option for continuation of the service contract after the first year. Warrant the refrigeration system for one year and provide the compressors with the manufacturer's extended five-year warranty.
- O. Furnish four (4) copies of complete remote refrigeration system control wiring and piping diagrams. Frame one (1) copy in Plexiglas and mount at compressor location or inside the refrigeration system enclosure as appropriate.
- P. Coordinate the equipment work with the respective work of other Sections so that electrical and mechanical components built into the equipment will conform and/or adapt to the type, materials, and characteristics of the building components.
- Q. Install heated and motor-driven equipment so as to operate efficiently. Provide additional vents, guards, deflectors, and other accessories as needed at no additional cost. Note such additions or modifications on the shop drawings and bring to Architect's attention by special accompanying letter.

### 3.2 FABRICATION

- A. Items of fabricated equipment shall be fabricated in the same factory and shall be similar in construction details, materials, methods, and appearance to similar types of items so fabricated under this contract.
- B. Each fabricated item of equipment shall include necessary reinforcing, bracing, and welding with the proper number and spacing of uprights and cross members for strength. Wherever standard sheet sizes will permit, the tops of all tables, shelves, exterior panels of cabinet type fixtures, and doors and drain boards shall be constructed of a single sheet of metal. Except where required to be removable, flat surfaces shall be secured to vertical and horizontal bracing members by welding or other approved means to eliminate buckle, warp, rattle, and wobble. Equipment not braced in a rigid manner and which is subject to rattle and wobble shall be unacceptable, and the Contractor shall add additional bracing in an approved manner to achieve acceptance.
- C. Suitable pipe slots shall be provided on fabricated equipment to accommodate service and utility lines and mechanical connections. These slots shall be of proper size and shall be neatly made with turned up edges around to eliminate cutting or defacing of equipment on the job. Cabinet bases shall be provided with an inner panel duct at the ends or rear of the cabinet allowing adequate space to conceal vertical piping. Such work, when performed at the job site, shall be of the same quality as similar work performed in the shop.
- D. Exposed surfaces shall be free from bolt and screw heads. When bolts are required, they shall be of the concealed type and be of similar composition as the metal to which they are applied. Where bolt or screw threads on the interior of fixtures are visible or may come into contact with hands or wiping cloths, they shall be capped with a stainless steel acorn nut and stainless steel lock washer.
- E. Where screw threads are not visible or readily accessible, they shall be assembled with stainless steel lock washers and nuts. Wherever bolts or screws are welded to the underside of trim or tops, the reverse side of the weld shall be finished uniformly with the adjoining surfaces. Depressions at these points shall not be acceptable.
- F. Rivets shall not be permitted in any location.
- G. Welding shall be the heliarc method with welding rod of the same composition as the sheets or parts welded. Welds shall be complete, strong, and ductile with excess metal ground off and joints finished smooth to match adjoining surfaces. Welds shall be free of mechanical imperfections such as gas holes, pits, cracks, etc., and shall be continuously welded so that the fixtures shall appear as one piece construction. Butt welds made by spot solder and finished by grinding shall not be acceptable.
  - 1. Spot welds shall have a maximum spacing of 3" (75mm). Tack welds shall be of at least 1/4" (6mm) length of welding material at a maximum space of 4" (100mm) from center to center. Weld spacing at the ends of the channel battens shall not exceed 2" (50mm) centers.
  - 2. In no case shall soldering be accepted.

3. Fixtures shall be shop fabricated of one piece and shipped to the job completely assembled wherever possible. Equipment too large to transport or enter the building as one piece shall be constructed so that the field joints can be welded at the job site.
  4. Exposed joints shall be ground flush with adjoining material and finished to harmonize therewith. Whenever material has been depressed by a welding operation, such depression shall be suitably hammered and peened flush with the adjoining surface and, if necessary, again ground to eliminate low spots. In all cases, the grain of rough grinding shall be removed by successive fine polishing operations.
  5. Unexposed welded joints on under shelves of tables or counters in stainless steel construction shall be suitably coated at the factory with an approved metallic-based paint.
  6. After galvanized steel members have been welded, welds and areas where galvanizing has been damaged shall have a zinc dust coating applied in conformance with U.S. Government Military Specification Number MIL P 26915.
- H. Butt joints and contact joints, wherever they occur, shall be close fitting and shall not require a filler. Wherever break bends occur, they shall be free of undue extrudence and shall not be flaky, scaly, or cracked in appearance; where such breaks do mar the uniform surface appearance of the material, such marks shall be removed by suitable grinding, polishing, and finishing. Wherever sheared edges occur, they shall be free of burrs, fins, and irregular projections and be finished to obviate danger of cutting or laceration when the hand is drawn over them. In no case shall overlapping materials be acceptable where miters or bull nosed corners occur.
- I. The grain of polishing shall run in the same direction on horizontal and on vertical surfaces of each item of fabricated equipment except in the case where the finish of the horizontal sections of each shall terminate in a mitered edge. Where sinks and adjacent drain boards are equipped with backsplash, the grain of polishing shall be consistent in direction throughout the length of the backsplash and sink compartment.
- J. Component parts, whether fabricated by the Contractor or purchased for building into the fabricated equipment, shall conform to the following.
- K. Bolts, screws, nuts, and washers shall be of steel, except where brass or stainless steel is fastened, in which case they shall be of brass or stainless steel, respectively. Where dissimilar metals are fastened, bolts, screws, nuts, and washers shall be of the higher grade metal. The spacing and extent of bolts and screws shall be such as to ensure suitable fastening and prevent buckling of the metals fastened.
- 3.3 CLEAN-UP
- A. At completion of the installation, clean up, lubricate, and adjust where necessary items of equipment provided and turn them over in first-class condition.
1. Where stainless steel surfaces are disturbed by the installation or fabricating process, such surface shall be finished to match adjoining undisturbed surfaces.



2. At the completion of the installation work, stainless steel shall be gone over with a portable polishing machine and buffed to perfect surfaces. Painted surfaces shall be carefully gone over and retouched as required.

### 3.4 START-UP TESTING AND COMMISSIONING

- A. Startup Services: Engage factory-authorized service representatives to perform startup services and to demonstrate and train Owner's maintenance personnel as specified below.
1. Coordinate food service equipment startup with service-utility testing, balancing, and adjustments. Do not operate steam lines before they have been cleaned and sanitized.
  2. Remove protective coverings and clean and sanitize equipment, both inside and out, and relamp equipment with integral lighting. Where applicable, comply with manufacturer's written cleaning instructions.
  3. Test each equipment item for proper operation. Repair or replace equipment that is defective in operation, including units that operate below required capacity or that operate with excessive noise or vibration.
  4. Test refrigeration equipment's ability to maintain specified operating temperature under heavy-use conditions. Repair or replace equipment that does not maintain specified operating temperature.
  5. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
  6. Test motors and rotating equipment for proper rotation and lubricate moving parts according to manufacturer's written instructions.
  7. Test water, drain, gas, steam, oil, refrigerant, and liquid-carrying components for leaks. Repair or replace leaking components.
  8. Train Owner's maintenance personnel on procedures and schedules related to startup and shutdown, troubleshooting, servicing, and preventive maintenance for each food service equipment item.
  9. Review data in the operation and maintenance manuals. Refer to Division 1 Section "Contract Closeout."
  10. Review data in the operation and maintenance manuals. Refer to Division 1 Section "Operation and Maintenance Data."
  11. Schedule training with Owner, through Architect, with at least 7 days' advance notice.

### 3.5 SEISMIC RESTRAINTS

- A. Install equipment in these contract documents according to the "SMACNA Guidelines for Seismic Restraint of Kitchen Equipment" in any State, province, or jurisdiction that has legislated this requirement as necessary for acceptance. This shall include:
1. Identifying these items on his submittal drawings, Plans, Elevations, and Sections.
  2. Showing required SMACNA methods of restraint on his submittal drawings.
  3. Referencing the appropriate detail(s).
  4. Obtain regulatory approval for all seismic engineering details.

- B. If no SMACNA detail exists for a particular situation, prepare and obtain approval for a special attachment detail:
1. Detail must be prepared by an engineer licensed by the State having jurisdiction over the project and accompanied by the supporting calculations used in the design.
  2. Verify that the restraint design is appropriate to the building's structural conditions and the surfaces to which the equipment will be secured.

#### **PART 4 ITEMIZED PRODUCT SPECIFICATIONS**

- A. Each model number includes the code \*C088 as a suffix. This code is known as the Specifier Identification System. It is not to be removed by the bidders. Its purpose is to identify the specifier to the vendors providing equipment in the event it is necessary to communicate questions, clarifications, and comments, from prior to bid award through final purchase. It is to be used on all correspondence including fax and email when communicating with manufacturer representatives and factories.
- B. All items listed on the contract drawings under the heading "Foodservice Equipment Schedule" shall be furnished in strict accordance with the foregoing specifications and with the following detailed item specifications:

### **\*\*\*MAIN KITCHEN\*\*\***

---

Item No. 1.01 Walk-In Complex	Tafco Custom*C088
-------------------------------	-------------------

#### Walk-In Complex

Matching metal trim strips and removable enclosure panels as required to adjoining wall and ceiling (9'0" AFF, Verify ceiling height in field)

Must meet EISA Requirements

Tafco walk-in combination provided under this specification shall be prefabricated, of modular design and construction.

Overall Walk-in (Freezer/Cooler): Size and Shape Per Plan

Panels shall be standard in 11 ½", 17 ¼", 23", 28 ¾", 34 ½", 40 ¼" and 46" widths and shall be interchangeable with like panels

Height of box with Floor, shall be 8' 6 1/2"H standard height w/4" recess, Corner panels shall be 90 degree angles with 12" exterior horizontal measurements.

Cooler Ceiling panels with U-Channel reinforcement

Panels shall consist of "foamed-in-place" urethane insulation sandwiched between interior and exterior metal "skin" which has been die-formed and gauged for uniformity in size. Edges of panels shall be "foamed-in-place" at time of fabrication. Each panel shall be completely filled with rigid "foamed-in-place" urethane insulation having a thermal conductivity (K factor) of .131 BTU / hr / square foot per degrees Fahrenheit per inch; and an overall coefficient of heat transfer (U factor) of not more than >.033. "R" factor shall be 32. Insulation shall have a 97% closed cell structured with an average in place density of 2.3 lbs. per cubic foot, and compression strength at yield point of 22 lbs. per square inch. Overall thickness shall be 4 inches.

Panels & TAFCO SWING door provided for this job meet and/or exceeds the 2016 NYC Energy Code

Assembly shall be accomplished by means of "Sure Locks" panel locking assemblies, and shall be "foamed-in-place" at the time of complete panel construction. These locks shall be activated by a hex wrench provided by Tafco. Access ports to locking devices shall be covered by snap caps located on the interior sides of the panels allowing erection from the inside.

All seams shall be provided with N.S.F. listed gaskets and shall be "foamed-in-place" to the male side of all panels, on both interior and exterior. These gaskets shall be impervious to stains, greases, oils, and mildew.

Finishes:

Exterior - 26ga Embossed White Galvalume

Interior Walls & Ceiling - 26ga Embossed White Galvalume.

Interior Floor - 5-Bar Tread foamed-in-place

Supply door panels as shown:

Supply door panel as shown. Each door panel shall consist of one 34" x 77" swing type entrance door with K1825 PRP. The door shall be flush and finished in and out to match the panel as selected in the previous specification. Doors and frame shall be listed by

Underwriters Laboratories. Each door shall be equipped with magnetic gasket, W-94 hydraulic door closure and W-29NC Latch and Locking Hasp. Hardware must have safety release for opening door from the inside. Door must be self-closing with two W-59 strap type cam-lift hinges, both with spring assist. Provide door section with a vapor proof light with LED lighting (centered over door), 24DT/light/digital thermometer switch, 115v pressure relief port, frame heaters (freezer), and power supply box. Norfab 14" x 14" viewport (heated in Freezer & non-heated in Cooler). All wiring shall be concealed on door section. Door leaf and frame shall be framed with PVC thermal, break trim, & Double Swing Polar-Pro Curtron (HIMI) Strip Door (by others).

Walk-in shall be fabricated to comply with N.S.F. #7. The N.S.F. label shall be affixed to the interior door frame for easy inspection. All vertical interior corners must be coved. Ceiling panels shall be a full 4" insulated thickness.

Fire rated panels: Panels shall be fabricated with a fire hazard classification according to ASTM E-84 (UL723) and shall have a flame spread rating of 25 or less with a certifying factory mutual (FM) label.

Accessories:

(2) Conduit to top of wall w/connector on end

(x) Removable Closure Panels- 26ga Embossed Galvalume on (1) 26' 11" Exposed Exterior Wall, (1) 12' 6-1/2" Exterior Wall, & (1) 3' 10" Exterior Wall (2'H) \*Please Verify

(1) 3" x 3" x 8' 6-1/2"H Angle Trim Strips- 26ga Embossed Galvalume \*Please Verify

(1) 6" x 8' 6-1/2"H Flat Trim Strip- 26ga Embossed Galvalume \*Please Verify

(5) 48" LED Lights (shipped loose) (field installed) ~ (3) in Cooler & (2) in Freezer  
\*Please Verify

Refrigeration Systems: By others

KEC to verify sizing requirements with jobsite conditions

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.02	Evaporator Coil, +35F	Coldzone CL6A117ADAEL*C088
---------------	-----------------------	----------------------------

Packaged Refrigeration System A, Item #1.06

Evaporator coil to be hung with non-corrosive, non-conductive fasteners, flush mounted to underside of walk-in ceiling

Approximate line run shall be verified by KEC

System shall be installed complete with all necessary components and accessories as described in Electrical and Mechanical Requirement Sections of General Conditions of Foodservice Equipment Specifications

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.03 Evaporator Coil, -10F	Coldzone CL6E077DDARE*C088
-------------------------------------	----------------------------

Packaged Refrigeration System B, Item #1.06

Evaporator coil to be hung from non-corrosive, non-conductive rods with 4" clearance to underside of walk-in ceiling, flush mounting is not acceptable

Kitchen Equipment Contractor to verify location of remote condenser under Item 33.01 and interconnect with evaporator coil.

Remote to Refrigeration System # to Item #

Approximate line run shall be verified by KEC

System shall be installed complete with all necessary components and accessories as described in Electrical and Mechanical Requirement Sections of General Conditions of Foodservice Equipment Specifications

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.04 Plastic Shelving Unit	Metro MQ*C088
-------------------------------------	---------------

MetroMax Q™ Shelf, open grid polymer with Microban® antimicrobial product protection, epoxy coat steel frame, (4) wedge connectors, NSF

Size and Shape Per Plan

MQ70UPE - MetroMax Q™ (PE) Post, 69-3/16"H, for use with stem casters, epoxy coated steel with built in Microban® antimicrobial product protection

(2) Qty per Unit, 5MPX - Stem Caster, swivel, 5"Diameter, 1-1/4"Wide face, high modulus donut wheel tread, 300 lb. capacity, NSF (donut bumpers included) (for use with all MetroMax posts & shelves)

(2) Qty per Unit, 5MPBX - Stem Caster, brake, 5"Diameter, 1-1/4"Wide face, high modulus donut wheel tread, 300 lb. capacity, NSF (donut bumpers included) (for use with all MetroMax posts & shelves)

KEC to verify field dimensions prior to ordering

Item No. 1.05 Dunnage Rack Cambro DRS480480\*C088

S-Series Dunnage Rack, slotted top, 3000 lb. load capacity, size per plan, x 12"H, polypropylene, one-piece, seamless double wall construction, includes (1) Camlink®, 4" square legs, speckled gray, NSF

KEC to verify field dimensions prior to ordering

Item No. 1.06 Refrigerated Rack System Coldzone MPL-2\*C088

Refer to Refrigeration shop drawing

Pre-engineered and factory assembled unit

KEC to verify location of remote indoor Package Refrigeration system and interconnect with evaporator coils

Approximate line run to be verified by KEC

System shall be installed complete with all necessary components and accessories as described in Electrical and Mechanical Requirement Section of General Conditions of Foodservice Equipment Specifications

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.07 Bun Pan Rack Channel AXD1830\*C088

Lifetime Tough Bun Pan Rack, Heavy Duty, mobile, 22"W x 26"D x 70"H, front load, open sides, 2" spacing, capacity (30) 18" x 26" bun pans, welded heavy duty aluminum construction, 5" x 2" heavy duty swivel plate casters with Zerk grease fittings, corrections approved, NSF, Made in USA (published shipping weight does not reflect 50lb. pallet)

/009 - Pan Stop, aluminum

/024 - Corner Bumpers (set of 4)

/5B - Caster Brakes, heavy duty (set of 2)

Item No. 1.08 Walk-in Freezer Tafco Custom\*C088

Refer to QF201 – Walk in Shop Drawing

Size and Shape Per Plan

Panels shall be standard in 11 ½", 17 ¼", 23", 28 ¾", 34 ½", 40 ¼" and 46" widths and shall be interchangeable with like panels

Height of box with Floor, shall be 8' 6 1/2"H standard height w/4" recess, Corner panels shall be 90 degree angles with 12" exterior horizontal measurements.

Cooler Ceiling panels with U-Channel reinforcement

Panels shall consist of "foamed-in-place" urethane insulation sandwiched between interior and exterior metal "skin" which has been die-formed and gauged for uniformity in size. Edges of panels shall be "foamed-in-place" at time of fabrication. Each panel shall be completely filled with rigid "foamed-in-place" urethane insulation having a thermal conductivity (K factor) of .131 BTU / hr / square foot per degrees Fahrenheit per inch; and an overall coefficient of heat transfer (U factor) of not more than >.033. "R" factor shall be 32. Insulation shall have a 97% closed cell structured with an average in place density of 2.3 lbs. per cubic foot, and compression strength at yield point of 22 lbs. per square inch. Overall thickness shall be 4 inches.

Panels & TAFCO SWING door provided for this job meet and/or exceeds the 2016 NYC Energy Code

Assembly shall be accomplished by means of "Sure Locks" panel locking assemblies, and shall be "foamed-in-place" at the time of complete panel construction. These locks shall be activated by a hex wrench provided by Tafco. Access ports to locking devices shall be covered by snap caps located on the interior sides of the panels allowing erection from the inside.

All seams shall be provided with N.S.F. listed gaskets and shall be "foamed-in-place" to the male side of all panels, on both interior and exterior. These gaskets shall be impervious to stains, greases, oils, and mildew.

Finishes:

Exterior - 26ga Embossed White Galvalume

Interior Walls & Ceiling - 26ga Embossed White Galvalume.

Interior Floor - 5-Bar Tread foamed-in-place

Supply door panels as shown:

Supply door panel as shown. Each door panel shall consist of one 34" x 77" swing type entrance door with K1825 PRP. The door shall be flush and finished in and out to match the panel as selected in the previous specification. Doors and frame shall be listed by Underwriters Laboratories. Each door shall be equipped with magnetic gasket, W-94 hydraulic door closure and W-29NC Latch and Locking Hasp. Hardware must have safety release for opening door from the inside. Door must be self-closing with two W-59 strap type cam-lift hinges, both with spring assist. Provide door section with a vapor proof light with LED lighting (centered over door), 24DT/light/digital thermometer switch, 115v pressure relief port, frame heaters (freezer), and power supply box. Norfab 14" x 14" viewport (heated in Freezer & non-heated in Cooler). All wiring shall be concealed on door section. Door leaf and frame shall be framed with PVC thermal, break trim, & Double Swing Polar-Pro Curtron (HIMI) Strip Door (by others).

Walk-in shall be fabricated to comply with N.S.F. #7. The N.S.F. label shall be affixed to the interior door frame for easy inspection. All vertical interior corners must be coved. Ceiling panels shall be a full 4" insulated thickness.

Fire rated panels: Panels shall be fabricated with a fire hazard classification according to ASTM E-84 (UL723) and shall have a flame spread rating of 25 or less with a certifying factory mutual (FM) label.

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.09 Open Number	*C088
---------------------------	-------

Item No. 1.10 Open Number	*C088
---------------------------	-------

Item No. 1.11 Open Number	*C088
---------------------------	-------

Item No. 1.12 Open Number	Custom *C088
---------------------------	--------------

Item No. 1.13 Hand Sink	Advance Tabco 7-PS-82*C088
-------------------------	----------------------------

Hand Sink, wall mounted, 14" wide x 10" front-to-back x 5" deep bowl, 20 gauge 304 stainless steel, splash mounted gooseneck faucet, knee valve, soap & towel dispenser, basket drain, wall bracket, NSF, cCSAus



K-08 - Low-flow aerator 0.5gpm, fits 55/64-27 male or 15/16-27 female thread on spout, conforms to California AB 1953

7-PS-14 - P-trap, 1-1/2", 22 gauge

7-PS-17 - Welded Side Splash, 7-3/4"H (installed height), both sides, for hand sinks with 14" wide x 10" front-to-back bowl, splash mounted faucets

Item No. 1.14	Open Number	*C088
---------------	-------------	-------

Item No. 1.15	Floor Trough	Custom Detail 6.03*C088
---------------	--------------	-------------------------

Size and shape per Plan and Detail 6.03

KEC to coordinate proper location of floor trough to ensure that it fits in entry way into dishwasher location and is flush with the floor

KEC to provide shop drawings for review and approval prior to fabrication

Item No. 1.16	Pot & Pan Washer	Champion PP-20*C088
---------------	------------------	---------------------

Pot & Pan Washer, rack type, dual rack, front load design, built-in, 70 degree rise, booster heater, tank heat, 7.5 HP pump motor, jet spray arms, manual controls, external wash down hose with spray nozzle, (1) stainless steel utensil racks with (2) hold down lids, (2) stainless steel inserts for bun/sheet pans, all stainless steel construction

- Single point electrical connection
- Utensil rack with hold down lid, stainless steel (each)
- Tray/Sheet Pan Rack

Item No. 1.17	Open Number	*C088
---------------	-------------	-------

Item No. 1.18	Trash Container	Rubbermaid FG262000GRAY*C088
---------------	-----------------	------------------------------

ProSave® BRUTE® Container, without lid, 20 gallon, 19-1/2"D x 22-7/8"H, round, reinforced rims, built in handles, double rimmed base, high-impact plastic construction, gray, NSF, Made in USA

FG261960GRAY - BRUTE® Container Lid, 19-7/8"D x 1-1/4"H, for 20 gallon trash can, heavy duty plastic, gray , NSF, Made in USA

FG264043BLA - BRUTE® Quiet Dolly, 18-1/4"D x 6-5/8"H, non-marking casters, black, NSF, Made in USA

FG264043BLA - BRUTE® Quiet Dolly, 18-1/4"D x 6-5/8"H, non-marking casters, black, NSF, Made in USA

**Item No. 1.19 Recycling Container Rubbermaid FG262000BLUE\*C088**

ProSave® BRUTE® Container, without lid, 20 gallon, 19-1/2"D x 22-7/8"H, round, reinforced rims, built in handles, double rimmed base, high-impact plastic construction, blue, NSF, S.O.S. (Special Order Smallwares) product; see SOS document for details, Made in USA

FG261960WHT - BRUTE® Container Lid, 19-7/8"D x 1-1/4"H, for 20 gallon trash can, heavy duty plastic, white, S.O.S. (Special Order Smallwares) product; see SOS document for details, NSF, Made in USA

FG264000BLA - Brute® Dolly, 18-1/4"D x 6-5/8"H, heavy duty 3" casters, 250 lb. capacity, for 2620, 2632, 2643, 2655, black, S.O.S. (Special Order Smallwares) product; see SOS document for details, NSF, Made in USA

**Item No. 1.20 Open Number CC088**

**Item No. 1.21 Open Number \*C088**

**Item No. 1.22 Condensate Hood Caddy Custom\*C088**

Size and Shape Per Plan

KEC to ensure condensate hood captures entire range of exhaust for the Item 1.16 – Pot & Pan Washer

KEC to provide shop drawing for review and approval prior to fabrication

**Item No. 1.23 Mop Sink Cabinet Advance Tabco 9-OPC-84DR-300\*C088**

Cabinet with Mop Sink, 50-3/8"W x 22-5/8"D x 84"H, double hinged doors, 12" deep mop sink in base on right, storage for mop bucket to roll in on left, (2) mop holders, (4) fixed intermediate shelves (3 on left, 1 on right above sink), slotted side panels for ventilation, type 300 stainless steel construction (cabinet & sink)

**Item No. 1.24 Three-Compartment Sink Custom Detail 3.01\*C088**

Size and shape per Plan, Elevation 1A, and Detail 3.01 with sound deaden top

KEC to provide shop drawings for review and approval prior to fabrication

**Item No. 1.24A Disposer InSinkErator SS-200-15A-CC101\*C088**

SS-200™ Complete Disposer Package, with 15" diameter bowl, 6-5/8" diameter inlet, with removable splash baffle & reversible bowl cover, 2 HP motor, stainless steel construction, includes syphon breaker, solenoid valve, flow control valve, programmable CC-101 control center, auto reversing, timed run, post flush, adjustable leg kit

SYPHON STD - Syphon breaker standard, 1/2" (11477)

DEJAMWRENCH - Dejamming wrench, fits 6-5/8" opening only (Not for use with throat guard) (13993)

KEC to mount to Item 1.24 – Three Compartment Sink

**Item No. 1.25 Tubular Shelving John Boos BHS1660-T\*C088**

Shelf, tubular, wall mount, 60"W x 16"D, includes end brackets, 16/300 stainless steel

KEC to verify size requirements prior to ordering

**Item No. 1.26 Pre-Rinse Unit with Faucet T&S Brass B-0133-12CRBJST\*C088**

EasyInstall Pre-Rinse Unit, 8" wall mount, add on faucet 12" swivel nozzle, ceramic cartridges with check valves, lever handles, 24" riser, 44" flexible stainless steel hose, 1.07 GPM, accessory fitting, wall bracket, low lead, NSF ( B-0230-K)

**Item No. 1.27 Wall Sheathing Custom Detail 8.02\*C088**

Custom fabricated per Plan, Elevation 1A, and Detail 8.02.

KEC to provide shop drawing for review and approval prior to fabrication.

**Item No. 1.28 Compost Container Rubbermaid FG262000DGRN\*C088**

ProSave® BRUTE® Container, without lid, 20 gallon, 19-1/2"D x 22-7/8"H, round, reinforced rims, built in handles, double rimmed base, high-impact plastic construction, dark green, NSF, S.O.S. (Special Order Smallwares) product; see SOS document for details, Made in USA

FG261960DGRN - BRUTE® Container Lid, 19-7/8"D x 1-1/4"H, for 20 gallon trash can, heavy duty plastic, dark green, S.O.S. (Special Order Smallwares) product; see SOS document for details, NSF, Made in USA

FG264043BLA - BRUTE® Quiet Dolly, 18-1/4"D x 6-5/8"H, non-marking casters, black, NSF, Made in USA

Item No. 1.29 Trash Container Rubbermaid FG354060GRAY\*C088

Slim Jim® Container, 23 gallon, 22"W x 11"D x 30"H, with venting channels, molded-in handles, general purpose waste, open type without lid, high-impact plastic construction, gray

FG267360GRAY - Slim Jim® Swing Lid, for Slim Jim® Container, gray

Item No. 1.30 Open Number \*C088

Item No. 1.31 Open Number \*C088

Item No. 1.32 Ice Cuber Manitowoc IB0696YC\*C088

Indigo™ QuietQube Ice Maker Beverage, cube-style, air-cooled, designed for remote refrigeration, 22"W x 14"D x 24"H, production capacity up to 640 lb/24 hours at 70°/50° (555 lb AHRI certified at 90°/70°), DuraTech™ exterior, half-dice size cubes, CVD Technology, NSF, cULus, ENERGY STAR®

K00196 - Bin Adapter, 22", IB ice machine to D-170, D-400, D-570 bin or 30" S dispensers

Interconnected with Item # 1.35 – Water Filter

Item No. 1.33 Ice Bin Manitowoc D400\*C088

Ice Bin, 30"W x 34"D x 38"H, with side-hinged front-opening door, side grips, AHRI certified 365 lb ice storage capacity (12.3 cu. ft.), for top-mounted ice maker, Duratech exterior, NSF

K00463 - Ice Scoop, 85 oz (5.3 lbs.) capacity, thumb & knuckle guard, rubber handle, internal or external bin mounting (compatible with D Bins), cast aluminum, NSF

K00461 - External Scoop Holder, wall or bin mount, metal frame with plastic shield, NSF

Item No. 1.34 Floor Trough Custom Detail 6.03\*C088

Size and shape per Plan, Elevation 1D, and Detail 6.03

KEC to coordinate proper location of floor trough to ensure that it receives the full pour path of item #1.33

KEC to provide shop drawings for review and approval prior to fabrication

Item No. 1.35 Water Filter Everpure EV932402\*C088

Insurice® Twin-i2000<sup>2</sup> System, 18,000 gallon capacity, 3.34 gpm flow rate, 0.5-micron filtration, for cubers up to 1,450 lbs/day or flakers up to 2,200 lbs/day, pressure gauge, flushing valve, NSF, ANSI

KEC to provide one (1) set of replacement filters

Interconnected with Item # 1.32 – Ice Cuber

Item No. 1.36 Open Number \*C088

Item No. 1.37 Open Number \*C088

Item No. 1.38 Open Number \*C088

Item No. 1.39 Open Number \*C088

Item No. 1.40 Open Number \*C088

Item No. 1.41 Meat Slicer Hobart HS9-1\*C088

Heavy Duty Meat Slicer, automatic, 13" CleanCut™ removable knife with removal tool, anodized finish with (6) interlocks, (3) stroke lengths & (4) stroke speeds, removable meat grip assembly, removable ring guard cover, product fence, single action top mounted sharpener with Borazon™ stones, manual lift lever, 1/2 hp motor, NSF cETLus

HS-CHUTE - Food chute for HS series slicers

HS-FENFUL - Product fence for HS series slicers

HSAUTO-LEGSET - 4.5" Legs for HS Automatic Slicers

HS-HVYGRP - Heavy Duty Meat Grip

Item No. 1.42 Food Processor	Robot Coupe R2N ULTRA *C088
------------------------------	-----------------------------

Commercial Food Processor, 2.9 liter stainless steel bowl with handle, vegetable prep attachment with external ejection, kidney-shaped opening, includes: (1) "S" blade (27055), (1) 2mm grating disc (27577), (1) 4mm slicing disc (27566), continuous feed, bowl attachment designed for vertical cutting & mixing, on/off & pulse switch, single speed, 1725 RPM, 1 HP, NEMA 5-15P, cETLus, ETL-Sanitation

27555 - Slicing Disc, 2mm (5/64")

27078 - Grating Disc, fine pulping, 0.7mm (1/64"), for small food processors

27599 - Julienne Disc, 2 x 2mm (5/64" x 5/64")

27047 - Julienne Disc, 4 x 4mm (5/32" x 5/32")

Item No. 1.43 Mixer, 20 Quart	Hobart HL200-1 *C088
-------------------------------	----------------------

100-120/50/60/1; Bench type mixer; without attachments; US/EXP configuration - Legacy Planetary Mixer - Unit Only, Bench, 20 quart, (3) fixed speeds plus stir speed, gear-driven transmission, 15-minute SmartTimer™, #12 taper hub, manual bowl lift, stainless steel bowl guard, 1/2 hp, cord with plug

BOWL-HL20P - Legacy® Mixer Bowl, 20 quart, stainless steel

BBEATER-HL20 - Legacy® Mixer 20 quart, "B" flat beater, aluminum

DWHIP-HL20 - Legacy® Mixer 20 quart "D" wire whip, stainless steel

EDDOUGH-HL20 - Legacy® Mixer 20 qt. "ED" dough arm, aluminum

CWHIP-HL20 - 20 quart tinned C wing whip

SCRAPER-HL20 - Bowl Scraper for 20 quart bowl & mounting bracket

SPLASH-LEX020 - Mixer Bowl Splash Cover, for 20 quart, Lexan

Item No. 1.44 Open Number \*C088

Item No. 1.45 Open Number \*C088

Item No. 1.46 Exhaust Ventilator Caddy PB-C-W-174-ND-54\*C088

Size and Shape per Plan

The ventilator to incorporate a full-length semi-concealed grease gutter. Filters to be U. L. Classified stainless steel baffle type. The grease collection trough at the bottom of the cartridge housing to lead to a removable stainless steel collection container.

Ventilator shall operate at air quantities as illustrated on the plans. Exhaust fire damper shall be fusible link activated. Upon activation at 360 degrees, damper shall close. Ventilator to be equipped with necessary hanger brackets at front and rear for suspending from overhead structure.

Make-up Air:

Ventilator shall have a fully insulated supply plenum, with duct collar / fire damper assemblies, and 40% open stainless steel perforated face panels for face discharge of tempered make-up air.

Construction:

Ventilator shall be of all stainless steel construction, minimum #18 gauge, type 304. All exposed surfaces shall be number 4 finish. Ventilator to be equipped with a fire damper located at the exhaust duct collar.

Light Fixtures:

Ventilator shall be equipped with 150 watt recessed LED light fixtures. All light fixtures shall be pre-wired to a single connection point. Ventilators built in multiple sections to be furnished with junction boxes for ease of field connection by the Electrical Trades. Light bulbs furnished and installed by the Kitchen Equipment Contractor.

Approvals:

Ventilator shall be U. L. Listed under the category "Exhaust Hood with Exhaust Damper". Construction to be in accordance with all of the recommendations as set forth by N. F. P. A.'s Standard Number 96 and N. S. F. Standard Number 2. Ventilator must meet all applicable local codes.

The hood manufacturer shall factory install the Melink IntelliHood system and provide the following:

Equipment that is UL and CSA listed.

Equipment that meets the following codes: NFPA 96, IMC, BOCA, SBCCI, ICBO, NSF, and CE.

On-site training during the time that the equipment is started up by the manufacturer (or their certified representative).

Warranty that their equipment is to be free of defects in material and workmanship for a period of three years from the purchase date.

Around the clock (24/7) phone support for the equipment.

A nationwide service network available to support the equipment.

Site-specific drawings for each installation.

Operation manual for each installation.

#### System GENERAL DESCRIPTION

The Melink Intelli-Hood® controls automatically reduce the speed of the exhaust and make-up air fan (if applicable) during idle, non-cooking periods to save fan energy and conditioned air. The system includes the following components: I/O Processor, Keypad, Temperature Sensors, Optic Sensors, Variable Frequency Drives (VFDs), and Cables.

The system shall be supplied and installed by the hood manufacturer. The I/O Processor, Keypad, and VFDs are mounted in an end-cabinet of the most centrally located hood, the Temperature Sensors are mounted in the exhaust collars, and a pair of Optic Sensors is mounted in each Type 1 hood with air purge units (APU) mounted on top. The specified system shall be manufactured by Melink Corporation based in Milford, OH. No substitutions allowed.

#### CONTROLS DESCRIPTION

The system shall consist of the following components:

The I/O Processor controls up to four independent channels and sends serial communication signals to the VFDs (this allows control of up to four independent exhaust fan and a calculated average output for make-up air). The Keypad is the operator interface for the control system. One Keypad shall be connected to each I/O Processor and will have the capability to control the lights and fans for the connected hoods. The Keypad must be within 50 feet of the I/O Processor. The Temperature Sensors monitor the exhaust air temperature in the ducts (one sensor per exhaust collar up to 23 inches long/wide). The Optic Sensors monitor the smoke load inside the hoods



(one sensor pair per Type 1 hood). The Air Purge Units (APUs) are mounted on top of the hoods to ensure a positive pressure inside the sensor enclosure and keep the sensors clean. The Variable Frequency Drives (VFDs) vary the fan speeds according to the actual cooking load based on temperature and smoke (one VFD per fan). These shall be Allen-Bradley Powerflex 4/40/400 series drives. The custom Cables link the I/O Processor to the Keypad, Sensors, and VFDs. They are low-voltage, plenum-rated, and have shielded pairs.

The system will have the following specialized capabilities:

Automatically turn the hoods on (and off) based on temperature to improve comfort, health, and safety as required by IMC 2006. Automatically turn the hoods on (and off) based on a time of day schedule. Automatically turn the make-up air unit off with the fire suppression system. Vary the hood fan speeds based on both the heat and smoke load to ensure optimal hood performance and energy savings. Automatically adjust the temperature span to ensure optimal energy efficiency. Automatically recalibrate the optics at start-up to ensure optimal energy efficiency. Control up to four hoods with just one I/O Processor and Keypad. Display operating status such as fan speed and any faults at the Keypad. Program operating parameters such as minimum speed at the Keypad. Provide additional inputs and outputs to allow compatibility with other equipment and devices such as HVAC systems and cooking appliances. Provide plug-n-play cables for easy installation and start-up.

#### ELECTRICAL REQUIREMENTS

I/O Processor shall be powered by a grounded 20A 120/1 or 240/1 VAC circuit. The power circuit shall de-energize in the event

of a fire. I/O Processor will output 120V or 240V single phase (line power) to energize the hood lights. Output rating is 15A. Each variable frequency drive (VFD) shall be connected to an appropriately sized breaker. Multiple input runs may be made in common conduit, but the output wiring from each VFD shall be run in a separate conduit. If the distance between the VFD and motor exceeds 300 feet on 208/230V applications, 150 feet on 460V, 100 feet on 575V applications, an output filter or reactor shall be specified. All motors for the exhaust and make-up air fans being controlled by VFD's shall be three-phase and inverter-duty rated. Any make-up air unit being controlled by a VFD shall have a separate power feed for the control circuit to ensure it is not affected by 'variable voltage' to the blower circuit.

#### MECHANICAL/CONTROL REQUIREMENTS

All motors for the exhaust and make-up air fans being controlled by VFD's shall be three-phase and inverter-duty rated. Any make-up air unit being controlled by a VFD shall have a separate power feed for the control circuit to ensure it is not affected by 'variable voltage' to the blower circuit. Plug 'n play cables shall be provided by the manufacturer for connecting the I/O Processor with the header box on each hood. Low-voltage wiring (18awg shielded up to 300 feet) shall be provided by the contractor for

connecting the I/O Processor with any make-up air unit or HVAC rooftop unit that is being controlled by the system.

If hood is to be built in 2 sections due to building dimensions, please consult factory for design/price change.

KEC to verify that unit will be able to be shipped and installed in one piece

KEC to coordinate interconnection of Fire Suppression Item 1.47 to Exhaust Ventilator with respective trades

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.47 Fire Suppression System

Ansul R-102\*C088

Fire Suppression System

System shall provide surface (plenum and duct) protection for the items of cooking equipment located beneath the Ventilator, Items #, & # in accordance with all applicable codes, ordinances, regulations, and the provisions of NFPA 17A and 96 and UL300

All system piping fittings and conduit shall be concealed where possible and shall be stainless steel with no exposed threads and shall include material to extend nozzles to proper position over specified cooking equipment

Power interruption device to prevent power and fuel with five-second battery back-up shut-off during a momentary power outage

System shall be complete with all valves, switches, pilot lights, re-set button, indicator lights, alarm, and time delay

System to be interwired with shunt-trip breaker and mechanical gas solenoid valve serving items of cooking equipment beneath the ventilator to provide for power and fuel shut-off in the event of system actuation.

System piping to be provided internally in ventilators by manufacturer

Shut-off valve provided loose by KEC for field installation

Recessed remote fire pull station located per Plan between 4' 6" (1350mm) and 5' 0" (1500mm) above finished floor

Location of fire pull to be verified with local/state codes. (BOCA 93: pull to be minimum of 10' 3" (3,000mm) away from hood)

Manufacturer to comply with all state and local codes

Installation, field inspection, and certification to be performed by factory authorized Ansul agency

KEC to coordinate interconnection of Fire Suppression Item 1.47 to Exhaust Ventilator with respective trades

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.48	DCV Control Panel	Caddy Melink*C088
---------------	-------------------	-------------------

Refer to Item 1.46 Exhaust Ventilator for Details

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.49	Open Number	*C088
---------------	-------------	-------

Item No. 1.50	Steamer, Convection, Electric	Groen (2)SSB-10EF*C088
---------------	-------------------------------	------------------------

SmartSteam™ Convection Steamer, electric, double-stacked, boilerless generator, open leg stand bullet feet, (10) 12 x 20 x 2-1/2" pans capacity per compartment, stainless steel interior & exterior, cUL, UL, NSF, Made in USA

144475 - Single Water Connection

147445 - Heat shield kit, double (5 or 10 pan units)

Z098611 - Casters, set of (4), (2) locking

Item No. 1.51	Range, 6-Burner, Convection Oven Base	Vulcan V6B36C*C088
---------------	---------------------------------------	--------------------

V Series Heavy Duty Range, gas, 36", (6) 35,000 BTU open burners, cast iron grates, convection oven, stainless steel front, front top ledge, sides, base, burner box & stub back, , 242,000 BTU, CSA, NSF

PRESREG-NA11/4 - 1-1/4" NPT pressure regulator (Natural gas)

CASTERS RR4 - Casters (set of 4)

16125KIT2S48PS - Dormont Blue Hose™ Moveable Gas Connector Kit, 1-1/4" inside dia., 48" long, covered with stainless steel braid, coated with blue antimicrobial PVC, 1 SnapFast® QD, 2 Swivel MAX®, 1 full port valve, 1 pair Safety Set® with adhesive foam tape and hardware mounting options, limited lifetime warranty

Item No. 1.52 Open Number \*C088

Item No. 1.53 Charbroiler, Countertop Vulcan VTEC48\*C088

IRX™ Infrared Charbroiler, gas, countertop, 47-1/2", (4) 22,000 BTU burner, manual control, piezo ignition, crumb tray, stainless steel cooking grids, sides, control panel, top trim, removable heat shield & backsplash, 4" adjustable legs, 88,000 BTU, CSA, NSF

SCRAPER-VTEC - Scraper for VTEC Charbroiler grid

1675KIT48PS - Dormont Blue Hose™ Moveable Gas Connector Kit, 3/4" inside dia., 48" long, covered with stainless steel braid, coated with blue antimicrobial PVC, 1 SnapFast® QD, 1 full port valve (2) 90° elbows, 1 pair Safety Set® with adhesive foam tape and hardware mounting options, limited lifetime warranty

Item No. 1.54 Refrigerated Equipment Stand, Mobile Vulcan ARS48\*C088

Achiever Refrigerated Base, 48", self-contained, one-section, (2) drawers, marine top, stainless base, top, front, sides, interior, galvanized back, 3" heavy duty casters, magnetic drawer gasket, 1/3 hp

Item No. 1.55 Convection Oven, Double Stack Blodgett Oven DFG-100 DBL\*C088

Convection Oven, gas, double-deck, standard depth, capacity (5) 18" x 26" pans per compartment, (SSD) solid state digital controls, 2-speed fans, interior light, simultaneous operated doors with glass, stainless steel front, sides & top, flue connector, (2) 1/2 HP, 55,000 BTU each, cETL, NSF, CE

SSD - Top Oven: Solid State digital with Pulse Plus® and Cook & Hold, standard

SSD - Bottom Oven: Solid State digital with Pulse Plus® and Cook & Hold, standard

- Draft diverter

- 6" plate casters (set), in lieu of legs

1675KIT48 - Dormont Blue Hose™ Moveable Gas Connector Kit, 3/4" inside dia., 48" long, covered with stainless steel braid, coated with blue antimicrobial PVC, 1 SnapFast® QD, 1 full port valve (2) 90° elbows, coiled restraining cable with hardware, 180,000 BTU/hr minimum flow capacity, limited lifetime warranty

1675KIT48PS - Dormont Blue Hose™ Moveable Gas Connector Kit, 3/4" inside dia., 48" long, covered with stainless steel braid, coated with blue antimicrobial PVC, 1 SnapFast® QD, 1 full port valve (2) 90° elbows, 1 pair Safety Set® with adhesive foam tape and hardware mounting options, limited lifetime warranty

Item No. 1.56	Open Number	*C088
---------------	-------------	-------

Item No. 1.57	Open Number	*C088
---------------	-------------	-------

Item No. 1.58	Open Number	*C088
---------------	-------------	-------

Item No. 1.59	Open Number	*C088
---------------	-------------	-------

Item No. 1.60	Stainless-Steel Wall Sheathing	Custom Detail 8.02*C088
---------------	--------------------------------	-------------------------

Custom fabricated per Plan, Elevation 1B, and Detail 8.02.

KEC to provide shop drawing for review and approval prior to fabrication.

Item No. 1.61	Open Number	*C088
---------------	-------------	-------

Item No. 1.62	Open Number	*C088
---------------	-------------	-------

Item No. 1.63	Worktable with Hand Sink	Custom Detail 2.01*C088
---------------	--------------------------	-------------------------

Worktable type D, size and shape per plan, and Detail 2.01

Sink & Faucet – Custom Detail 3.04

KEC to provide shop drawings for review and approval prior to fabrication

Item No. 1.63A	Wall Shelf	Custom Detail 1.12*C088
----------------	------------	-------------------------

Size and shape per Plan, and Detail 1.12

Mounted as shown on Elevation 1D, and Detail 1.12

KEC to coordinate undercounter equipment clearances

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 1.63B Can Opener	Edlund G-2SL*C088
---------------------------	-------------------

Can Opener, manual, 22" welded stainless steel shaft, melonite arbor, with long bar and stainless steel base, NSF certified

ST-93 - Rustproof Can Opener Cleaning Tool, stainless steel bristles and stainless scraper

Mount on Item 1.63 Table

Item No. 1.64 Open Number	*C088
---------------------------	-------

Item No. 1.65 Utility Table, Mobile	Custom Detail 2.30*C088
-------------------------------------	-------------------------

Size and shape per Plan, Elevation 1B, and Detail 2.30 with sound deaden top

KEC to provide shop drawings for review and approval prior to fabrication

Item No. 1.66 Open Number	*C088
---------------------------	-------

Item No. 1.67 Open Number	*C088
---------------------------	-------

Item No. 1.68 Open Number	*C088
---------------------------	-------

Item No. 1.69 Open Number	*C088
---------------------------	-------

Item No. 1.70 Open Number	*C088
---------------------------	-------

Item No. 1.71 Open Number	*C088
---------------------------	-------

Item No. 1.72 Pass-Thru Mobile Heated Cabinet Vulcan VPT18\*C088

Holding/Transport Cabinet, Pass-thru, Mobile, capacity (18) 18" x 26" x 1" or (36) 12" x 20" x 2-1/2" pans, forced air blower, side mounted push handles, recessed control panel, analog thermometer ambient to 190° F, includes (15) pair of universal tray slides adjustable 1-1/2" OC, 20 gauge stainless steel interior and exterior, 5" casters, cULus, UL EPH Classified

Item No. 1.73 Refrigerator, Undercounter Utility Refrig PT-CHR-90-3S-3S-DEM\*C088

Undercounter Refrigerator, pass-thru, 31.0 cu. ft., three-section, expansion valve, high/low service valves, sight glass, low pressure burnout protection, digital temperature control, standard depth, solid stainless steel doors, welded corners, stainless steel front & sides with stainless steel flat top, self-contained, 1/4 hp

- Front: (kitchen control side) left door hinged on left, center & right door hinged on right, standard
- Rear: (serving side) left door hinged on left, center & right door hinged on right, standard
- 6" adjustable heavy duty legs, standard

Item No. 1.74 Worktable Custom Detail 2.01\*C088

Worktable type B, size and shape per plan, Elevation 1E and Detail 2.01

KEC to provide shop drawings for review and approval prior to fabrication

Item No. 1.75 Open Number \*C088

\*\*\* Front of House \*\*\*

Item No. 2.01 Hot / Cold Food Well Unit, Drop-In, Electric Wells HRCP-7300\*C088

Hot/Cold Drop In Unit, 3-pan size, single tank with switch for hot or cold operation with self-contained refrigeration, automatic water fill, includes (2) pan dividers, R404a, NSF, cULus

ADTBAR-RCP - Adaptor bar for RCP/HRCP Hot/Cold Food Units

23200 - Perforated Bottom Strainer Plate, 3" thick, for HRCP-7300 or RCP-7300, two pieces

KEC to provide thermal break for unit and coordinate location with millwork contractor

KEC to coordinate venting, plumbing, and electrical requirements with the millwork contractor and respective trades prior to fabrication

KEC to coordinate cutout sizes and locations with millwork contractor

Item No. 2.02 Open Number

\*C088

Item No. 2.03 Counter

RPI INTEGRATIONS-FLEX-III\*C088

RPI INTEGRATIONS-FLEX-III provided per drawings

Top's to be 3CM Quartz with polished finish as selected by Architect

Front Counter Quartz edge; 3CMFLE on customer side, 3CMFLE on server side

Exterior Finish on Customer Side: Finishes selected TBD by the Architect

Coordinate fit and finish with equipment

Fabricated in sections sized accordingly for access for delivery and installation

Provide as required FDB-12 in fixed bottom

Provide penetrations in cabinetry for utilities from walls, floors, etc-In

Drop-In equipment to be sent to factory for proper coordination, fit and finish. For each counter, the required Drop-In equipment is listed per counter unit.

Top and front panels held in place with QR-15 fasteners. Fully integrated Dura-Straight HD sub top encapsulated on all sides and edges with HPL sheet, with cut outs for drop in equipment. 18 ga, body, TG-FAS fasteners, 18 ga removable shelf and SK-32 pilasters without use of tools. SK-6-SS legs mounted to full perimeter 14 ga, hi hat bottom support system. Integrated removable back panel, held in place with # 8 ST-PS stainless fasteners. Integrated electric and plumbing chase in rear along front / end counter. Non wired EEB-4x4 pre mounted units in chase. W4 ventilation package to be included as required for equipment. MES stainless equipment support framing to be an integral part of counter construction at all drop in locations. CCB-30 base for counter support.

Intermediate support framing



Aprons sized to accommodate equipment controls and switches

Penetrations in rear vertical panels to allow for utility runs with B-EG full perimeter covering.

FB-6 with Stainless Steel finish, toe base applied in field

Counter Equipment NOTE

Due to the sizes of the counters, they will be shipped in sections. Counter tops, sneeze guards and equipment will ship loose and will be re installed. Customer will be responsible the above if the delivery and installation package is not purchased from RPI.

Counter to be fabricated by an AWI member and millwork to be AWI Premium grade

Entire counter to be fabricated to NSF 2 requirements and include label

Includes full size hard board template where required for field coordination with all trades.

-3CM Corian Quartz Counter Top Flat 3CM polished edge.- Color as selected by the Architect.

-Open Base Cabinets Stainless Steel Construction on 6" Adjustable Legs

-Front Decor Panels on Customer side as selected by the Architect.

-Front and Rear Stainless Steel Removable Toe Base

Item No. 2.04	Open Number	*C088
---------------	-------------	-------

Item No. 2.05	POS Station	NIKEC By Owner*C088
---------------	-------------	---------------------

This item is not in the Kitchen Equipment Contract

Item No. 2.06	Open Number	*C088
---------------	-------------	-------

Item No. 2.07	Breath Guard, Full Service	BSI ZG9930 *C088
---------------	----------------------------	------------------

Size Per Drawings

Features Z-GUARD ZG9930 series 1" dia. posts, TBD Finish

3/8" tempered glass front panels and top shelf with 1" radius corners

Incorporate BSI Patented Stealth heat/LED light. Infinite controls and on/off switches mounted remotely in counter apron.

Custom Wall Mount (One end only)

Manufactured to meet current NSF and UL standards for food shields including end panels and bear appropriate insignia

Unit ships fully assembled

KEC responsible for coordination of sneeze guards with counter manufacturer.

Mount Controls in Counter

Verify Finish Requirements with Architect prior to fabrication

KEC to ensure installation of Breath Guard and drop in equipment meet NSF 2 Standard

KEC to coordinate electrical cutouts and mounting requirements of unit with counter fabricator

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 2.08	Breath Guard, Full Service
---------------	----------------------------

BSI ZG9930*C088
-----------------

Size Per Drawings

Features Z-GUARD ZG9930 series 1" dia. posts, TBD Finish

3/8" tempered glass front panels and top shelf with 1" radius corners

Incorporate BSI Patented Stealth heat/LED light. Infinite controls and on/off switches mounted remotely in counter apron.

Custom Wall Mount (One end only)

Manufactured to meet current NSF and UL standards for food shields including end panels and bear appropriate insignia

Unit ships fully assembled

KEC responsible for coordination of sneeze guards with counter manufacturer.

Mount Controls in Counter

KEC to coordinate cut-out size and location with Counter Fabricator

Verify Finish Requirements with Architect prior to fabrication

KEC to ensure installation of Breath Guard and drop in equipment meet NSF 2 Standard

KEC to provide shop drawing for review and approval prior to fabrication

Item No. 2.09 Open Number	*C088
---------------------------	-------

Item No. 2.10 Open Number	*C088
---------------------------	-------

Item No. 2.11 Display Case	RPI VICC-48-R-CV-SC *C088
----------------------------	---------------------------

Vienna Cold Combo Display Case, 47-1/4" W, self-contained refrigeration, full service, programmable digital refrigeration controller, top canopy LED light, forced air cooling, lift up evaporator, tempered tilt-out front curved glass with glass side panels (upper) section, (1) refrigeration shelf with LED light, stainless steel exterior, rear sliding access door (upper section) & cutting board, 3/4 hp, cETLus, ETL-Sanitation, NSF

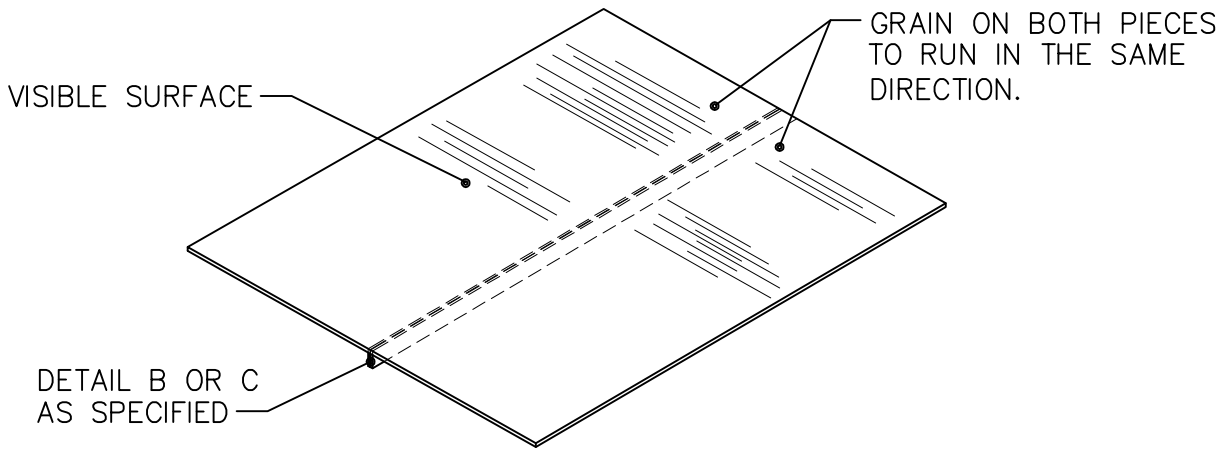
**PART 5 SCHEDULE OF DETAILS**

A. The following Details are hereby made a part of these specifications and shall be utilized for referenced design requirements.

- 1.01 Field Joints & Assembly
- 1.02 Edges
- 1.02.1 Edges
- 1.03 Corner Guards
- 1.04 Backsplashes
- 1.05 Table and Drainboard Framework
- 1.06 Counter Framework
- 1.06.1 Counter Framework
- 1.06.2 Counter Framework
- 1.07 Table, Counter & Sink Legs
- 1.09 Flange Foot
- 1.10 Crossbracing
- 1.10.1 Wall Support for Crossbracing
- 1.11 Undershef
- 1.12 Overshelves & Supports
- 1.16 Anti-Splash Drain Trough
- 1.18 Pot and Utensil Racks
- 1.18.1 Pot and Utensil Racks

- 2.01 Worktable
- 2.01.1 Work Tables-type
- 2.01.2 Prep Tables with Sink
- 2.30 Utility Table
  
- 3.01 Sinks & Drainboards
- 3.01.1 Sinks & Drainboards
- 3.01.2 Sinks & Drainboards
- 3.02 Work Table with Sinks & Drainboards
- 3.04 Counter Top Sink
  
- 6.02 Floor Grate & Frame
- 6.03 Floor Grate & Pan
- 7.07 Wall Bracing Detail
- 8.02 Stainless Steel Wall Sheathing

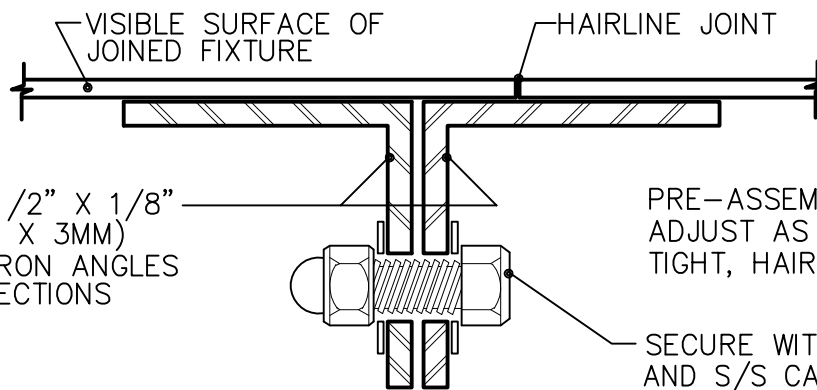
END OF SECTION 11 4000



ON FIXTURES SPECIFIED WITH WELDED FIELD JOINTS, WELDS TO BE CONTINUOUS, GROUND AND POLISHED SO THAT NO EVIDENCE OF WELD IS VISIBLE.

**WELDED BUTT JOINT**

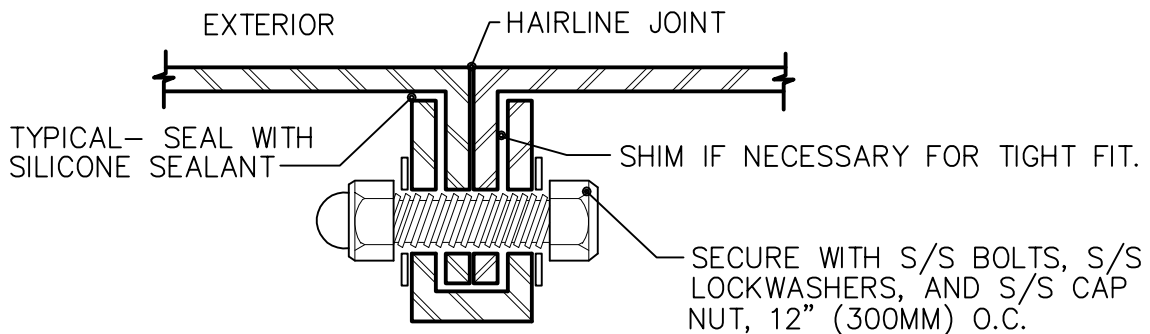
**A**



ITEMS TO BE JOINED ARE TO BE DRAWN TOGETHER, LEAVING ONLY A HAIRLINE SEAM.

**BOLT DRAWN JOINT (MECHANICAL NON-WELDED)**

**B**



ITEMS TO BE JOINED ARE TO BE DRAWN TOGETHER, LEAVING ONLY A HAIRLINE SEAM.

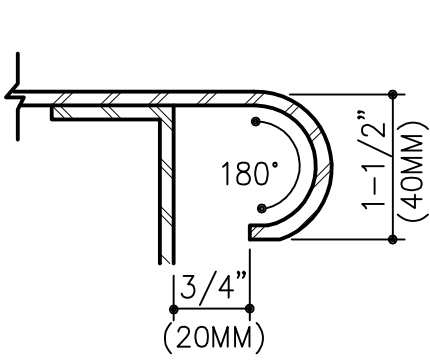
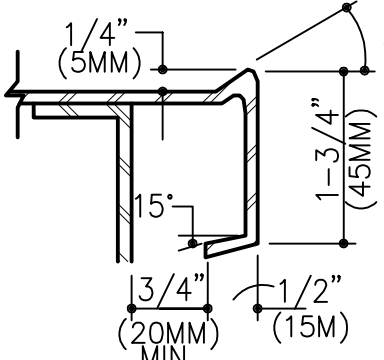
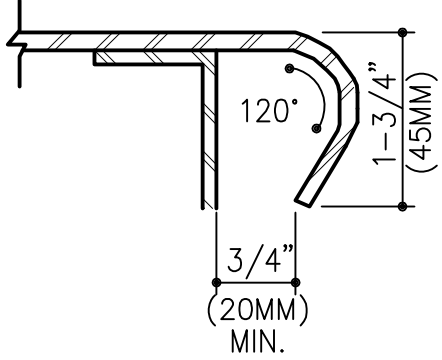
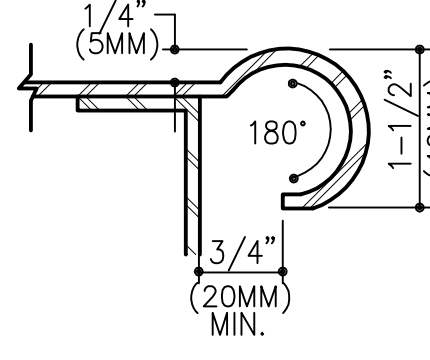
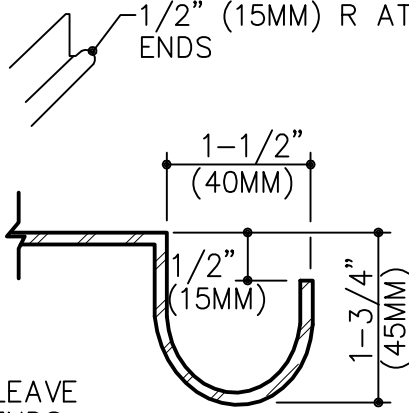
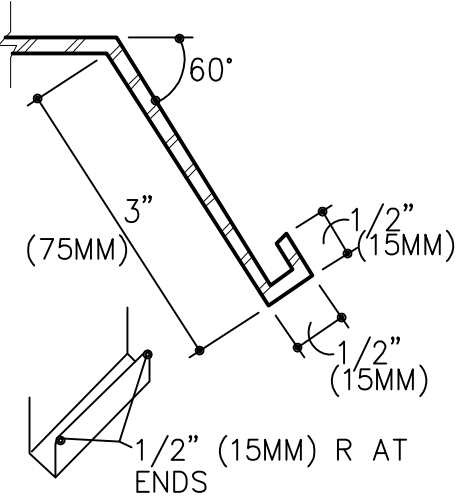
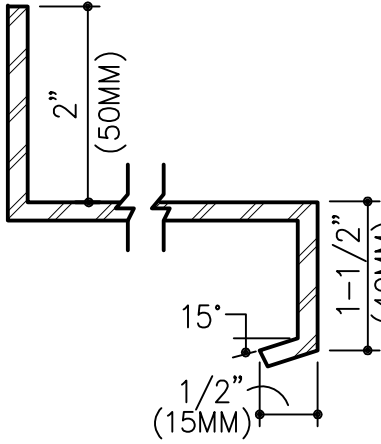
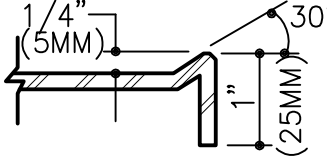
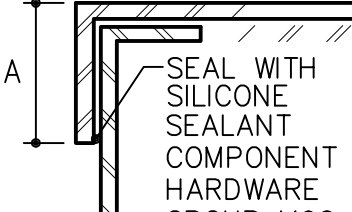
**RAISED CAP SEAM- KNUCKLE JOINT**

**C**

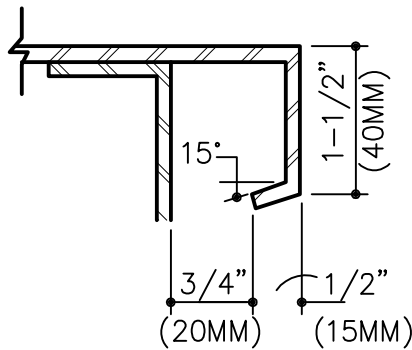
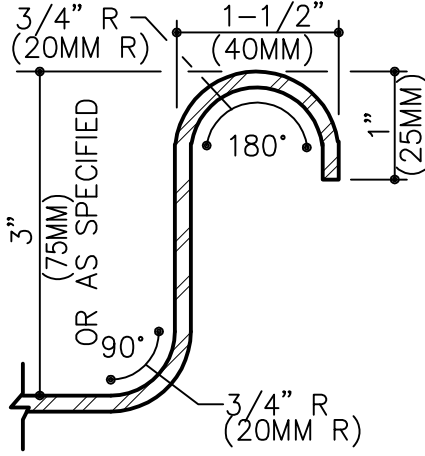
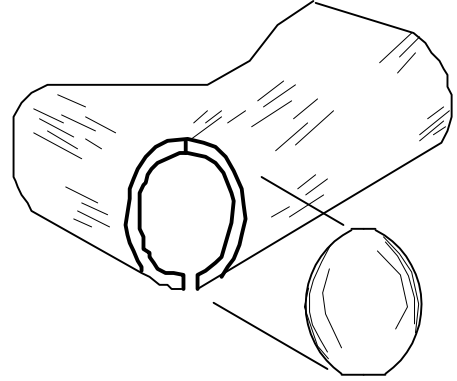
APPROVED: 05-13-13



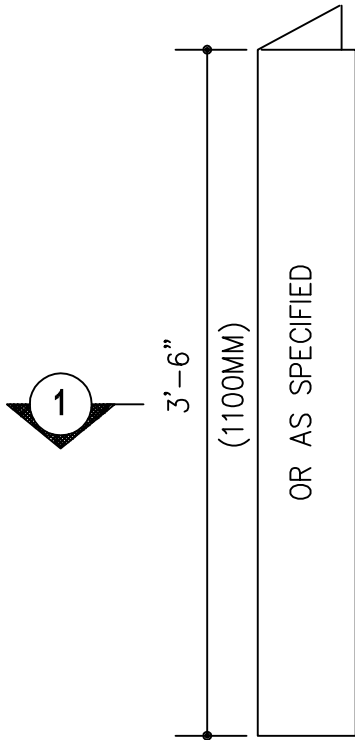
APPROVED: 05-13-13

 <p><b>ROLLED</b> <b>A</b></p>	 <p><b>INVERTED "V"</b> <b>B</b></p>	 <p><b>BULL NOSE</b> <b>C</b></p>
 <p><b>MARINE</b> <b>D</b></p>	 <p><b>FLOUR GUTTER</b> <b>E</b></p>	 <p><b>RECIPE CARD HOLDER</b> <b>F</b></p>
 <p><b>UNDERSHELF</b> <b>G</b></p>	 <p><b>INVERTED "V" RAISED OPENING</b> <b>H</b></p>	<p><b>A.</b> AS SPECIFIED. TO MATCH ADJACENT EDGES.</p>  <p>SEAL WITH SILICONE SEALANT COMPONENT HARDWARE GROUP M90 SERIES NSF</p> <p><b>STRAIGHT TURN DOWN</b> <b>I</b></p>

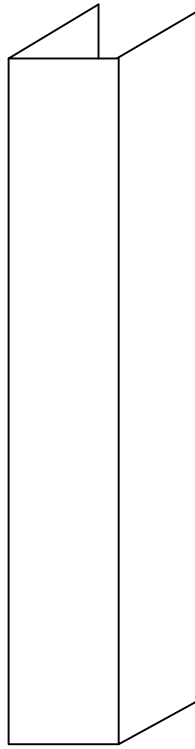
APPROVED: 05-13-13

 <p><b>TURNED DOWN</b>      <b>J</b></p>	 <p><b>UP &amp; ROLLED</b>      <b>K</b></p>	<p>FULLY WELD FILLER PIECE IN PLACE, GRIND SMOOTH AND POLISH TO APPEAR INTEGRAL.</p>  <p><b>STANDARD CORNER</b>      <b>L</b></p>

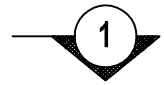
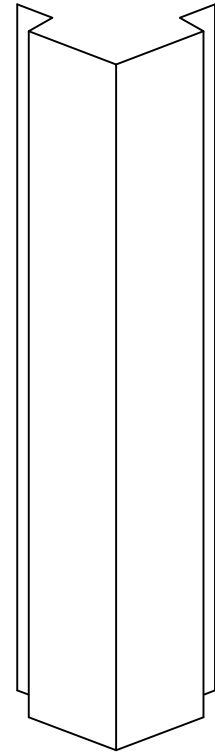
**A**  
**ANGLE TYPE**



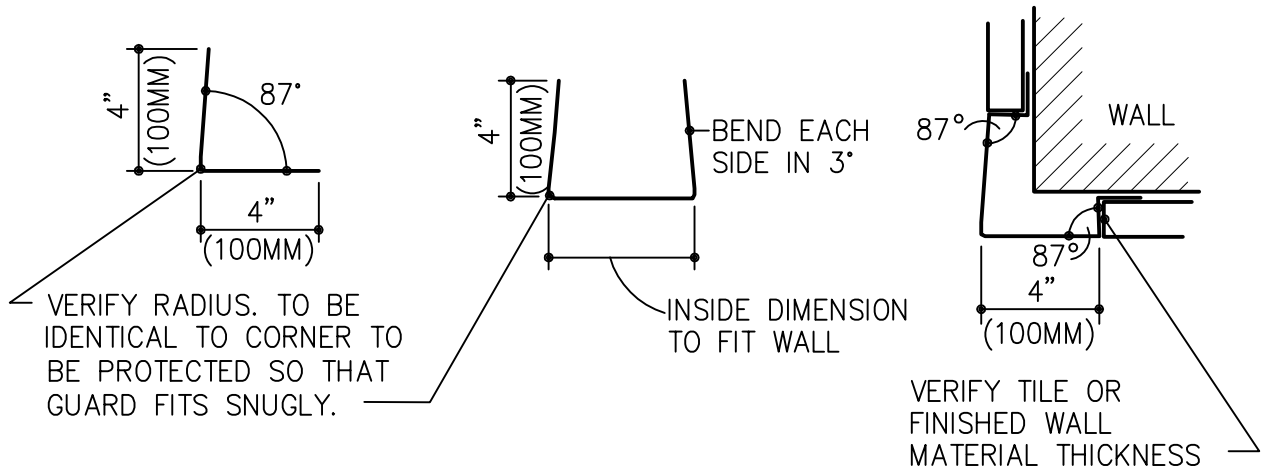
**B**  
**CHANNEL TYPE  
OR WALL CAP**



**C**  
**CHANNEL PLUS**



**ISOMETRIC VIEW**



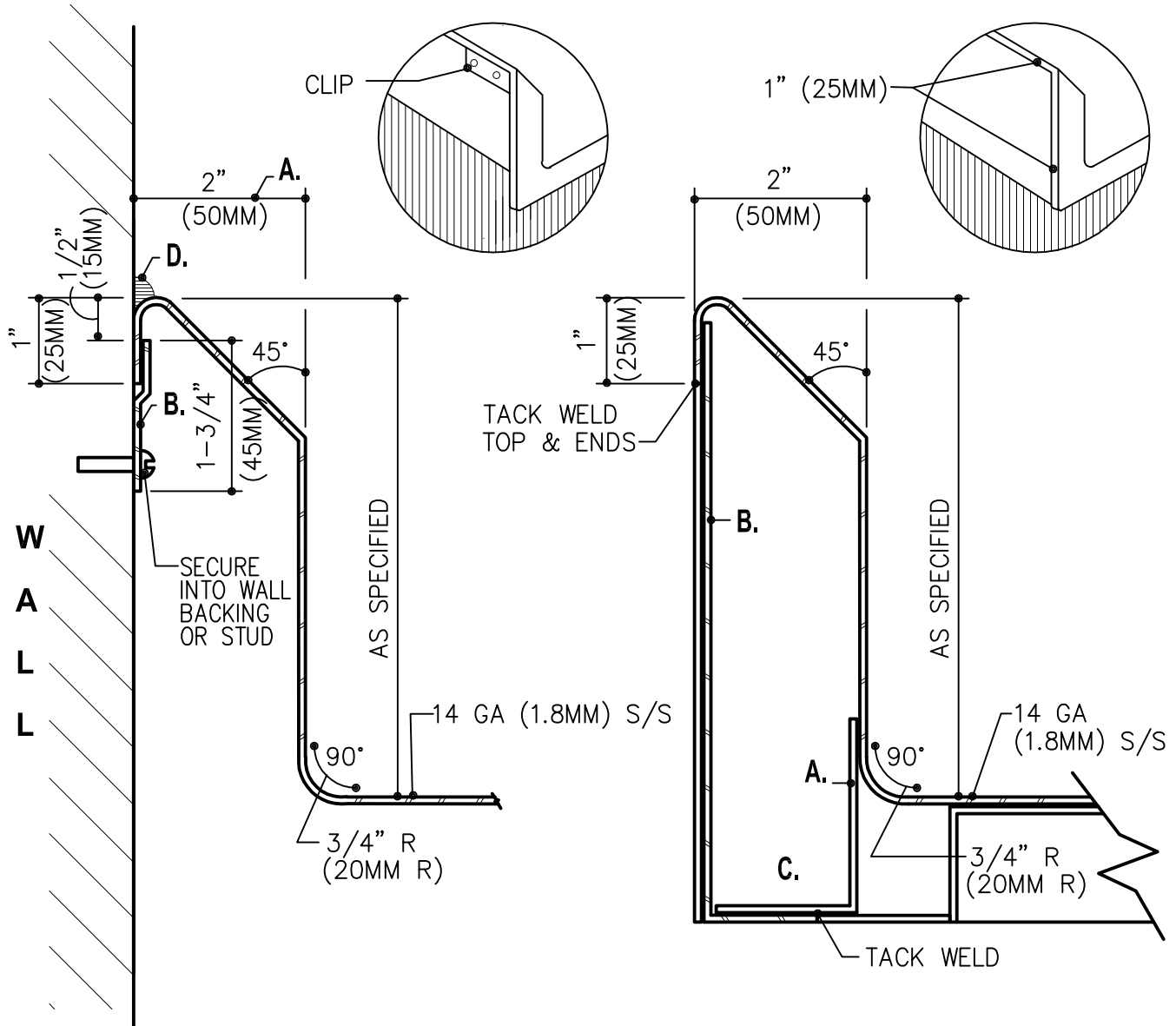
**SECTION 1**

NOTE: MOUNT 16 GA.(1.5MM) #4 FINISH STAINLESS STEEL CORNER GUARDS ON CORNERS IMMEDIATELY ABOVE 6" (150MM) HIGH COVE BASE TILE WITH SUITABLE S/S FASTENERS AND SEAL.

APPROVED: 05-13-13



APPROVED: 05-13-13



**WALL UNIT-A**

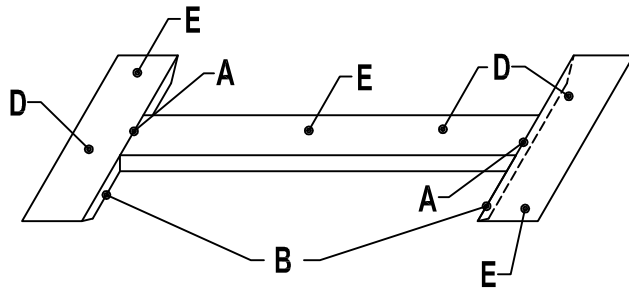
**FREE STANDING UNIT-B**

- A.** 2-1/2" (65MM) AT SINKS TO ALLOW FOR CONNECTED OVERFLOW.
- B.** 12 GA (2.6MM) S/S CLIP, 4" (100MM) LONG, FASTENED TO WALL AT EACH END & CENTER OF UNIT. SECURE TO WALL WITH A MINIMUM OF TWO. USE 1/4" (5MM) X 20 S/S BOLTS WITH TOGGLES OR EXPANSION SHIELDS.
- C.** EXPOSED ENDS TO BE FULLY WELDED CLOSED.
- D.** SEAL TO WALL ALL AROUND.

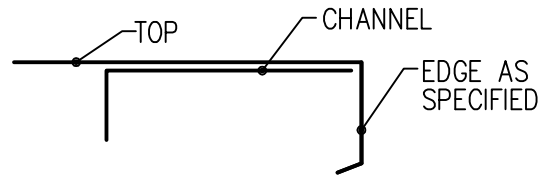
- A.** 2-1/2" X 1-1/2" (65MM X 40MM) 14 GA. (1.8MM) S/S CLIP WELDED TO SPLASH. RUN FULL LENGTH
- B.** 18 GA (1.2MM) S/S PANEL TACK WELD TO CLIPS AND SPLASH.
- C.** EXPOSED ENDS TO BE FULLY CLOSED.

NOTE: IF ACCESS TO SPLASH ON DETAIL B IS REQUIRED FOR ELECTRICAL OR PLUMBING, USE REMOVABLE PANEL AS SHOWN ON STANDARD DETAIL 1.04.1

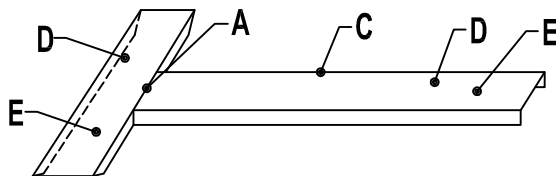
APPROVED: 05-13-13



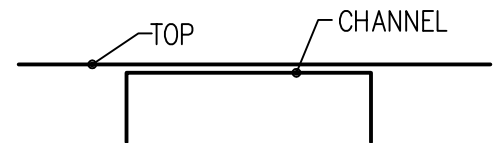
**A WORK TABLES AND DISH TABLES**



**BATTEN CONSTRUCTION STYLE  
14 GA. END/EDGE CHANNEL AT  
WORKTABLE**



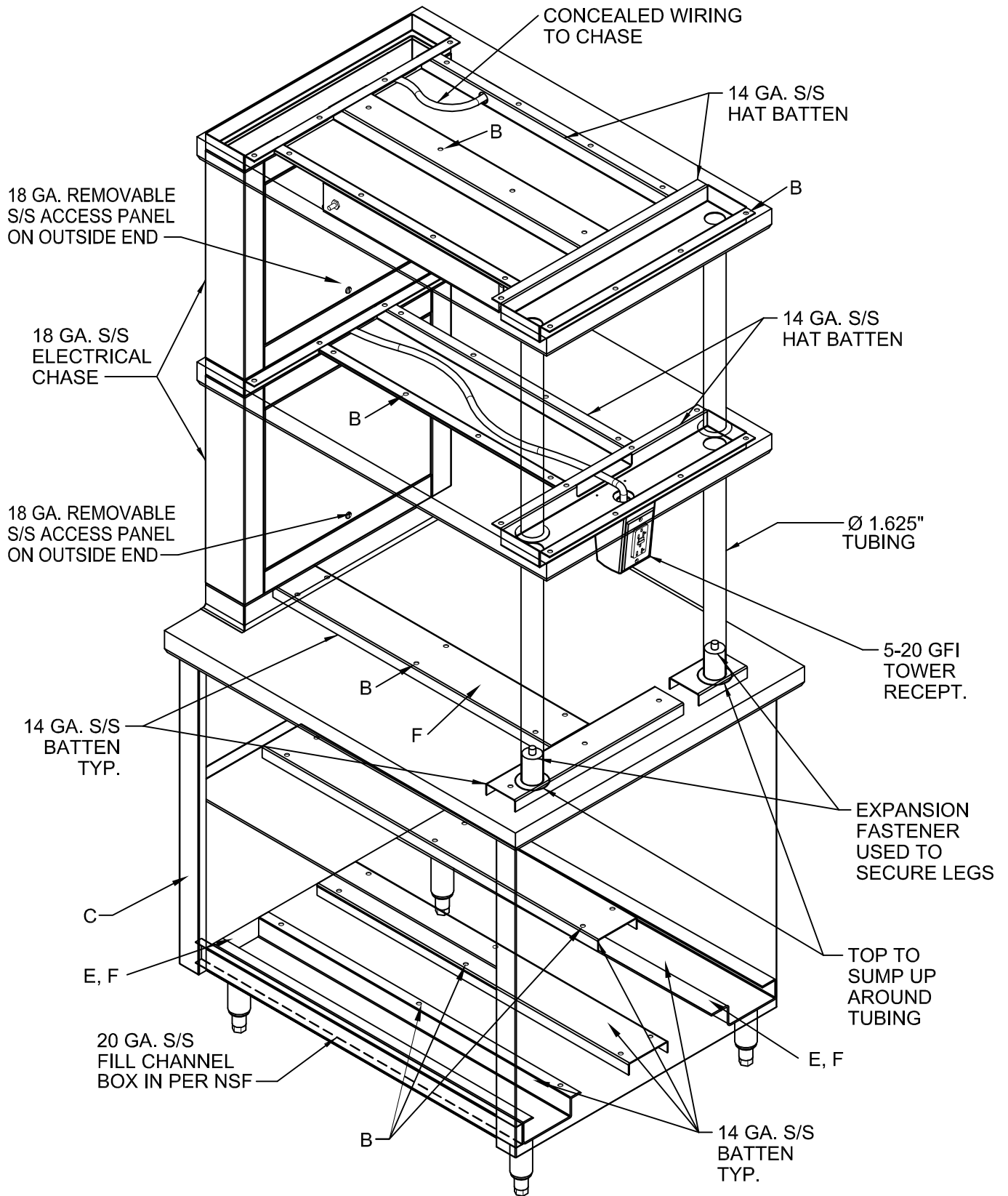
**B SINK DRAINBOARDS**



**BATTEN CONSTRUCTION STYLE  
14 GA. CENTER  
HAT CHANNEL**

- A.** FULLY WELDED CONSTRUCTION.
- B.** CHANNEL LOCATION – ENDS AND INTERMEDIATES MAXIMUM 5'-6" (1650MM) ON CENTER.
- C.** DELETE CENTER CHANNEL WHERE LARGE MOBILE TRASH CANS & UNDERCOUNTER DISHWASHERS REQUIRE CLEARANCE HEIGHT.
- D.** SECURE TOP TO FRAMEWORK WITH WELDED STUDS, S/S LOCKWASHERS AND S/S CAP NUTS. MAXIMUM 15" (380MM) ON CENTER.
- E.** SOUND DEADING CHG Q85-5225 TACKY TAPE BETWEEN S/S TOP AND FRAME SEAL WITH CLEAR SILICONE SEALANT.

APPROVED: 05-13-13



REFER TO NOTES ON DTL. 1.06.2 AND DETAILS 1.01, 1.02, 1.07 AND SPECIFICATIONS FOR COUNTER



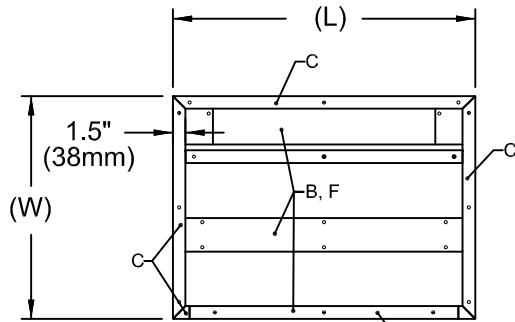
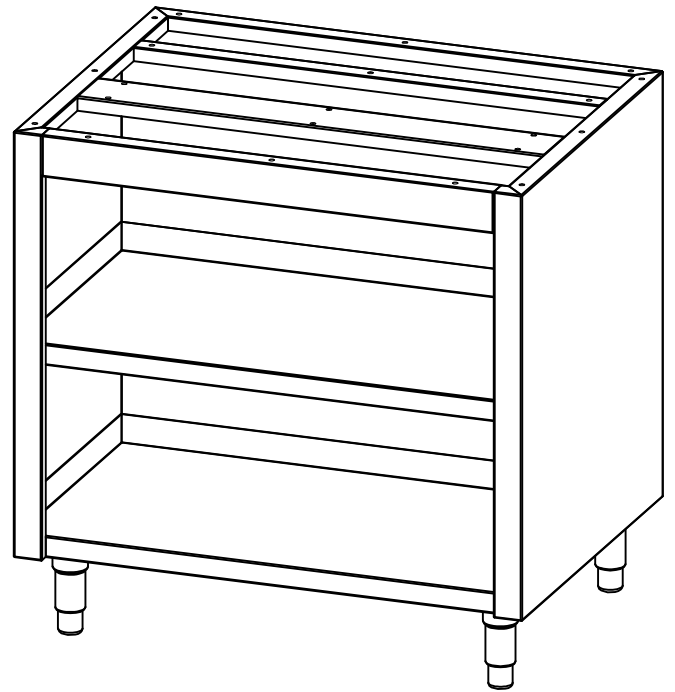
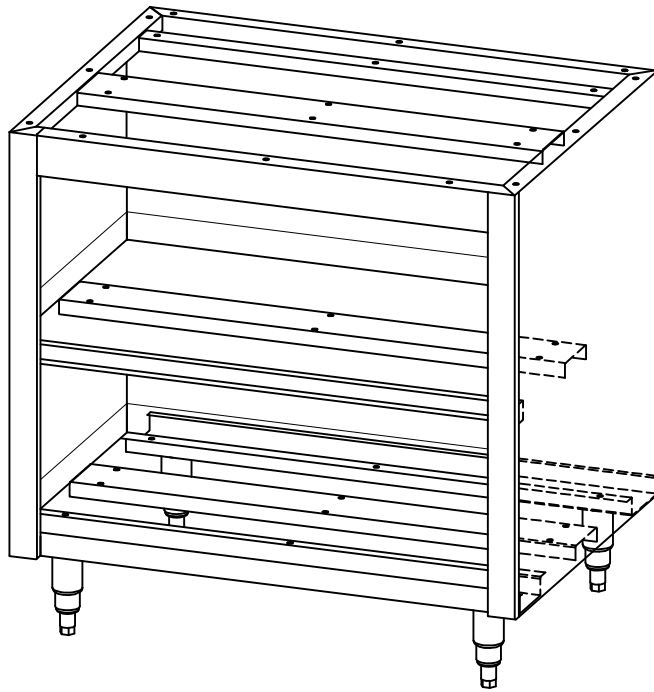
### COUNTER FRAMEWORK

NO SCALE

CONTINUED ON 1.06.1, 1.06.2  
SEE ALSO: 1.01, 1.02, 1.07

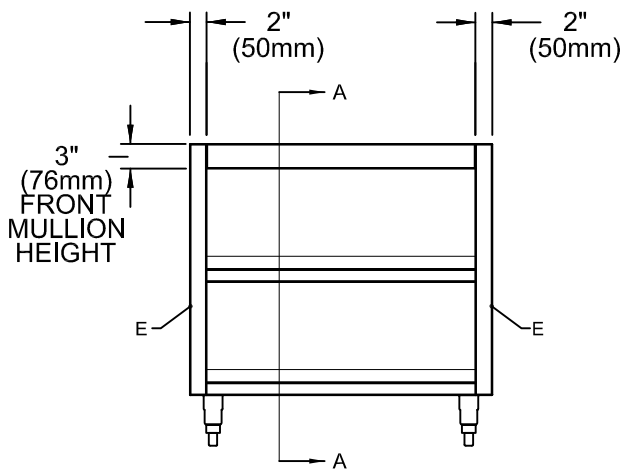
STANDARD DETAIL

# 1.06

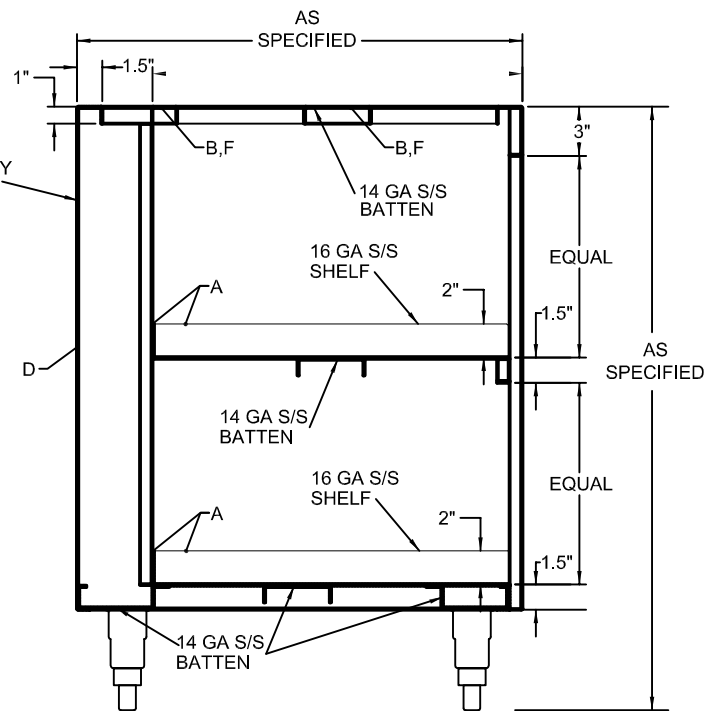


PLAN

18 GA S/S CABINET BODY



ELEVATION



SECTION A-A

REFER TO NOTES ON DTL. 1.06.2 AND DETAILS 1.01, 1.02, 1.07 AND SPECIFICATIONS FOR COUNTER

APPROVED: 05-13-13



COUNTER FRAMEWORK

NO SCALE CONTINUED ON 1.06, 1.06.2  
SEE ALSO: 1.01, 1.02, 1.07

STANDARD DETAIL

1.06.1

APPROVED: 05-13-13

- A. TACK WELDED CONSTRUCTION.
- B. SECURE TOP TO FRAMEWORK WITH WELDED STUDS, S/S LOCKWASHERS, AND S/S CAP NUTS. MAXIMUM 15" (380MM) ON CENTER.
- C. UNIBODY CONSTRUCTION – ENDS; INTERMEDIATE MAXIMUM 5'-6" (1650MM) ON CENTER
- D. CAFETERIA FRONT ANGLE (CHANNEL) LOCATION – ENDS; INTERMEDIATES TO CORRESPOND TO PILASTERS, TRAY SLIDE BRACKETS, BREATH PROTECTORS, DISPLAY SHELVES PANEL SPACING, MAXIMUM 4'-0" (1200MM) ON CENTER. RE: STANDARD DETAILS. 4.01 THRU 4.04.
- E. WORK SIDE LOCATION – ENDS; SIDE OF OPENINGS; INTERMEDIATES MAXIMUM 5'-6" (1650MM) ON CENTER.
- F. SOUND DEADEN TAPE. CHG Q85-5225 TACKY TAPE BETWEEN S/S TOP AND FRAME. SEAL WITH CLEAR SILICONE SEALANT.



**COUNTER FRAMEWORK**

NO SCALE CONTINUED ON 1.06, 1.06.1  
SEE ALSO: 1.01, 1.02, 1.07

STANDARD DETAIL

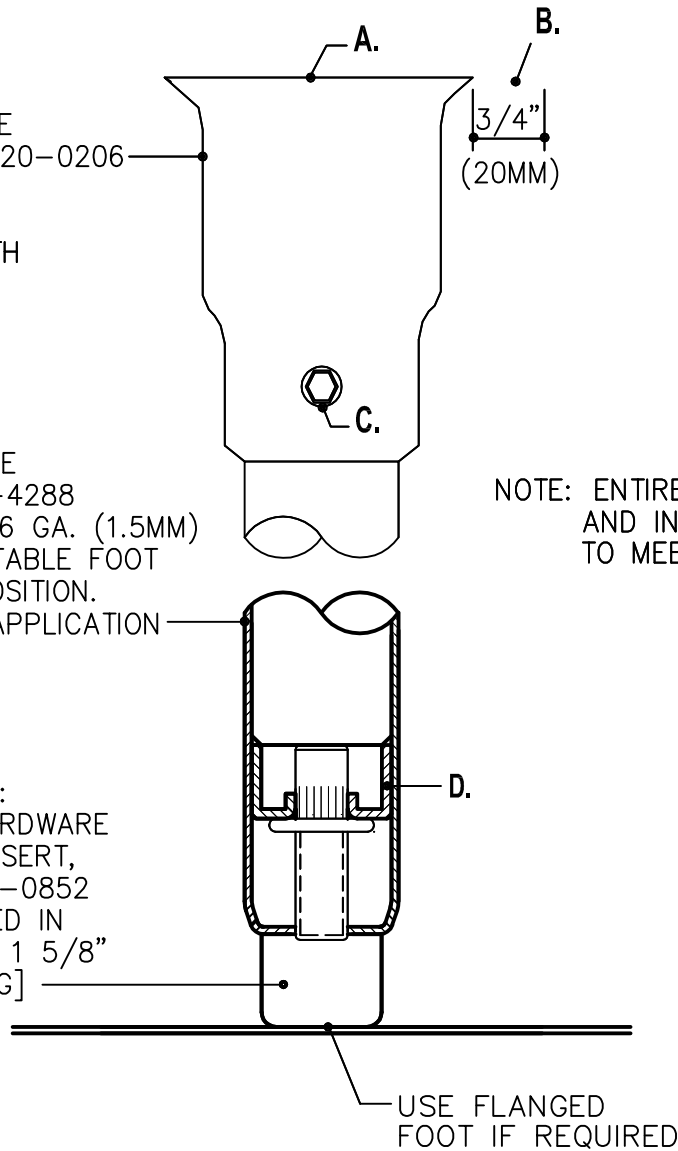
**1.06.2**

COMPONENT HARDWARE  
GUSSET, MODEL NO. A20-0206

S/S DIE-STAMPED WITH  
LOCKING SET SCREW

COMPONENT HARDWARE  
LEG, MODEL NO. A46-4288  
1 5/8" (41MM) O.D. 16 GA. (1.5MM)  
36" O.A. WITH ADJUSTABLE FOOT  
INSERT, IN CLOSED POSITION.  
ADJUST HEIGHT PER APPLICATION

ALTERNATE LEG:  
COMPONENT HARDWARE  
ROUND FOOT INSERT,  
MODEL NO. A10-0852  
[TO BE INSERTED IN  
16 GA. (1.5MM) 1 5/8"  
(41MM) O.D. LEG]



- A.** FULLY WELD GUSSET TO FRAMEWORK OR SINK.
- B.** 3/4" (20MM) MINIMUM CLEARANCE ALL AROUND.
- C.** SET SCREW NOT VISIBLE TO WORKING SIDE OF EQUIPMENT.
- D.** FOOT SET AT MIDPOINT TO ALLOW 5/8" (13MM) ADJUSTMENT UP AND 5/8" DOWN. WITHOUT THREAD EXPOSURE.

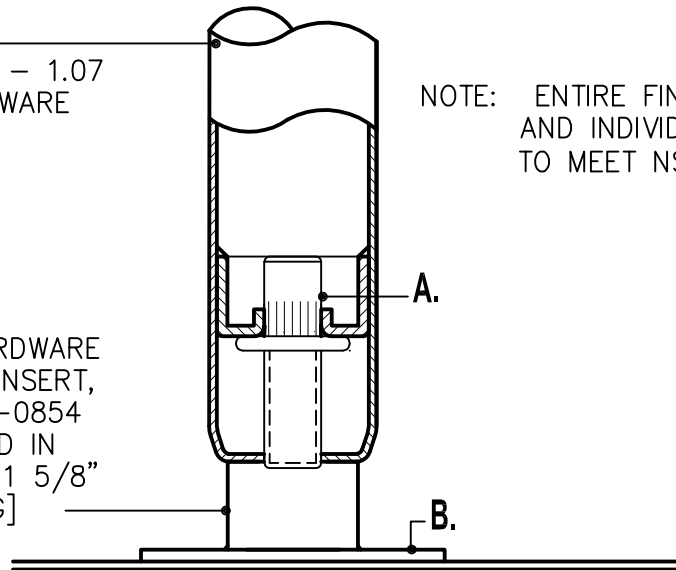
**NOTE: SEE SPECIAL DETAILS IF SEISMIC CONDITIONS APPLY**

APPROVED: 05-13-13

APPROVED: 05-13-13

LEG  
STANDARD DETAIL - 1.07  
COMPONENT HARDWARE  
A46-4288

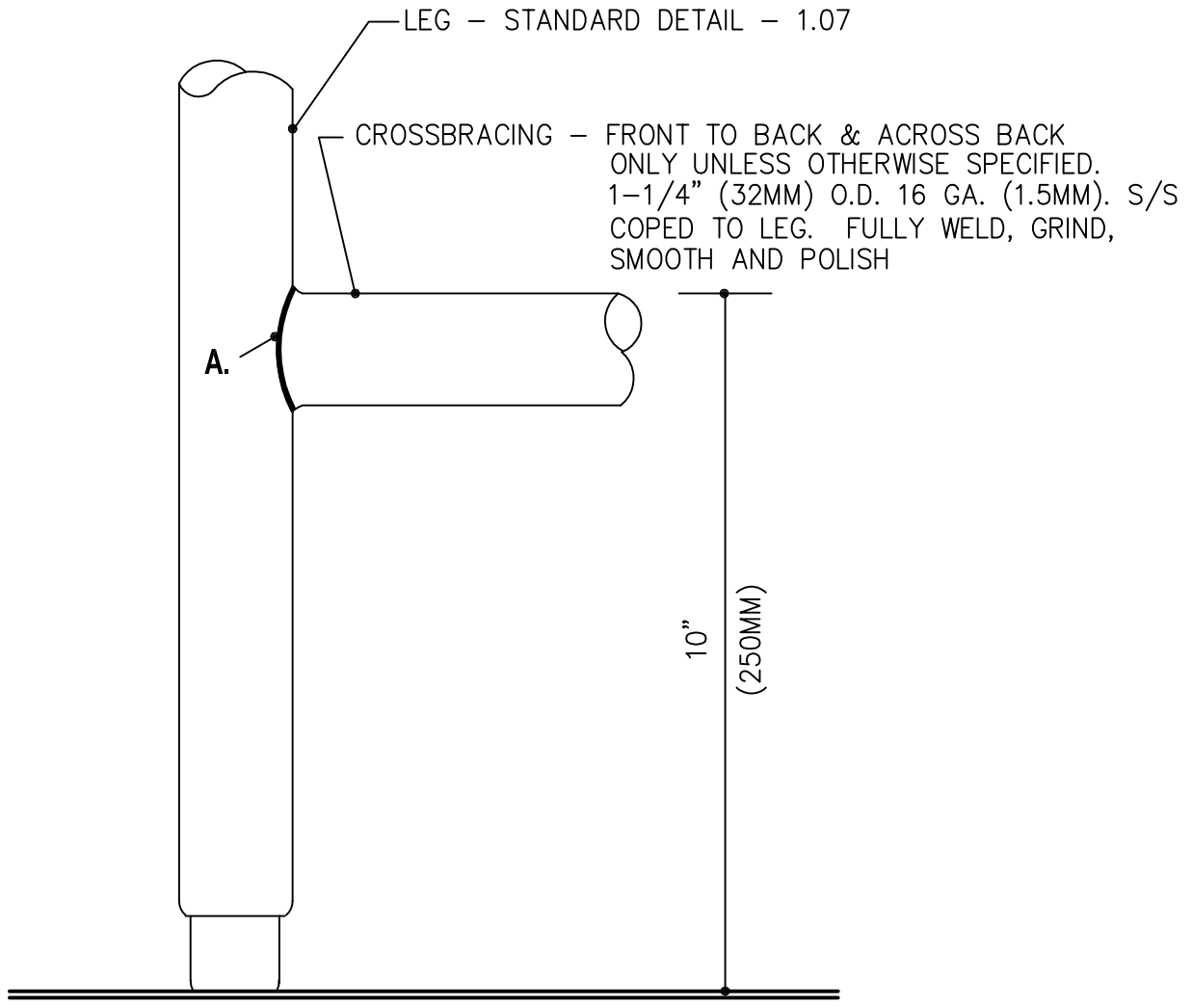
ALTERNATE LEG:  
COMPONENT HARDWARE  
FLANGED FOOT INSERT,  
MODEL NO. A10-0854  
[TO BE INSERTED IN  
16 GA (1.5MM), 1 5/8"  
(41MM) O.D. LEG]



NOTE: ENTIRE FINISHED STRUCTURE  
AND INDIVIDUAL COMPONENTS  
TO MEET NSF REQUIREMENTS

- A. FOOT SET AT MIDPOINT TO ALLOW 5/8" (16MM) ADJUSTMENT UP AND 5/8" (16MM) DOWN WITHOUT EXPOSED THREADS.
- B. ANCHOR FLANGE FOOT TO FLOOR WITH COUNTERSINK S/S BOLTS.

APPROVED: 11-01-02



A. FULLY WELD, GRIND SMOOTH AND POLISH.



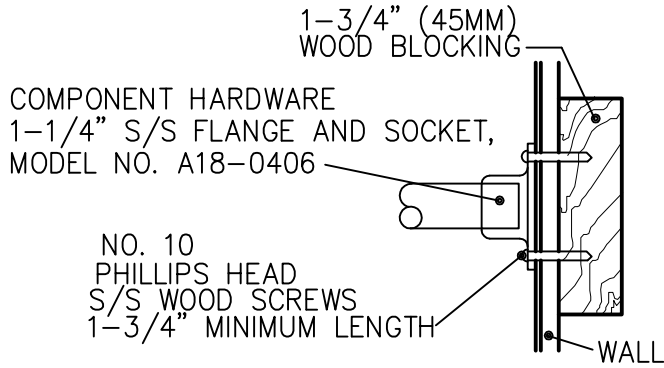
**CROSSBRACING**

NO SCALE CONTINUED ON 1.10.1 SEE ALSO 1.07

STANDARD DETAIL

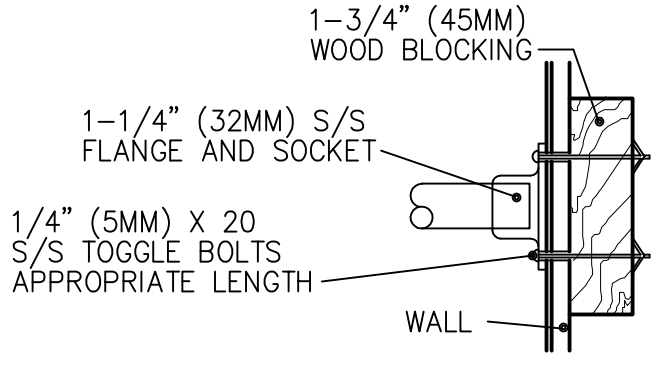
**1.10**





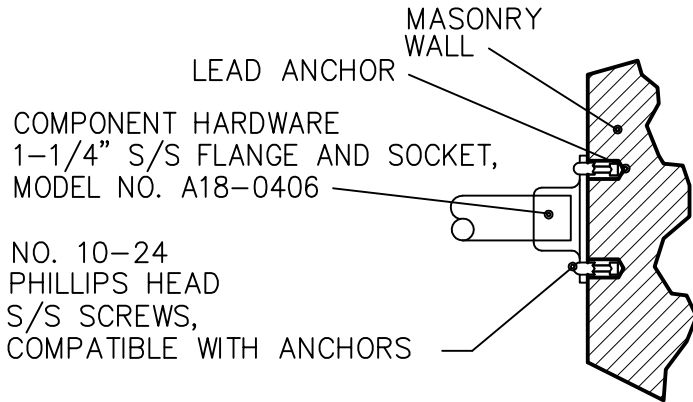
**S/S FLANGE MOUNTED WITH WOOD SCREWS**

**A**



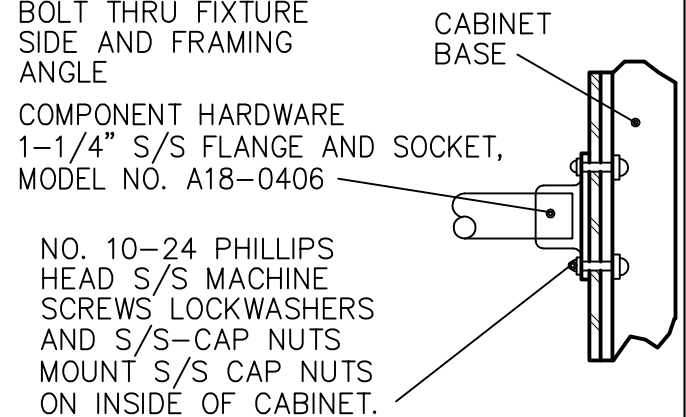
**S/S FLANGE MOUNTED WITH S/S TOGGLE BOLTS**

**B**



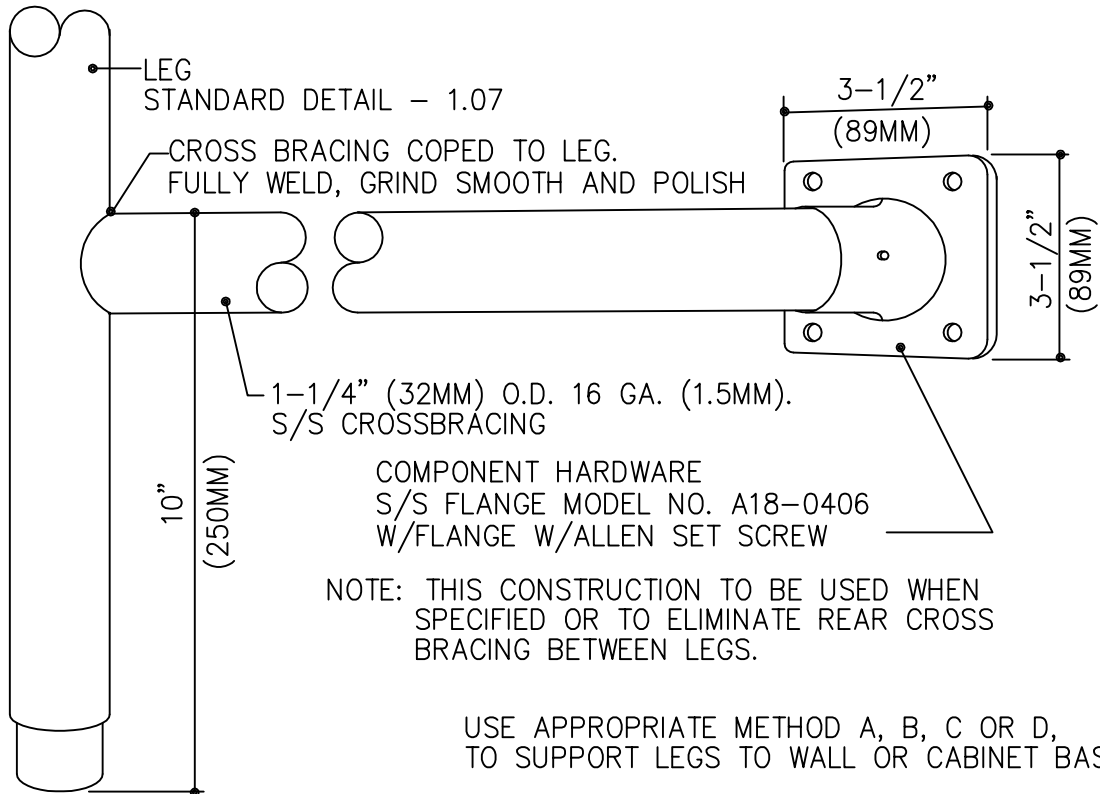
**MASONRY WALL MOUNTED**

**C**



**CABINET BASE MOUNTED**

**D**



USE APPROPRIATE METHOD A, B, C OR D, TO SUPPORT LEGS TO WALL OR CABINET BASE.

APPROVED: 11-01-02



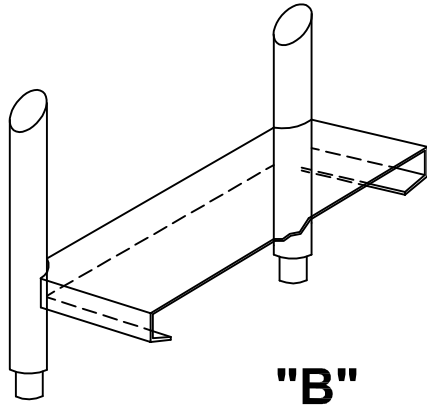
**WALL SUPPORT FOR CROSSBRACING**

NO SCALE

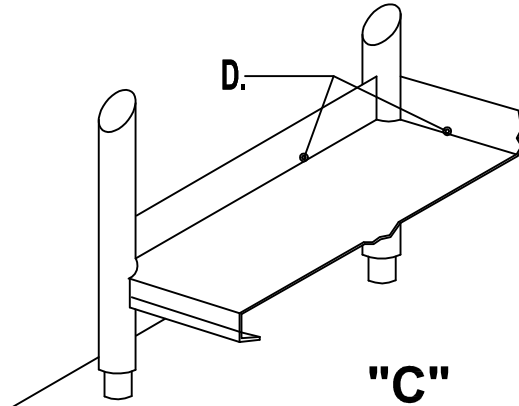
SEE ALSO 1.07 & 1.10

STANDARD DETAIL

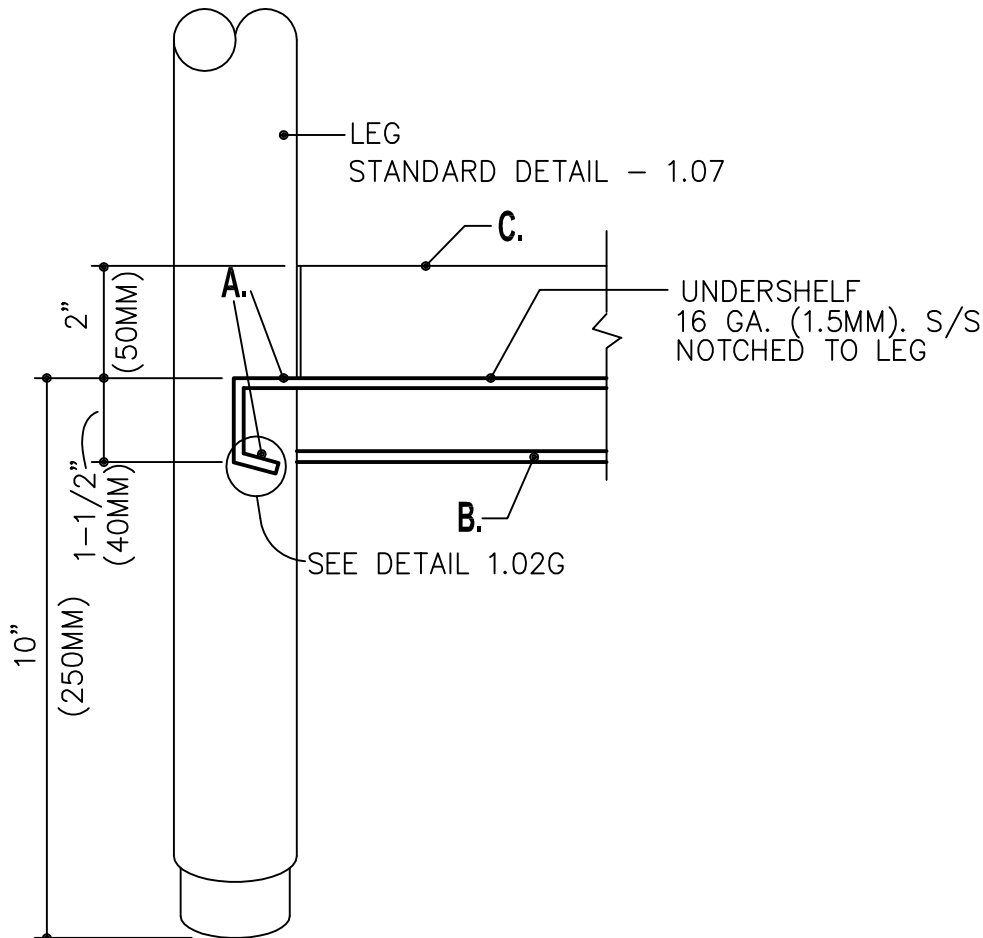
**1.10.1**



**"B"**



**"C"**



- A. FULLY WELD VERTICAL SURFACES. SILICONE HORIZONTAL SURFACE TO LEG.
- B. ON ISLAND TABLES, TURN DOWN ALL SIDES AS SHOWN IN "B" UNLESS OTHERWISE SPECIFIED.
- C. ON TABLES AGAINST WALLS, TURN REAR AND ENDS UP 2" (50MM) AS SHOWN IN "C" UNLESS OTHERWISE SPECIFIED.
- D. COVED BEND ACCEPTABLE, BUT NOT REQUIRED.

APPROVED: 05-13-13

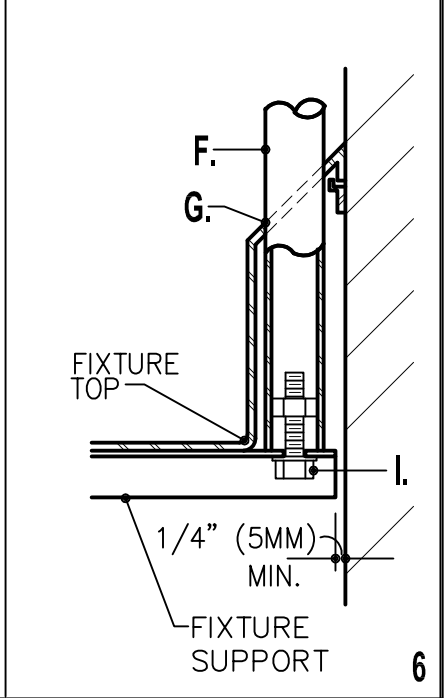
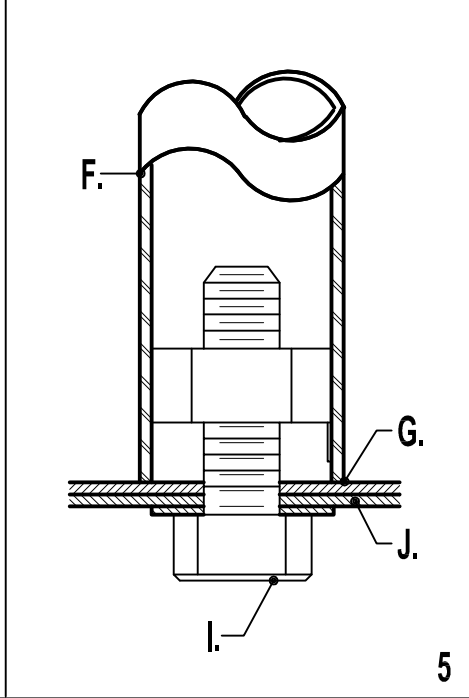
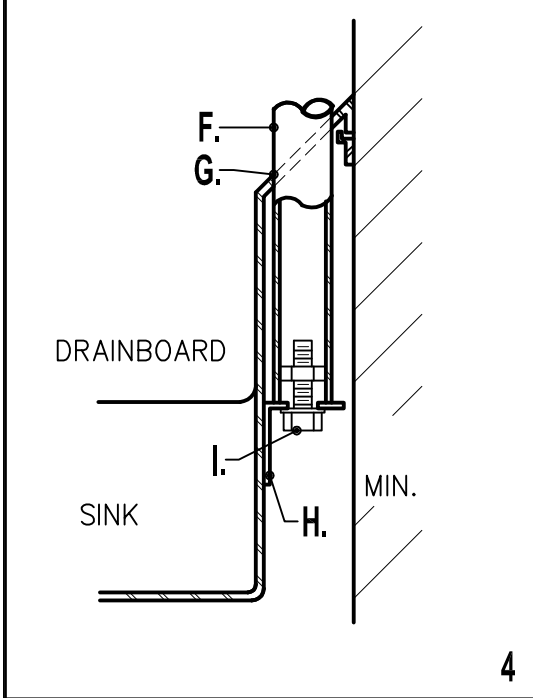
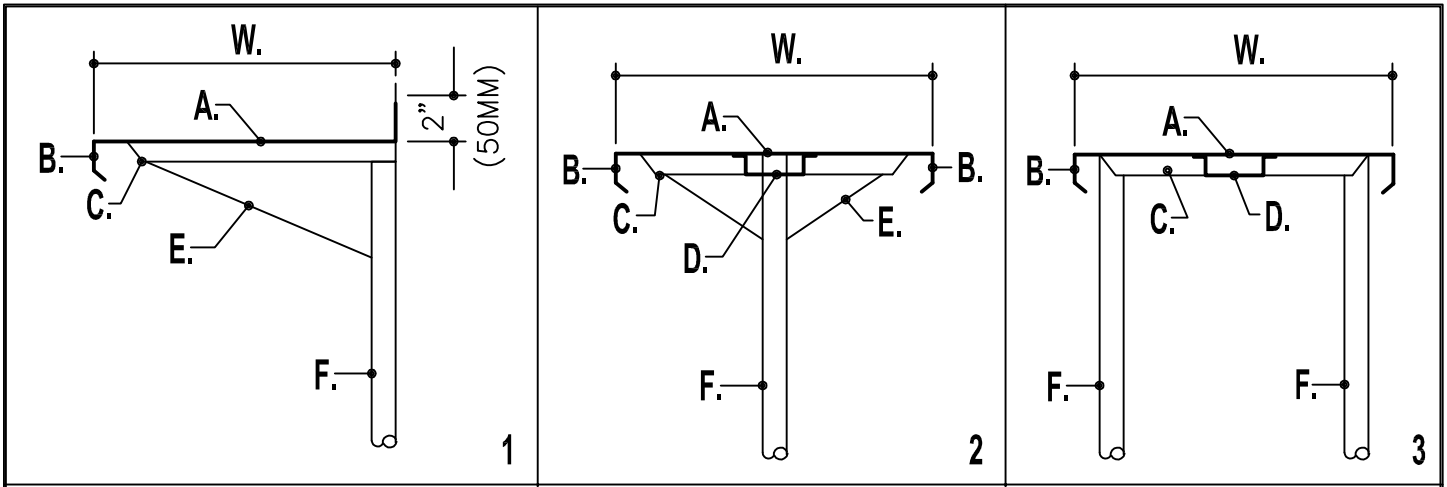


**UNDERSHELF**  
NO SCALE

SEE ALSO: 1.02G, 1.07

STANDARD DETAIL

**1.11**



- A.** 16 GA. (1.5MM) S/S SHELF.
- B.** STANDARD DETAIL – 1.02J EDGE AS SPECIFIED.
- C.** 1-1/2" X 4" X 1-1/2" (38MM X 100MM X 38MM) 14 GA. HAT BATTEN (1.8MM) S/S CHANNEL WITH CHAMFERED ENDS.
- D.** 1-1/2" X 4" X 1-1/2" (38MM X 100MM X 38MM) 14 GA. HAT BATTEN (1.8MM) S/S LENGTHWISE CHANNEL WHEN LENGTH BETWEEN SUPPORTS EXCEEDS 42" (1050MM).
- E.** 14 GA. (1.8MM) S/S BRACKETS FULLY WELDED TO SUPPORT CHANNEL.
- F.** 1-5/8" (40MM) O.D. 16 GA. (1.5MM) S/S UPRIGHT. MAXIMUM 5'-0" (1525MM) ON CENTER.
- G.** TIGHT FIT & SEAL.
- H.** 1-1/2" X 1-1/2" (40MM X 40MM) 12 GA. S/S CLIPS WELDED TO REAR OF SINK AT DRAINBOARD HEIGHT W/HOLE FOR BOLT TO SECURE UPRIGHT.
- I.** 3/8" (10MM) 16 GA. (1.5MM) S/S HEX HEAD BOLT, COMPONENT HARDWARE & S/S LOCKWASHER W/ J58-0014 PLATED STEEL NUT. NUT WELDED IN UPRIGHT F.
- J.** SECURE TO HAT CHANNEL.
- W.** WIDTH AS SPECIFIED.

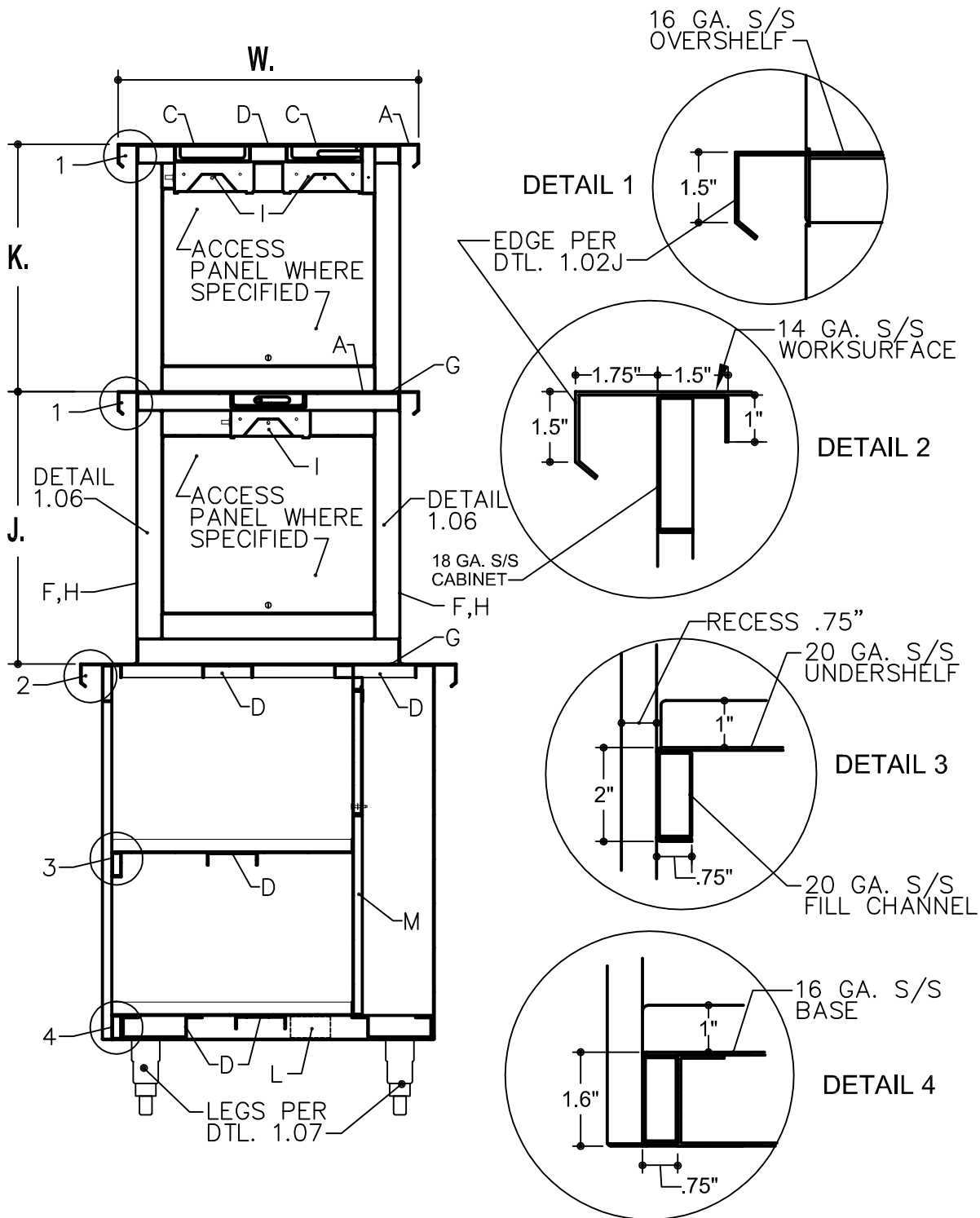
APPROVED: 05-13-13



**OVERSHELVES AND SUPPORTS**  
 NO SCALE  
 CONTINUED ON 1.12.1  
 SEE ALSO: 1.02, 1.12.1, 1.12.2, 4.02, 4.03

STANDARD DETAIL  
**1.12**

APPROVED: 05-13-13



**CABINET WITH DOUBLE OVERSHELF AND HEAT LAMP**

NO SCALE

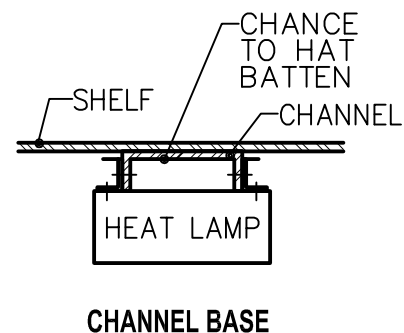
CONTINUED ON 1.12.2  
SEE ALSO 1.12, 1.12.2, 1.02, 4.02, 4.03

STANDARD DETAIL

**1.12.1**

CHASE FOR ELECTRICAL TO GET FROM SHELF TO CABINET

- A.** 16 GA. (1.5MM). S/S SHELF.
- B.** EDGE – STANDARD DETAIL – 1.02 OR AS SPECIFIED.
- C.** 1 1/2" X 4" X 1 1/2" (38MM X 100MM X 38MM) 14 GA. (1.8MM) S/S HAT BATTEN CHANNEL.
- D.** 1 1/2" X 4" X 1 1/2" (38MM X 100MM X 38MM) 14 GA. (1.8MM) S/S LENGTHWISE CHANNEL, WHEN LENGTH BETWEEN SUPPORTS EXCEEDS 42" (1050MM) HAT BATTEN.
- E.** SECURE LEGS PER STANDARD DETAIL – 1.06. EXPANSION FASTENER TO SECURE LEGS.
- F.** 1 5/8" (40MM) O.D. 16 GA. (1.5MM) S/S REAR UPRIGHTS. MAXIMUM 5'-0" (1525MM) ON CENTER.
- G.** TIGHT FIT & SEAL.
- H.** 1" (25MM) O.D. 16 GA. (1.5MM) S/S FRONT UPRIGHTS. MAXIMUM 5'-0" (1525MM) ON CENTER. WELD TO BOTTOM COUNTER FRAMING AND EXTEND UP THRU COUNTER TOP FRAMING COUNTER TOP AND LOWER OVERSHELF AND FULLY WELD TO UPPER AND LOWER OVERSHELF CROSS CHANNELS AND UNDERSIDE OF COUNTER TOP. CUT 3/4" (20MM) DIAMETER HOLES IN SIDE OF UPRIGHTS AT TOP AND BOTTOM AS REQUIRED FOR PASSAGE OF FLEXIBLE ELECTRIC CONDUIT. PROVIDE GROMMETS IN HOLES.
- I.** HEAT LAMP AS SPECIFIED.
- J.** HEIGHT AS SPECIFIED.
- K.** HEIGHT AS SPECIFIED.
- L.** JUNCTION BOX SECURED TO TABLE FRAMING WITH 1/4" (5MM) X 20 S/S BOLTS, LOCK WASHER, AND NUTS. DELETE IF COUNTER CONTAINS AN INTEGRAL ELECTRICAL CIRCUIT BREAKER PANEL.
- M.** IF COUNTER CONTAINS AN INTEGRAL ELECTRICAL CIRCUIT BREAKER PANEL, RUN WIRING OUT THRU SIDE OF FRONT UPRIGHT AND EXTEND TO PANEL.
- W.** WIDTH AS SPECIFIED.



HEAT LAMP INSTALLATIONS

APPROVED: 05-13-13



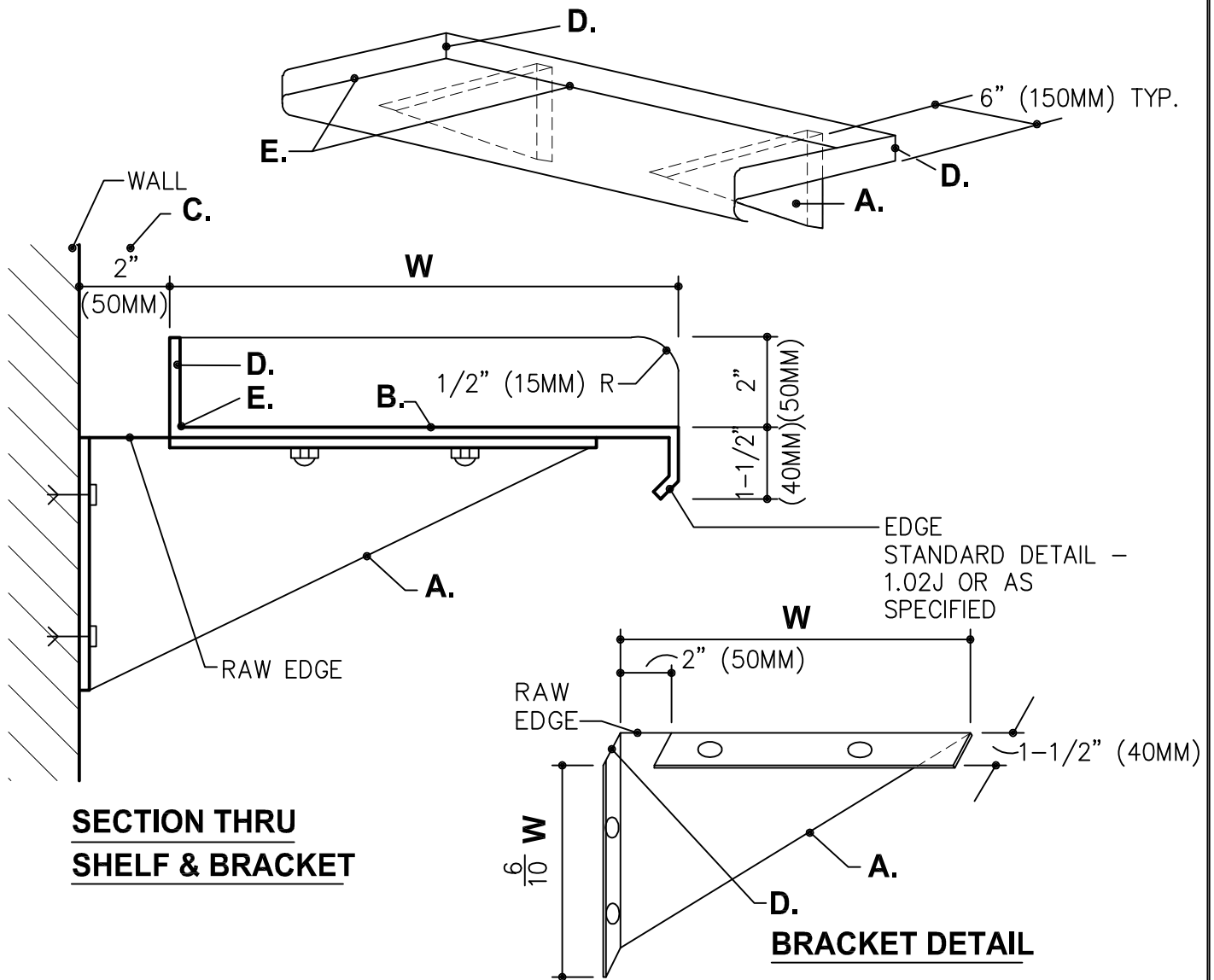
CABINET WITH DOUBLE OVERSHELF AND HEAT LAMP

NO SCALE

SEE ALSO 1.12, 1.12.1, 1.02, 4.02, 4.03

STANDARD DETAIL

1.12.2



**SECTION THRU SHELF & BRACKET**

**BRACKET DETAIL**

- A.** TWO 14 GA. (1.8MM) S/S BRACKETS TO BE SUPPLIED ON SHELVES UP TO 6'-0" (1800MM) IN LENGTH. SHELVES LONGER THAN 6'-0" (1800MM) TO HAVE ADDITIONAL SUPPORTS EQUALLY SPACED. MAXIMUM OF 5'-0" (1525MM) BETWEEN BRACKET EACH BRACKET DRILLED AND SECURED TO WALL WITH A MINIMUM OF TWO 1/4" (5MM) X 20 S/S ROUNDHEAD BOLTS AND S/S LOCKWASHERS ANCHORED WITH TOGGLES OR LEAD EXPANSION SHIELDS. VERIFY WALL CONSTRUCTION AND PROVIDE BACKING IF REQUIRED. SEE DTL. 7.07.
- B.** SHELF 16 GA. (1.5MM) S/S CONSTRUCTION WITH ALL JOINTS WELDED, GROUND SMOOTH AND POLISHED. SHELVES TO HAVE STUDS WELDED TO UNDERSIDE. DRILL BRACKET, FASTEN WITH S/S LOCKWASHERS AND S/S CAP NUTS.
- C.** 2" (50MM) CLEAR REAR AND ENDS.
- D.** FULLY WELD, GRIND SMOOTH AND POLISH.
- E.** COVED BEND ACCEPTABLE, BUT NOT REQUIRED.
- W.** WIDTH, AS SPECIFIED.

APPROVED: 05-13-13



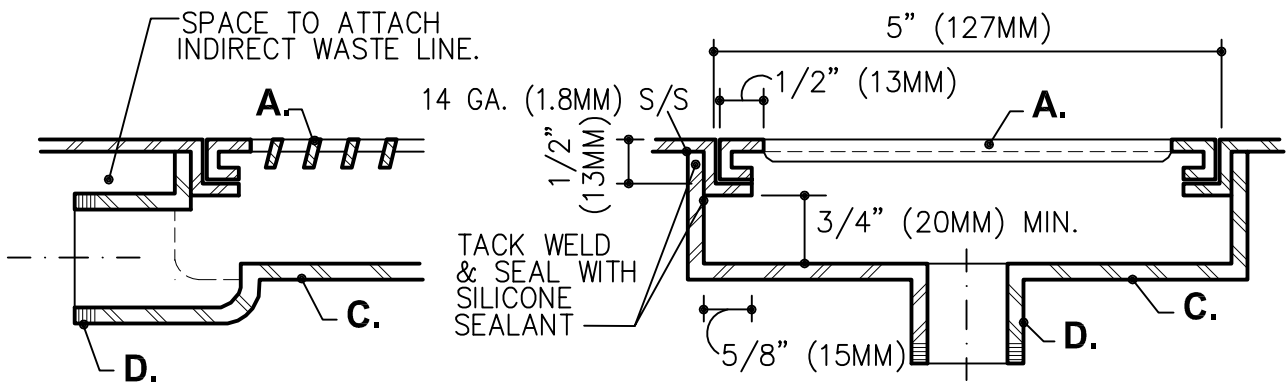
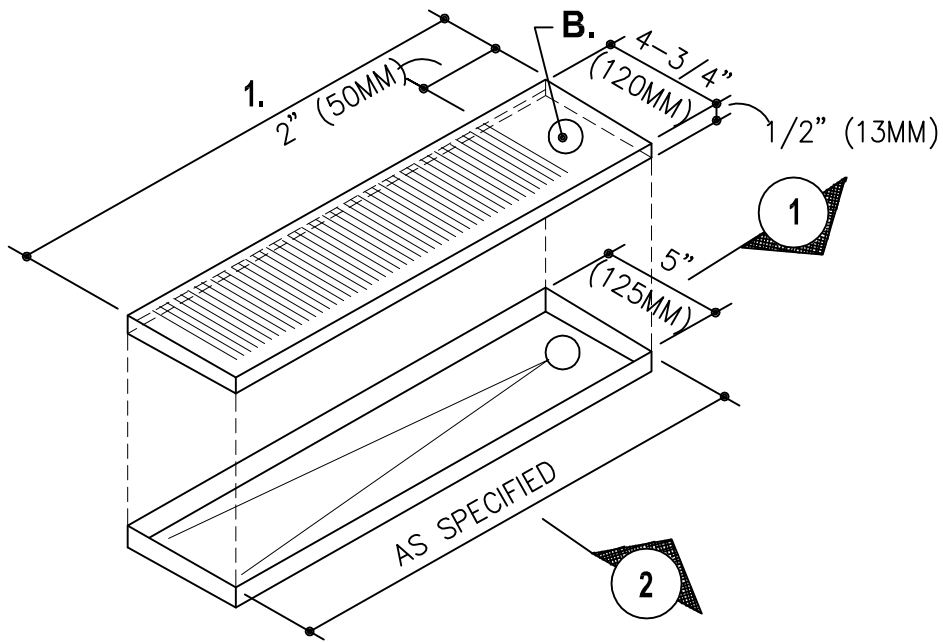
**WALL SHELF AND SUPPORT**

NO SCALE

SEE ALSO: 1.02J, 7.07

STANDARD DETAIL

**1.13**



### **PARTIAL SECTION 1**

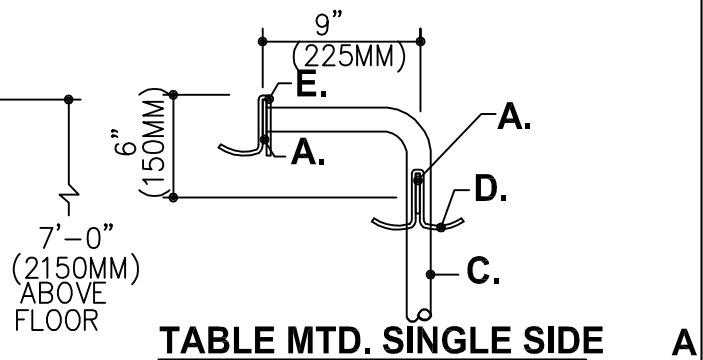
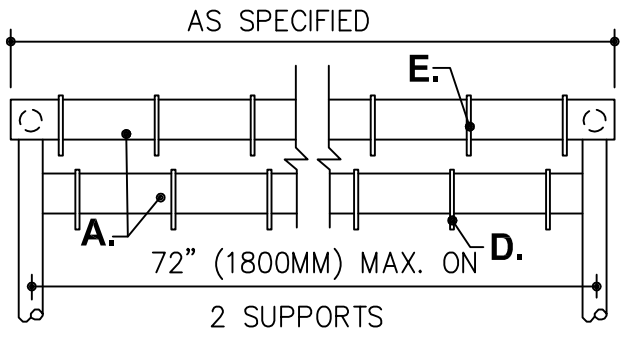
STANDARD END WASTE SHOWN.

### **SECTION 2**

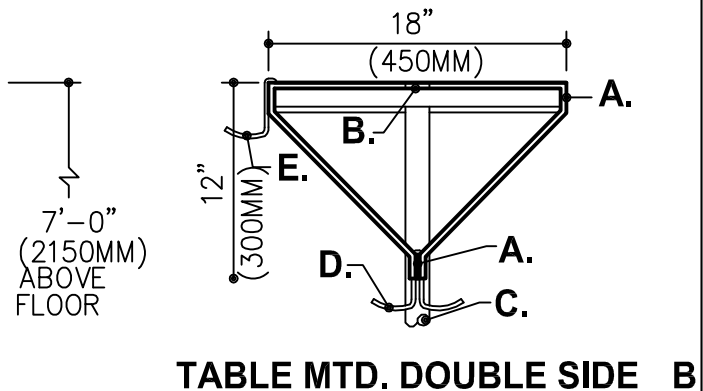
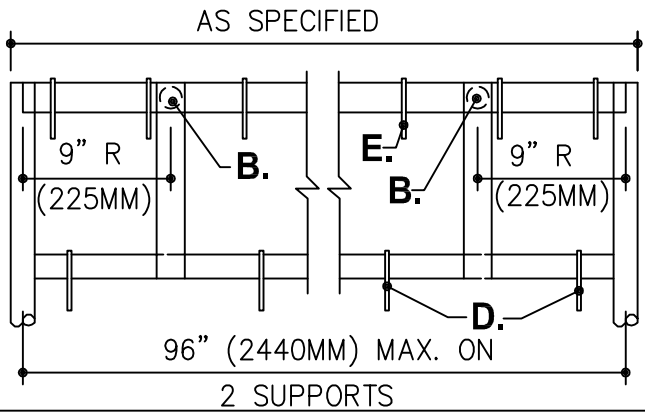
BOTTOM WASTE SHOWN.  
USE ONLY WHEN SPECIFIED

- A.** 20 GA. S/S ANTI-SPLASH DRAINER MODEL J80-5107 AS MFD. BY COMPONENT HARDWARE GROUP CLOSE AND WELD ENDS. 24" (610MM) MAXIMUM SINGLE LENGTH.
- B.** 1" (25MM) DIAMETER FINGER HOLE, ONE END ONLY, GRIND SMOOTH AND POLISH.
- C.** 16 GA. (1.2MM). S/S PAN FULLY WELDED TO FIXTURE TOP. PITCH BOTTOM TO WASTE 1/4" PER FOOT (2MM PER 100MM).
- D.** 1" (25MM) O.D. S/S INDIRECT WASTE EXTENDED TO FLOOR DRAIN. STANDARD LOCATION AT CENTER OF END OF TROUGH, NEAREST FLOOR DRAIN. WHEN SPECIFIED PROVIDE LOCATION AT BOTTOM OF TROUGH. (SECTION 2) EXTENDED WASTE LINE NOT TO BE VISIBLE.
- 1.** DRAINER LENGTH AS SPECIFIED LESS 1/4" (5MM). WHEN LENGTH OF DRAINER EXCEEDS 24" (610MM) PROVIDE EQUAL LENGTH MULTIPLE UNITS.

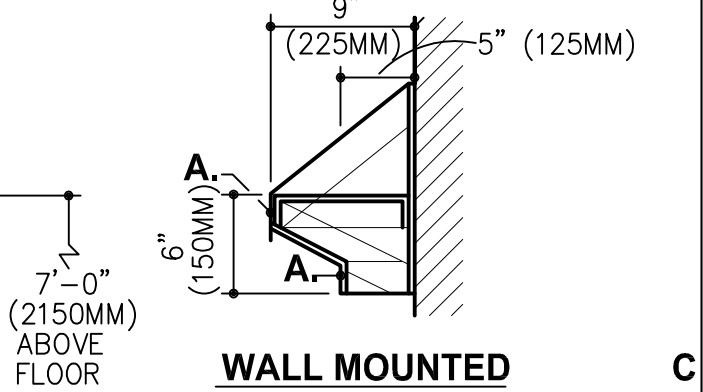
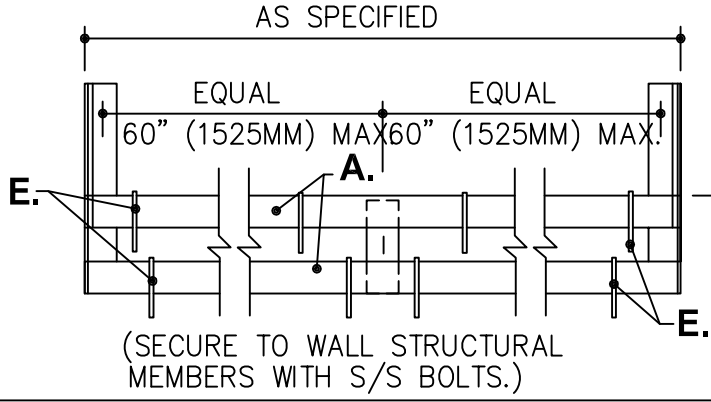
APPROVED: 11-01-02



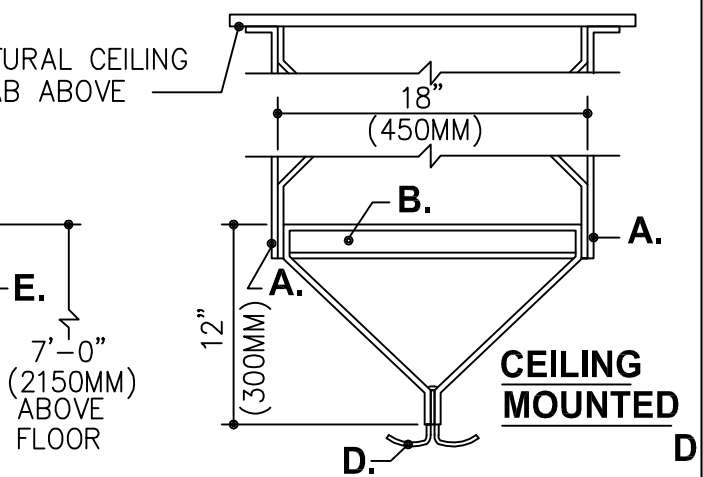
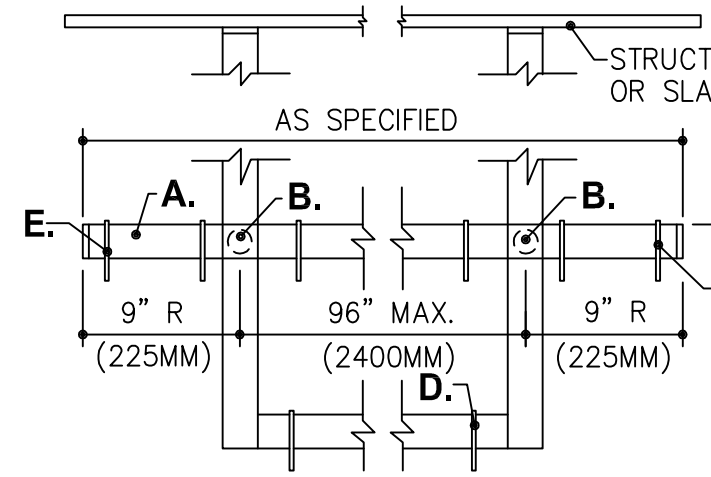
**TABLE MTD. SINGLE SIDE A**



**TABLE MTD. DOUBLE SIDE B**



**WALL MOUNTED C**



**CEILING MOUNTED D**

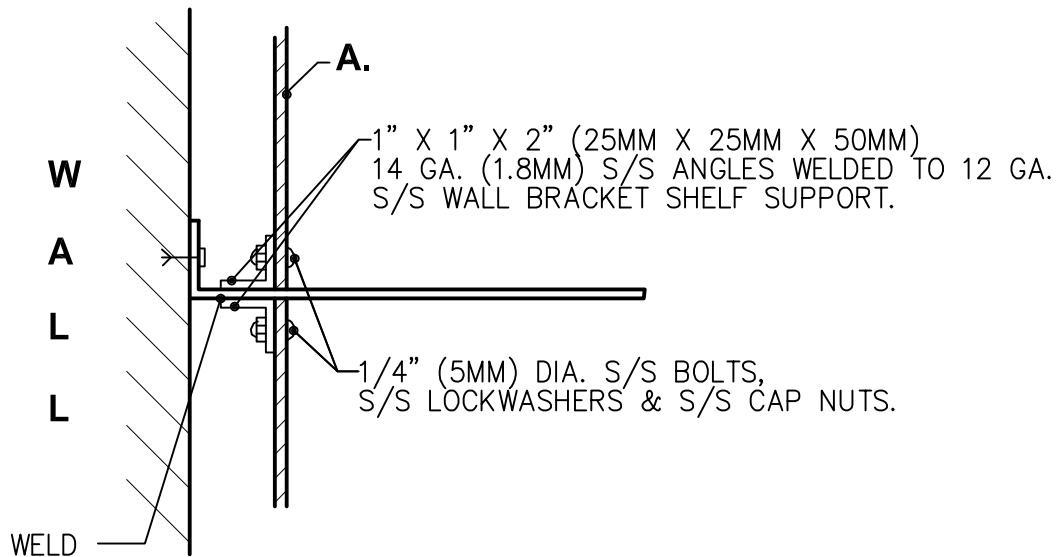
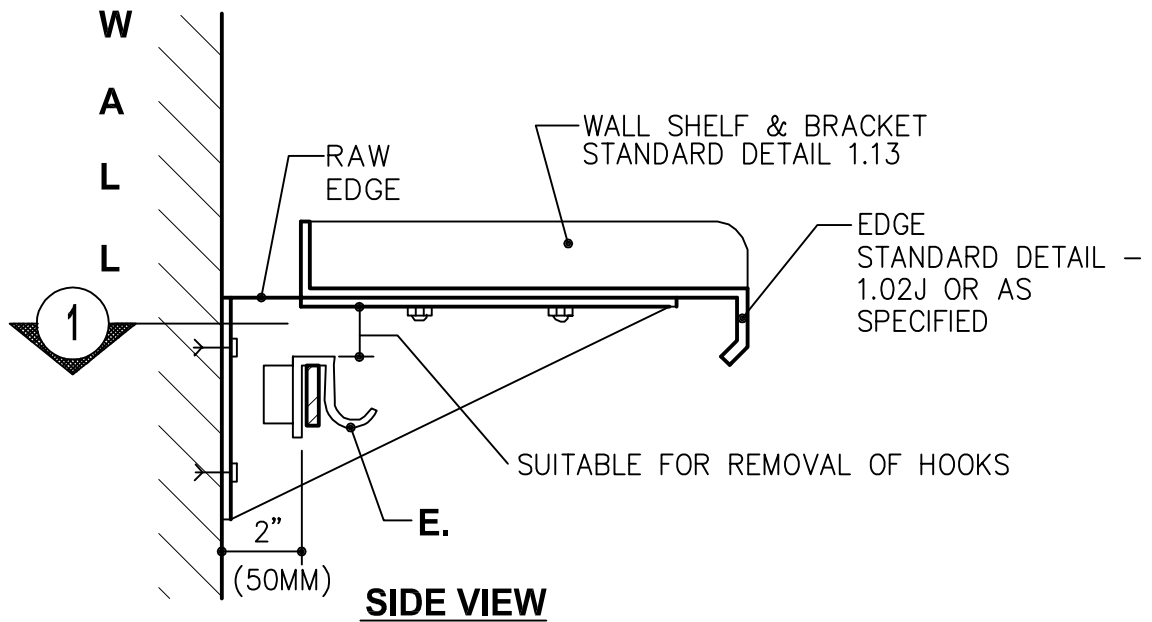
(SECURE TO CEILING STRUCTURAL MEMBERS OR SLAB ABOVE WITH S/S BOLTS.)

RACKS TO BE ALL WELDED CONSTRUCTION, GROUND SMOOTH AND POLISHED.

APPROVED: 11/01/02







**WALL SHELF UTENSIL RACK**

**E**

- A.** BANDS – 1/4" X 2" (5MM X 50MM) S/S BAR.
- B.** SPREADERS – 1" (25MM) O.D. 16 GA. (1.5MM) S/S.
- C.** UPRIGHTS – 1-5/8" (41MM) O.D. 16 GA. (1.5MM) S/S. RUN THROUGH COUNTER TOPS INTO LEG UNDER FRAME FOR SUPPORT.
- D.** HOOKS – S/S DOUBLE PRONG SNAP-OVER COMPONENT HARDWARE GROUP NO. 77-4401, 6" (150MM) ON CENTER
- E.** COMPONENT HARDWARE GROUP NO. J79-4115 HOOKS, 6" (150MM) ON CENTER.

APPROVED: 05-13-13



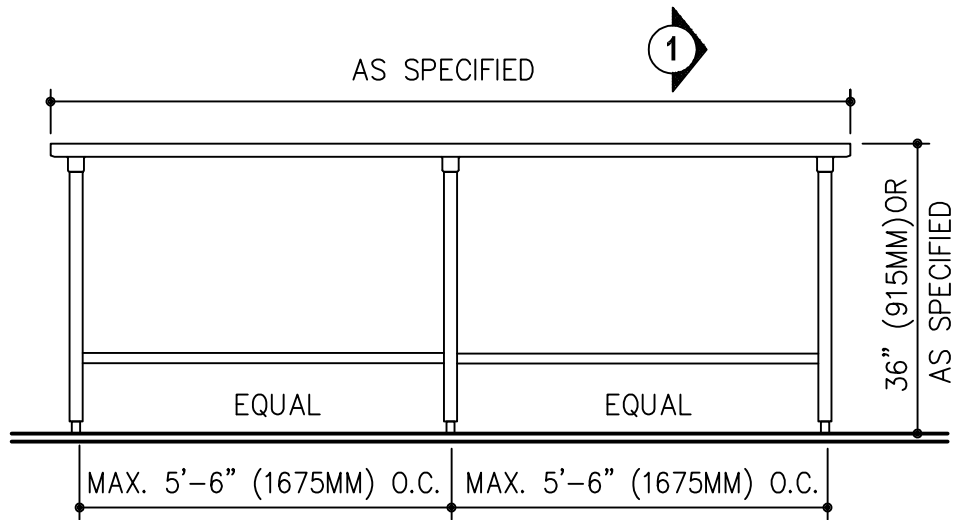
**POT AND UTENSIL RACKS**

NO SCALE

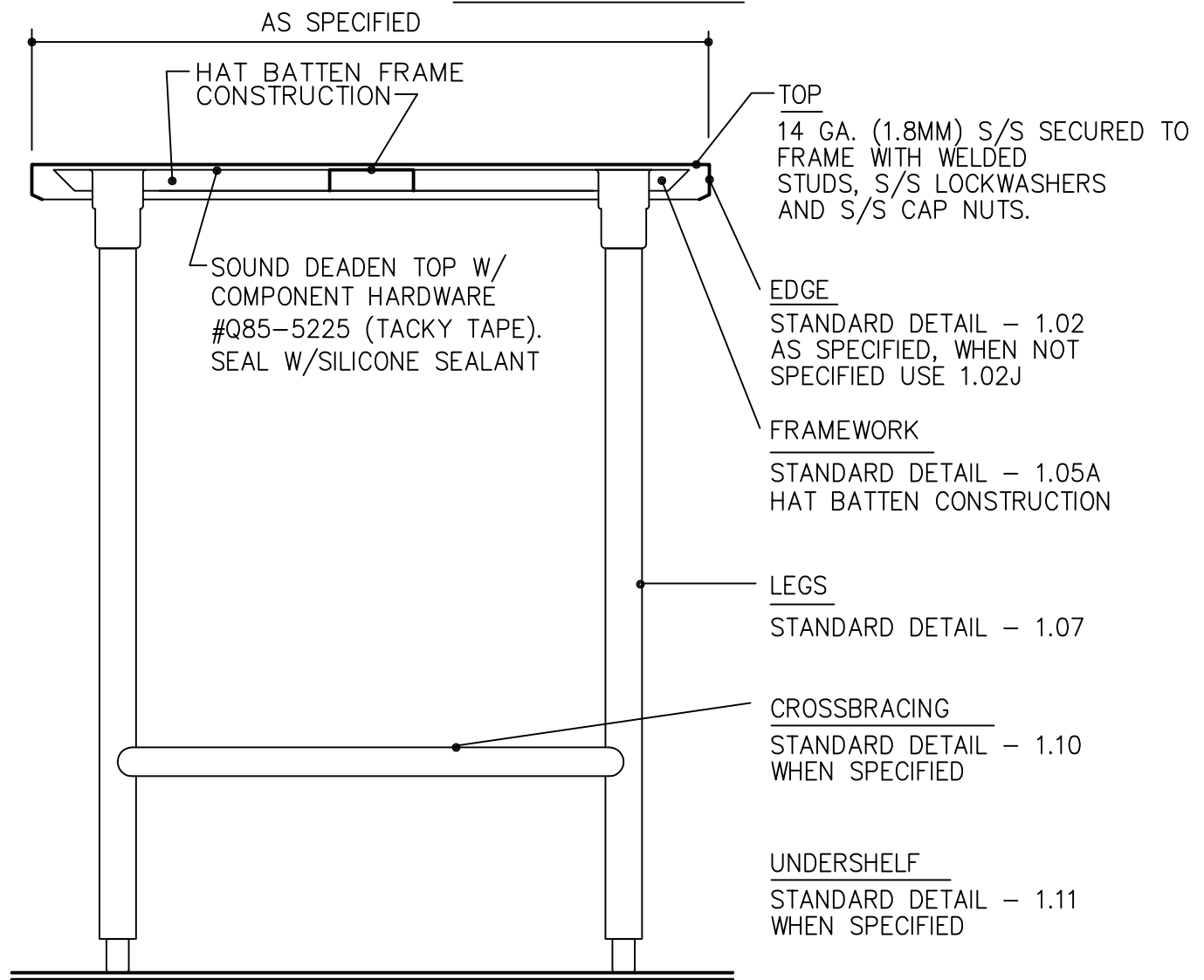
SEE ALSO 1.18 & 1.13

STANDARD DETAIL

**1.18.1**



**FRONT ELEVATION**



**SECTION 1**

APPROVED: 05-13-13

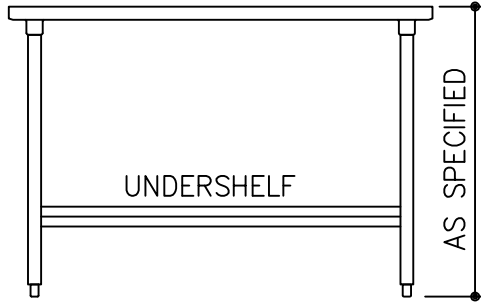
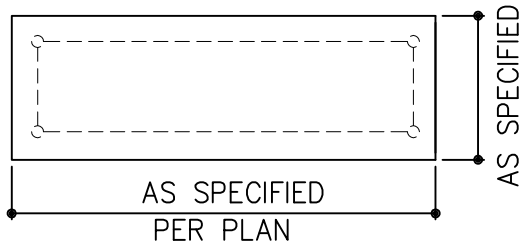


**WORK TABLE**

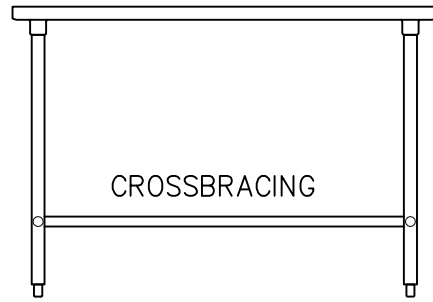
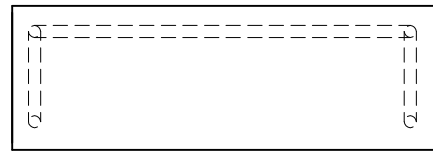
NO SCALE CONTINUED ON 2.01.1  
SEE ALSO 1.02, 1.05, 1.07, 1.10, 1.11

STANDARD DETAIL

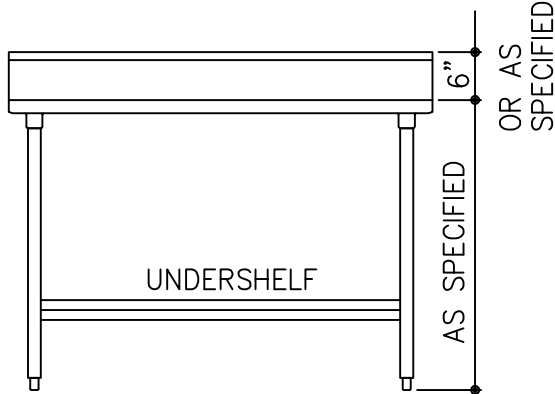
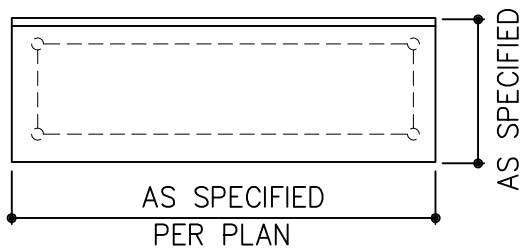
**2.01**



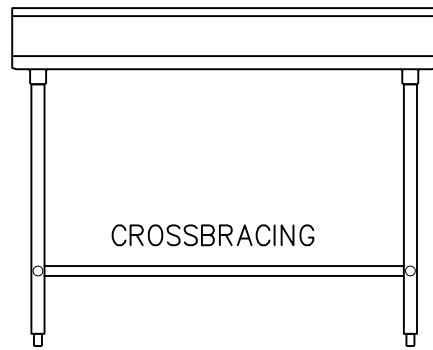
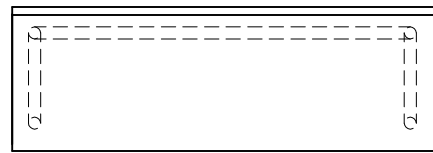
**"A" ISLAND TABLE-UNDERSHELF**



**"B" ISLAND TABLE-CROSSBRACING**

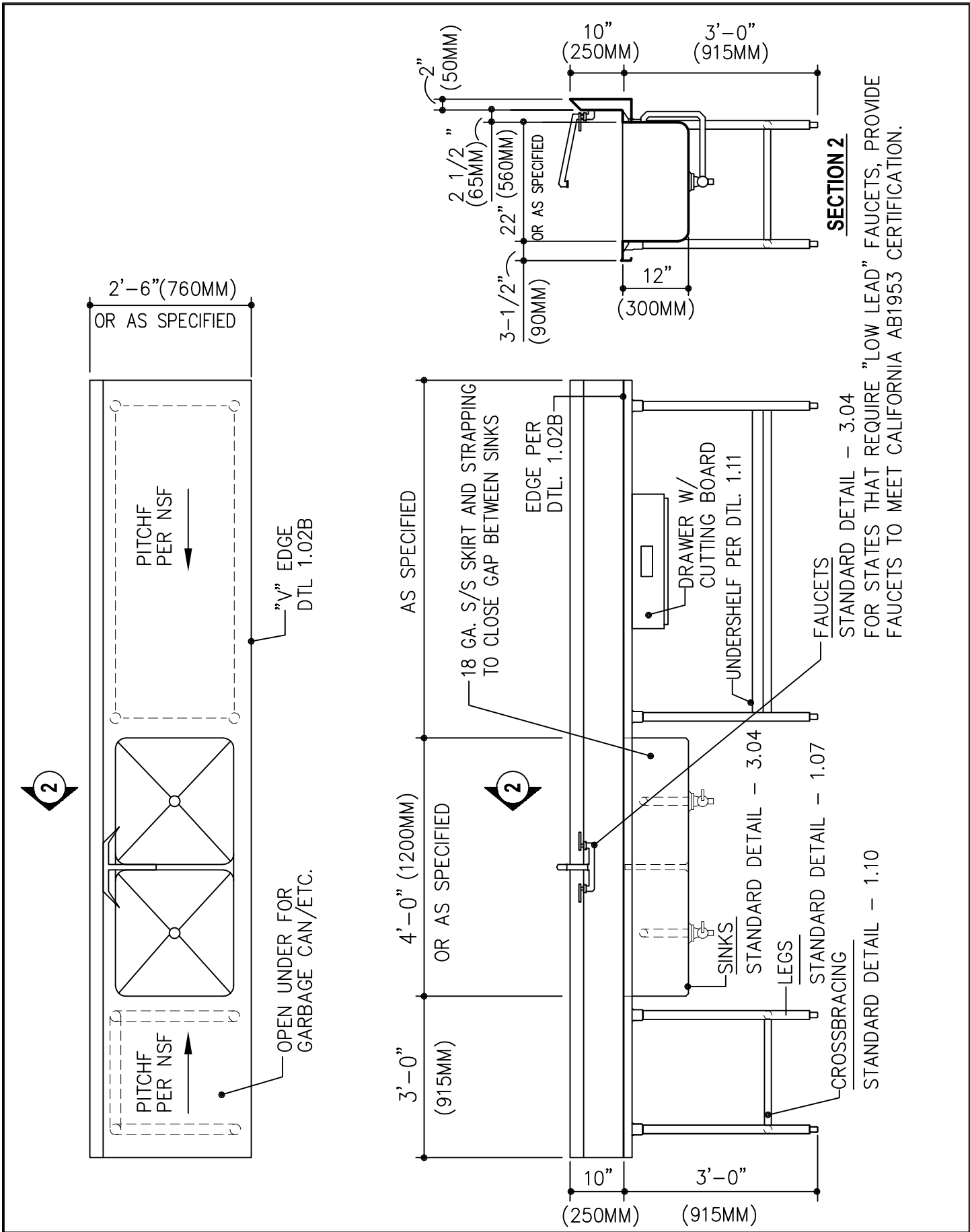


**"C" TABLE W/SPLASH-UNDERSHELF**



**"D" TABLE W/ SPLASH-CROSSBRACING**

APPROVED: 05-13-13



**PREP. TABLE WITH SINKS**  
 NO SCALE SEE ALSO 1.02, 1.05, 1.07, 1.10, 1.11, 3.04

STANDARD DETAIL  
**2.01.2**

**SECTION 2**  
 STANDARD DETAIL - 3.04  
 FOR STATES THAT REQUIRE "LOW LEAD" FAUCETS, PROVIDE  
 FAUCETS TO MEET CALIFORNIA AB1953 CERTIFICATION.

APPROVED: 05-13-13

**14GA. (1.8MM) S/S TOP**

STANDARD  
DETAIL -  
2.01

**EDGE**

STANDARD  
DETAIL -  
1.02J OR AS  
SPECIFIED

**FRAME**

STANDARD  
DETAIL -  
1.05A

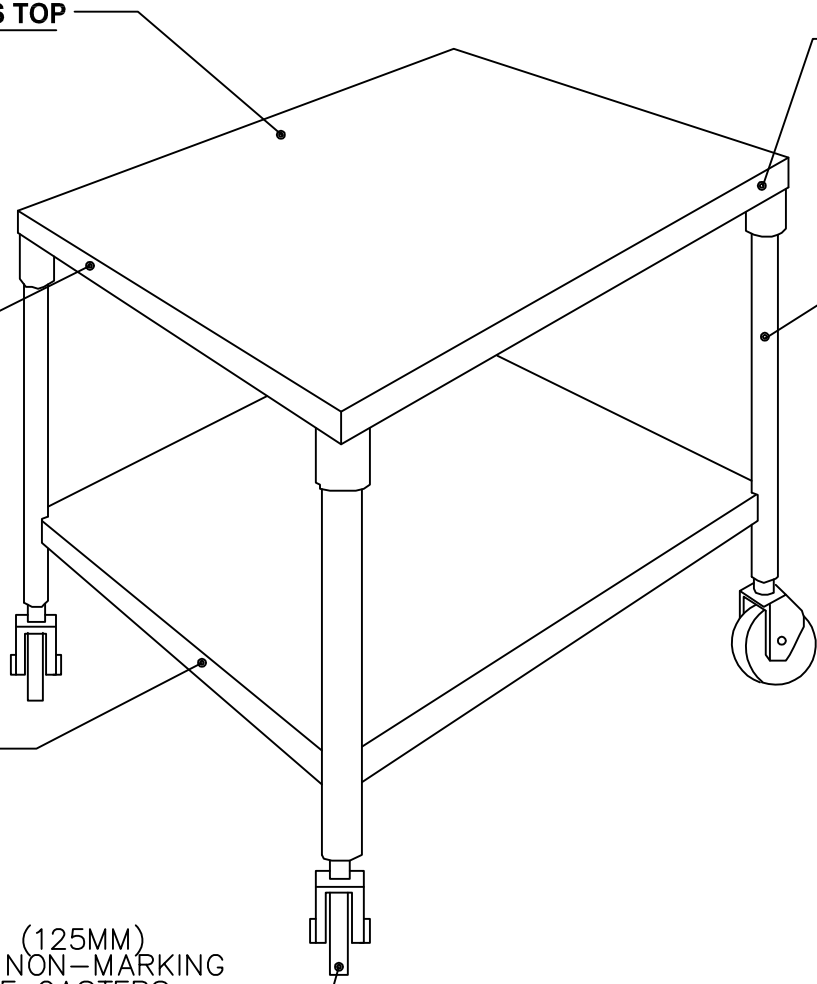
**LEGS**

STANDARD  
DETAIL -  
1.07

**UNDERSHELF**

STANDARD  
DETAIL -  
1.11

MOUNT (4) 5" (125MM)  
HEAVY DUTY, NON-MARKING  
POLYURETHANE CASTERS  
(250 LBS MIN CAPACITY  
EACH) (2) WITH TOE  
OPERATED SWIVEL AND TIRE  
LOCKS (54) SERIES AT  
325 LBS EACH BY JARVIS  
5-54-213GSLI SWIVEL LOCK)



**DIMENSIONS & HEIGHT AS SPECIFIED**



**MOBILE UTILITY TABLE**

NO SCALE

SEE ALSO 1.02, 1.05A, 1.07, 1.11, 2.01

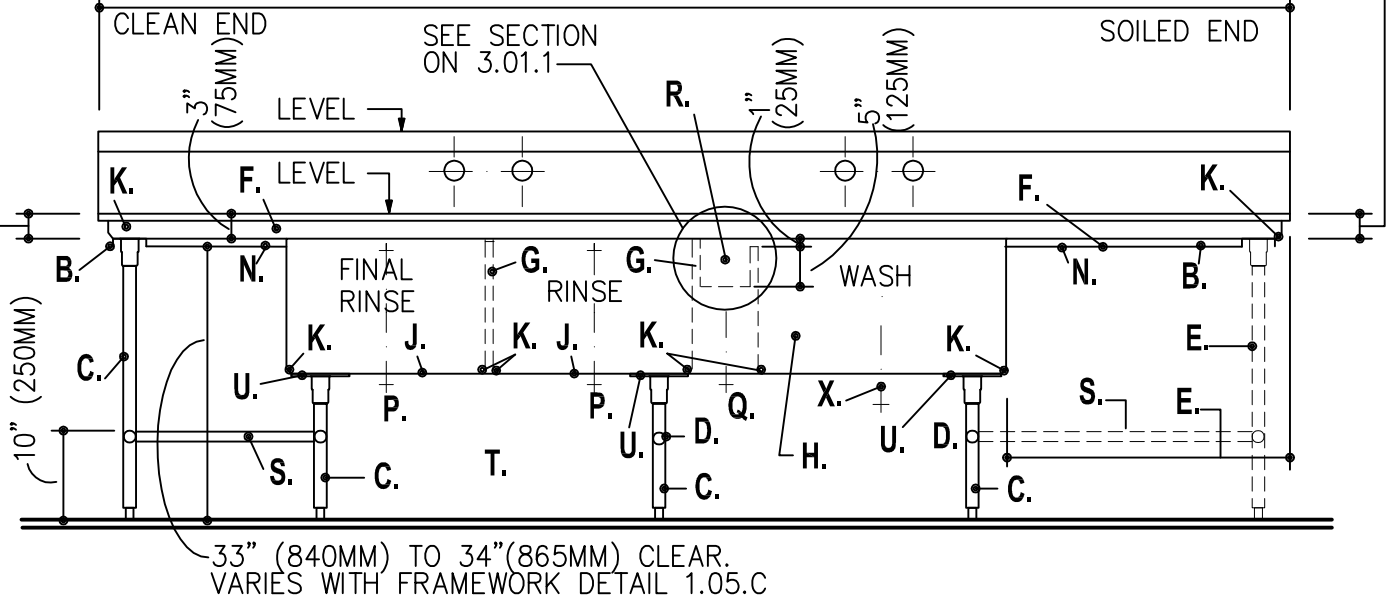
STANDARD DETAIL

**2.30**

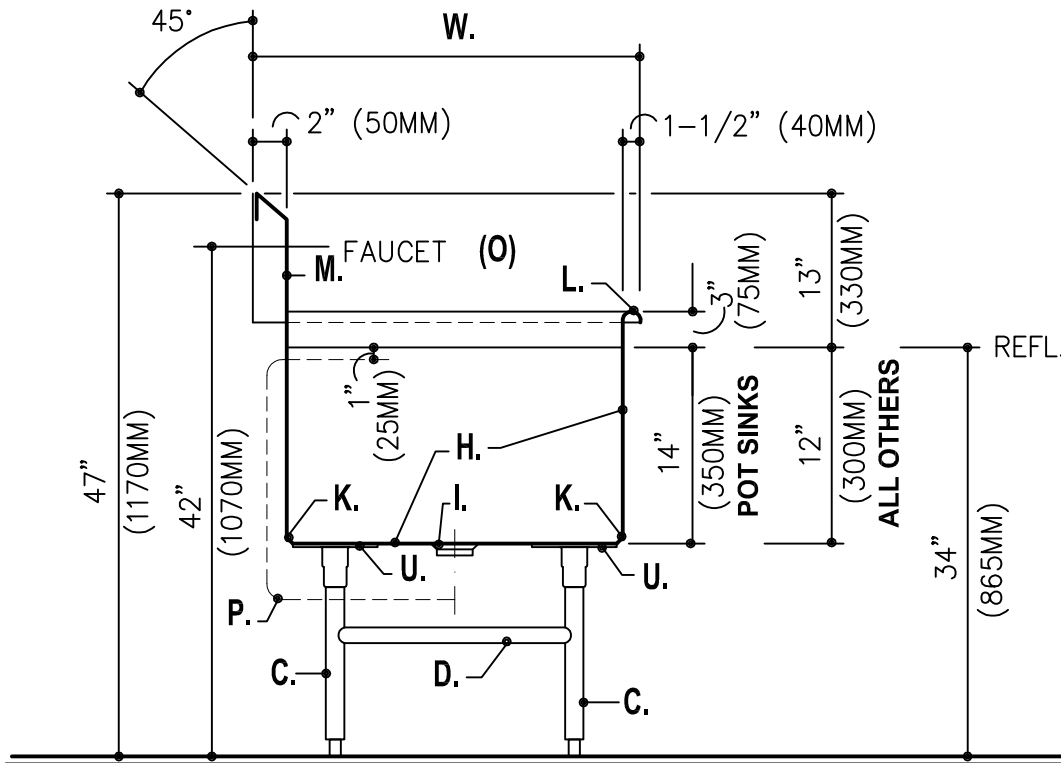
2-1/2" (65MM) MIN. DRAINBOARD  
TO HAVE BUILT-IN PITCH TO THE  
SINKS-SEE NOTE "F"

2-1/2" (65MM) MIN. DRAINBOARD  
TO HAVE BUILT-IN PITCH TO THE  
SINKS-SEE NOTE "F"

AS SPECIFIED



**ELEVATION**



**TYPICAL SECTION**

- A. MATERIAL - 14 GA. (1.8MM) S/S.
- B. STANDARD DETAIL - 1.05B.
- C. STANDARD DETAIL - 1.07
- D. STANDARD DETAIL - 1.10

APPROVED: 05-13-13



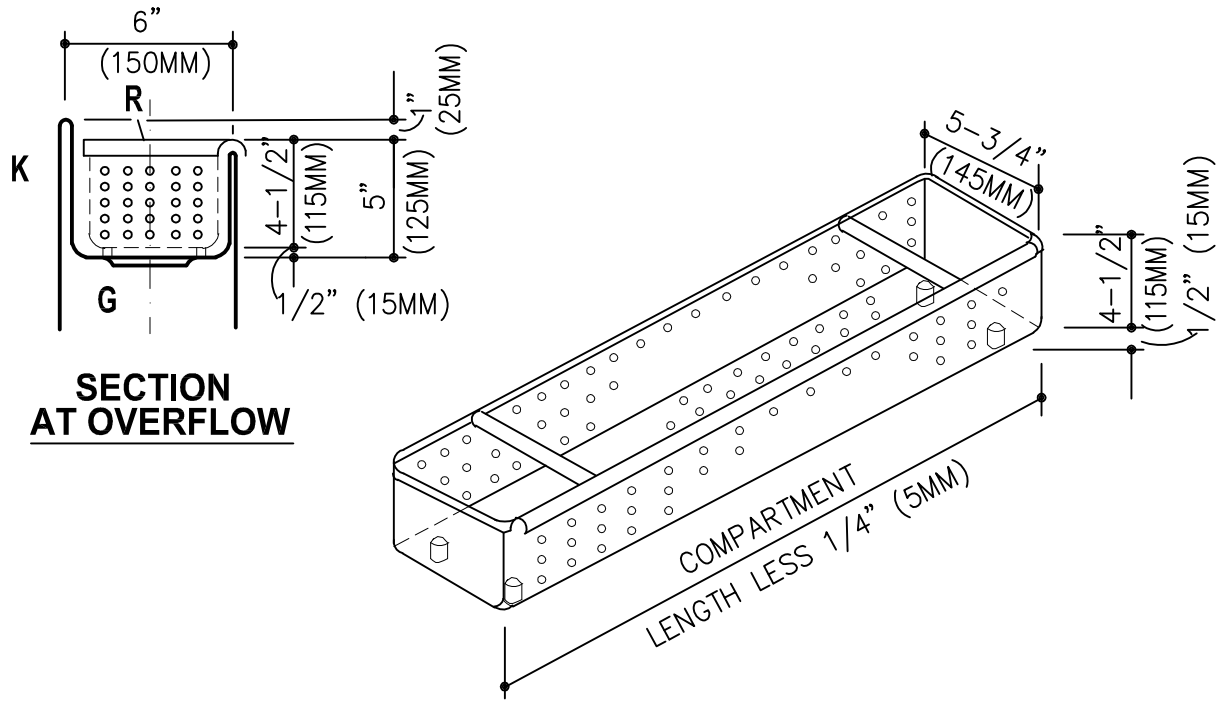
**POT SINKS AND DRAINBOARDS**

NO SCALE

CONTINUED ON 3.01.1  
SEE ALSO: 1.05B, 1.07, 1.10

STANDARD DETAIL

**3.01**



### OVERFLOW COMPARTMENT AND BASKET

- E. DRAINBOARDS UP TO 24" (600MM) IN LENGTH REQUIRE NO LEGS. DRAIN BOARDS OVER 30" (750MM) REQUIRE 1" (25MM) O.D. 16 GA. (1.5MM) S/S LEGS AND CHANNEL FRAMEWORK
- F. DRAINBOARDS SHALL PITCH TO SINK 1/8" (3MM) PER FOOT OF LENGTH TO PROVIDE COMPLETE DRAINING WITHOUT POOLING. THE 3" (75MM) HIGH RAISED ROLLED RIM AT THE SINK SHALL DECREASE IN HEIGHT TOWARD THE OUTER ENDS OF THE DRAINBOARD.
- G. PARTITIONS BETWEEN COMPARTMENTS TO BE DOUBLE WALLED CONSTRUCTION.
- H. 18 GA. S/S SKIRT AND STRAPPING TO CLOSE GAP BETWEEN SINKS.
- I. WASTES SHALL BE SEATED IN DIE STAMPED DEPRESSIONS WITHOUT USE OF SOLDER, RIVETS OR WELDING. INSTALLED COMPONENTS SHALL BE FLUSH WITH SURROUNDING SURFACE.
- J. EACH SINK COMPARTMENT TO BE PITCHED AND CREASED TO WASTE TO ASSURE COMPLETE DRAINING WITHOUT POOLING.
- K. ENTIRE UNIT SHALL BE ALL WELDED COVE CORNERED CONSTRUCTION WITH VERTICAL AND HORIZONTAL AND INTERIOR CORNERS HAVING A 3/4" (20MM) RADIUS.
- L. STANDARD DETAIL- 1.02K EDGE.

APPROVED: 05-13-13

- M. STANDARD DETAIL – 1.04A BACKSPLASH
- N. SOUND DAMPENING TO BE COMPONENT HARDWARE GROUP APPLIED TO TOP OF FRAMING PER DTL. 1.05, NOTE E.
- O. FAUCETS – T&S MODEL B-0290, (12" (304MM) NOZZLE) REMOVABLE MONEL SEATS, 3/4" (20MM) N.P.T. MALE INLETS. [B-0291:18" (457MM) NOZZLE]. (FOR SINKS WITH 15 GALLON CAPACITY (2.0 CUBIC FEET) OR LESS, MODEL B-0231 (12" (304MM) NOZZLE, 1/2" (15MM) MALE INLETS) OR B-0230 (18" (457MM) NOZZLE, 1/2" (15MM) MALE INLETS) ARE ACCEPTABLE.) NOZZLE TO BE SIZED SO THAT DISCHARGE END IS OVER DRAIN. FOR STATES THAT REQUIRE "LOW LEAD" FAUCETS, PROVIDE FAUCETS TO MEET CALIFORNIA AB1953 CERTIFICATION.
- P. WASTES – 2" (50MM) NICKEL PLATED BRONZE ROTARY HANDLE WASTE AND S/S STRAINER PLATE WITH NICKEL PLATED BRASS CONNECTED OVERFLOW, COMPONENT HARDWARE GROUP No. D50-7215
- Q. OVERFLOW WASTE – 1-1/2" (40MM) NICKEL PLATED BRASS OPEN DRAIN. EXTENDED THROUGH SINK BOTTOM USING GASKET AND FLANGE.
- R. OVERFLOW BASKET – 16 GA. (1.5MM) PERFORATED, 1/4" (6MM) HOLES, 3/4" (19MM) O.C. S/S COVED CORNERED WITH HEMMED EDGES, 1/2" (15MM) SOLID ROD FEET AND HANDLES.
- S. REAR CROSSBRACING ONLY.
- T. OMIT FRONT AND REAR LENGTHWISE CROSSBRACING UNDER SINKS.
- U. 14 GA. (1.8MM) S/S 6" X 6" (150MM X 150MM) SQUARE SUPPORT PLATE WELDED TO UNDERSIDE OF SINKS.
- W. WIDTH AS SPECIFIED.
- X. WASTE – 2" (50MM) NICKLE PLATED BRASS ROTARY HANDLE WASTE AND S/S STRAINER PLATE. COMPONENT HARDWARE No. D50-7200 WITHOUT OVERFLOW.

APPROVED: 05-13-13



**SINKS AND DRAINBOARDS**

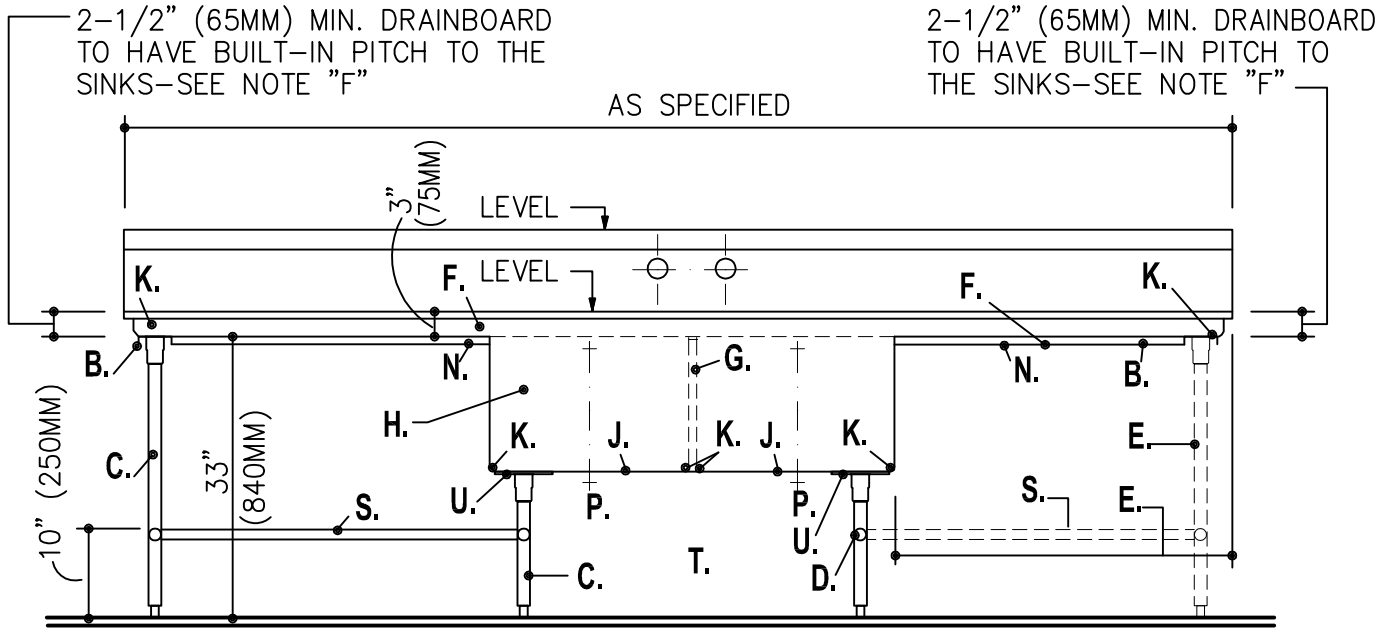
NO SCALE

SEE ALSO: 1.04A, 3.01, 3.01.1

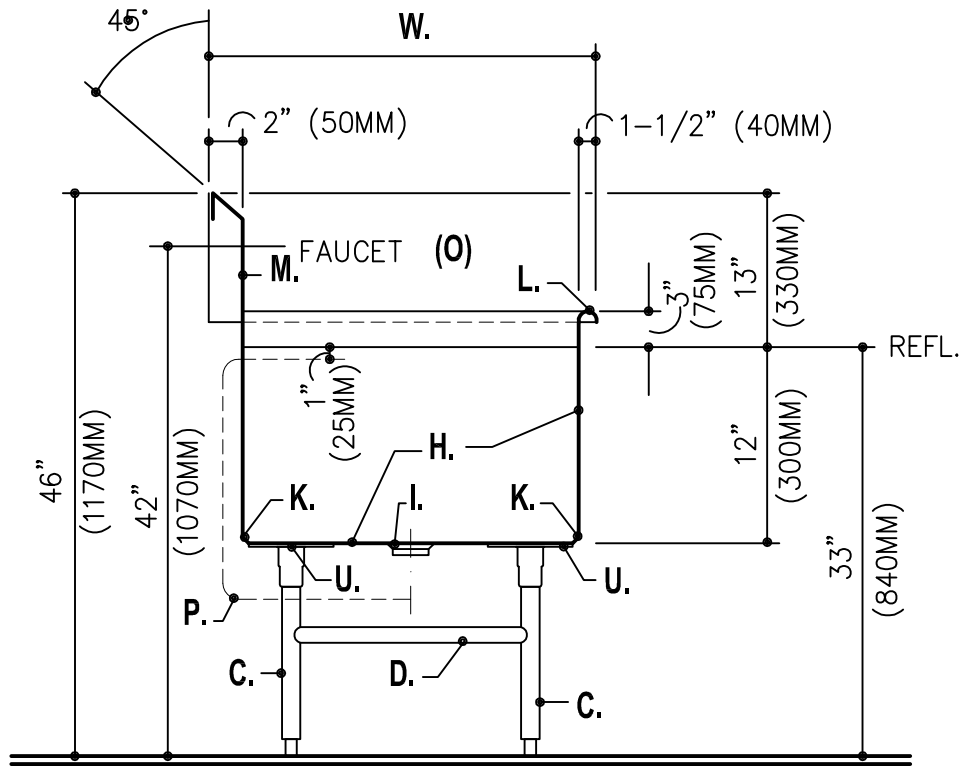
STANDARD DETAIL

**3.01.2**





**ELEVATION**



**TYPICAL SECTION**

- A. MATERIAL - 14 GA. (1.8MM) S/S.
- B. STANDARD DETAIL - 1.05B.

- C. STANDARD DETAIL - 1.07
- D. STANDARD DETAIL - 1.10

APPROVED: 05-13-13



**WORK TABLE WITH SINK AND DRAINBOARDS**

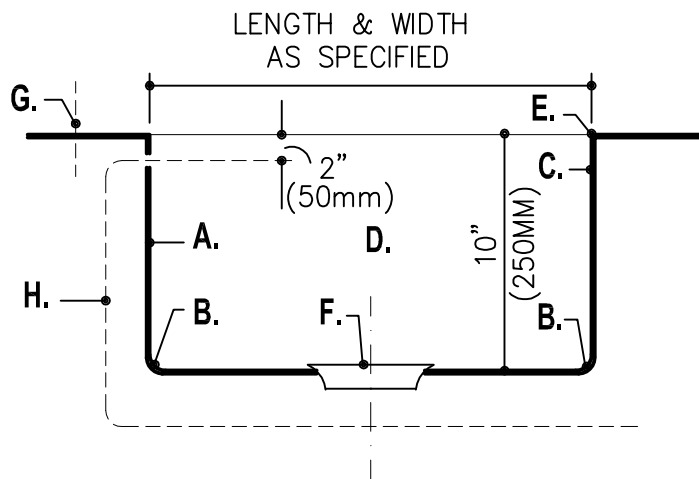
NO SCALE

CONTINUED ON 3.02.1  
SEE ALSO: 1.05B, 1.07, 1.10

STANDARD DETAIL

**3.02**

- E.** DRAINBOARDS UP TO 24" (600MM) IN LENGTH REQUIRE NO LEGS. DRAIN BOARDS OVER 30" (750MM) REQUIRE 1" (25MM) O.D. 16 GA. (1.5MM) S/S LEGS AND CHANNEL FRAMEWORK
- F.** DRAINBOARDS SHALL PITCH TO SINK 1/8" (3MM) PER FOOT OF LENGTH TO PROVIDE COMPLETE DRAINING WITHOUT POOLING. THE 3" (75MM) HIGH RAISED ROLLED RIM AT THE SINK SHALL DECREASE IN HEIGHT TOWARD THE OUTER ENDS OF THE DRAINBOARD.
- G.** PARTITIONS BETWEEN COMPARTMENTS TO BE DOUBLE WALLED CONSTRUCTION.
- H.** 18 GA. S/S SKIRT AND STRAPPING TO CLOSE GAP BETWEEN AND UNDER SINKS.
- I.** WASTES SHALL BE SEATED IN DIE STAMPED DEPRESSIONS WITHOUT USE OF SOLDER, RIVETS OR WELDING. INSTALLED COMPONENTS SHALL BE FLUSH WITH SURROUNDING SURFACE.
- J.** EACH SINK COMPARTMENT TO BE PITCHED AND CREASED TO WASTE TO ASSURE COMPLETE DRAINING WITHOUT POOLING.
- K.** ENTIRE UNIT SHALL BE ALL WELDED COVE CORNERED CONSTRUCTION WITH VERTICAL AND HORIZONTAL AND INTERIOR CORNERS HAVING A 3/4" (20MM) RADIUS.
- L.** STANDARD DETAIL- 1.02K EDGE.
- M.** STANDARD DETAIL - 1.04A BACKSPLASH
- N.** SOUND DAMPENING TO BE COMPONENT HARDWARE GROUP APPLIED TO TOP OF FRAMING PER DTL. 1.05, NOTE E.
- O.** FAUCETS - T&S MODEL B-0290, (12" (304MM) NOZZLE) REMOVABLE MONEL SEATS, 3/4" (20MM) N.P.T. MALE INLETS. [B-0291:18" (457MM) NOZZLE]. FOR SINKS WITH 15 GALLON CAPACITY OR LESS, MODEL B-0231 (12" (304MM) NOZZLE, 1/2" (15MM) MALE INLETS) OR B-0230 (18" (457MM) NOZZLE, 1/2" (15MM) MALE INLETS) ARE ACCEPTABLE.  
NOZZLE TO BE SIZED SO THAT DISCHARGE END IS OVER DRAIN.  
FOR STATES THAT REQUIRE "LOW LEAD" FAUCETS, PROVIDE FAUCETS TO MEET CALIFORNIA AB1953 CERTIFICATION.
- P.** WASTES - 2" (50MM) NICKEL PLATED BRONZE ROTARY HANDLE WASTE AND S/S STRAINER PLATE WITH NICKEL PLATED BRASS CONNECTED OVERFLOW, COMPONENT HARDWARE GROUP No. D50-7215
- Q.** OVERFLOW WASTE - 1-1/2" (40MM) NICKEL PLATED BRASS OPEN DRAIN. EXTENDED THROUGH SINK BOTTOM USING GASKET AND FLANGE.
- S.** REAR CROSSBRACING ONLY.
- T.** OMIT FRONT AND REAR LENGTHWISE CROSSBRACING UNDER SINKS.
- U.** 14 GA. (1.8MM) S/S 6" X 6" (150MM X 150MM) SQUARE SUPPORT PLATE WELDED TO UNDERSIDE OF SINKS.
- W.** WIDTH AS SPECIFIED.
- X.** WASTE - 2" (50MM) NICKEL PLATED BRASS ROTARY HANDLE WASTE AND S/S STRAINER PLATE. COMPONENT HARDWARE No. D50-7200 WITHOUT OVERFLOW.



**TYPICAL SECTION**

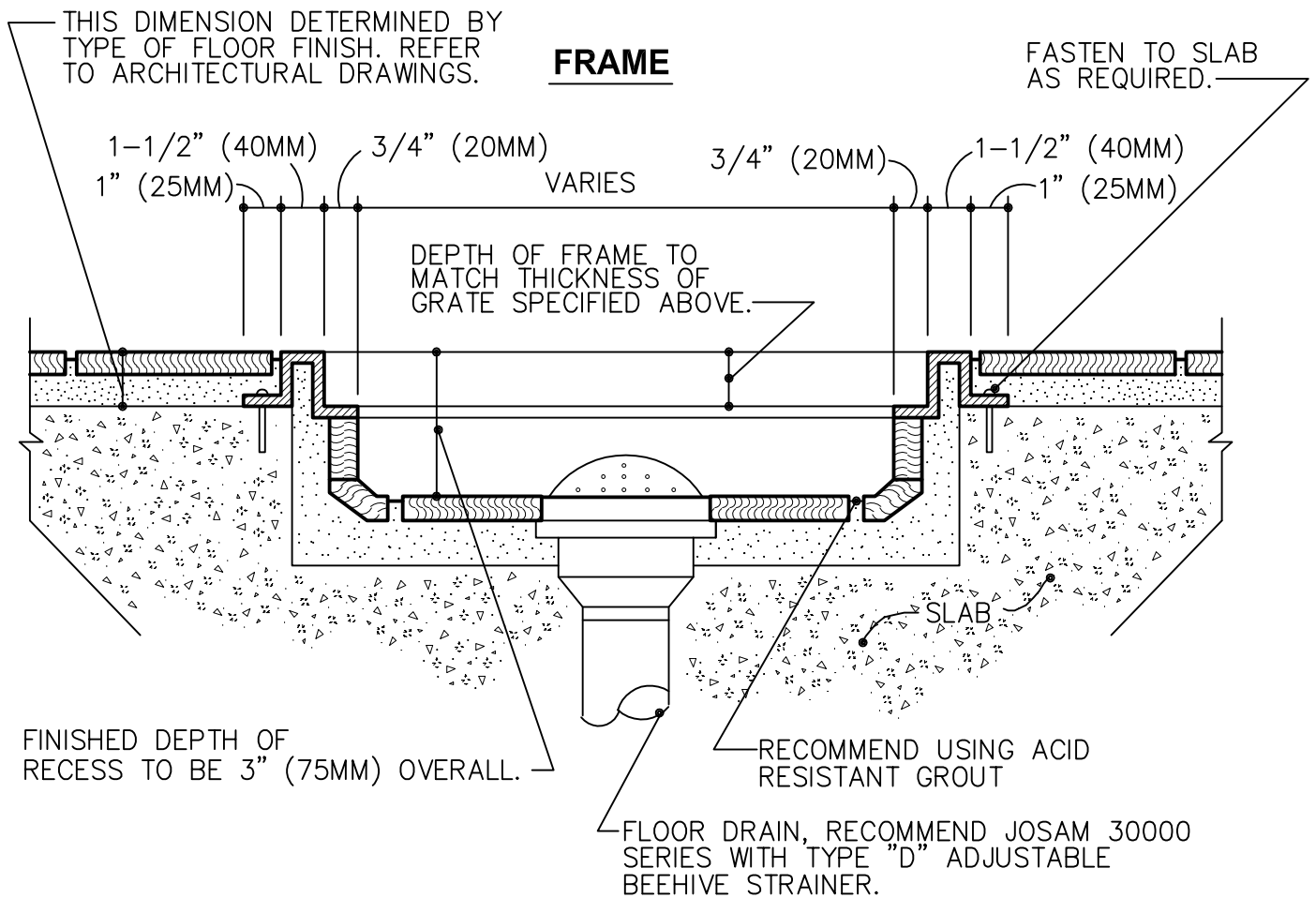
- A.** MATERIAL – 14 GA. (1.8MM) S/S
- B.** ENTIRE UNIT SHALL BE ALL WELDED COVE CORNERED CONSTRUCTION WITH VERTICAL AND HORIZONTAL AND INTERIOR CORNERS HAVING A 3/4” (20mm) RADIUS, FULLY WELD SINK TO TOP WITHOUT OVERLAPPING JOINTS.
- C.** TWO SIDES AND BOTTOM SHALL BE ONE CONTINUOUS PIECE WITH ENDS WELDED INTEGRAL, WITHOUT OVERLAPPING JOINTS.
- D.** PARTITIONS BETWEEN COMPARTMENTS TO BE DOUBLE WALLED CONSTRUCTION.
- E.** FULLY WELD SINK TO TOP WITHOUT OVERLAPPING JOINTS.
- F.** WASTES SHALL BE SEATED IN DIE STAMPED DEPRESSIONS WITHOUT USE OF SOLDER, RIVETS OR WELDING. INSTALLED COMPONENTS SHALL BE FLUSH WITH SURROUNDING SURFACE.
- G.** FAUCETS – T&S MODEL B-0221-CC (12” (304mm) NOZZLE) WITH B-0199-01 (LOW FLOW) (SWIVEL) AERATOR, REMOVABLE MONEL SEATS AND 1/2” (15mm) I.P.S. MALE INLETS. [B-0222-CC (1/2” MALE): 6” (152mm) NOZZLE; B-0220-CC (1/2” MALE): 18” (457mm) NOZZLE]. NOZZLE TO BE SIZED SO THAT DISCHARGE END IS OVER DRAIN. FOR STATES THAT REQUIRE “LOW LEAD” FAUCETS, PROVIDE FAUCETS TO MEET CALIFORNIA AB1953 CERTIFICATION.
- H.** WASTES – 2” (50mm) NICKEL PLATED BRONZE ROTARY HANDLE WASTE AND S/S STRAINER PLATE WITH CHROME PLATED BRASS CONNECTED OVERFLOW, COMPONENT HARDWARE GROUP #D50-7215.

APPROVED: 05-13-13

FLOOR GRATE IS TO BE SUBWAY MODEL # SGC STAINLESS STEEL GRATING AS MANUFACTURED BY IMC/TEDDY FOOD SERVICE CORP. GRATE TO FIT FRAME BELOW. MAXIMUM SIZE OF INDIVIDUAL GRATE SECTION TO BE THE LESSER OF 3'-0" (900MM) OR 30LBS (14kg).

### FLOOR GRATE

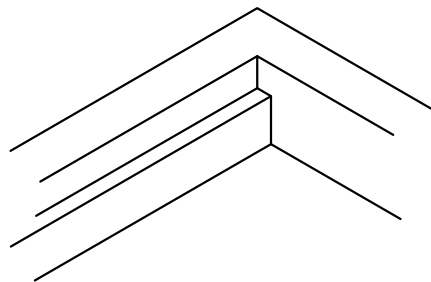
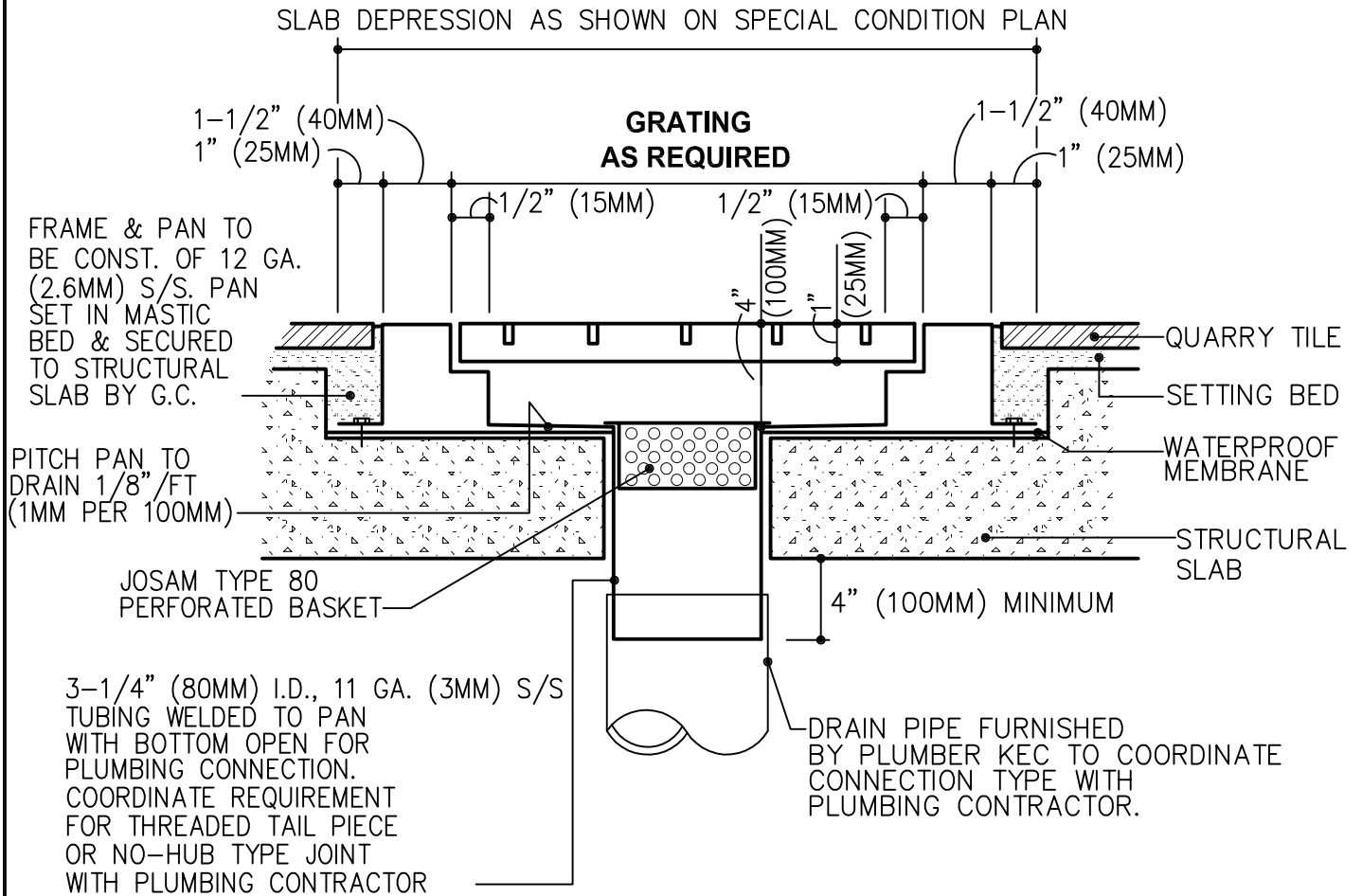
NOTE: FRAME IS TO BE CONSTRUCTED OF 12 GA. (2.6MM) S/S STEEL, FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR. REFER TO SPECIAL CONDITIONS DRAWINGS OR SPECIFICATIONS FOR LENGTH AND WIDTH OF FRAME.



**KITCHEN EQUIPMENT CONTRACTOR TO VERIFY ALL DIMENSIONS.**

APPROVED: 11-01-02

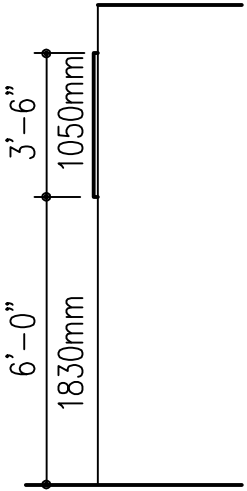
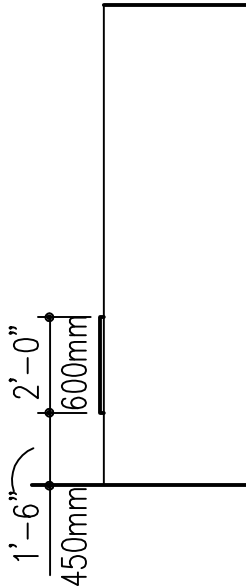
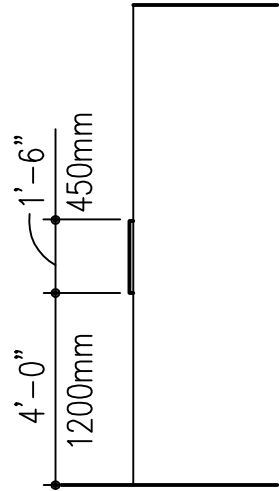
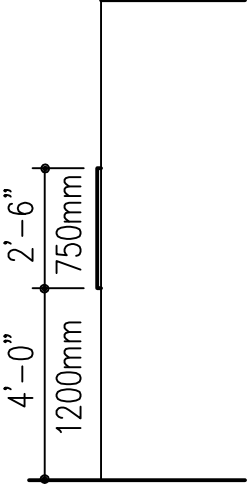
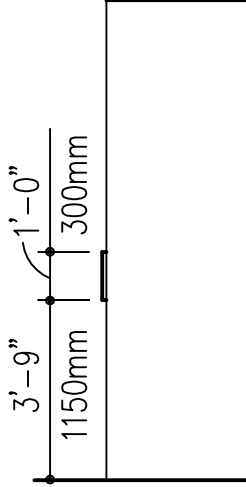
FLOOR TO BE IMC/TEDDY FOOD SERVICE  
 CORP. SUBWAY GRATING, MODEL #SG.  
 WELDED STAINLESS STEEL GRATING.  
 SIZE TO FIT FRAME. MAXIMUM SIZE  
 TO BE LESSER OF 3'-0" (900MM) OR 30 LBS.



**VIEW OF PAN AT CORNER**

APPROVED: 11-01-02

APPROVED: 11-01-02

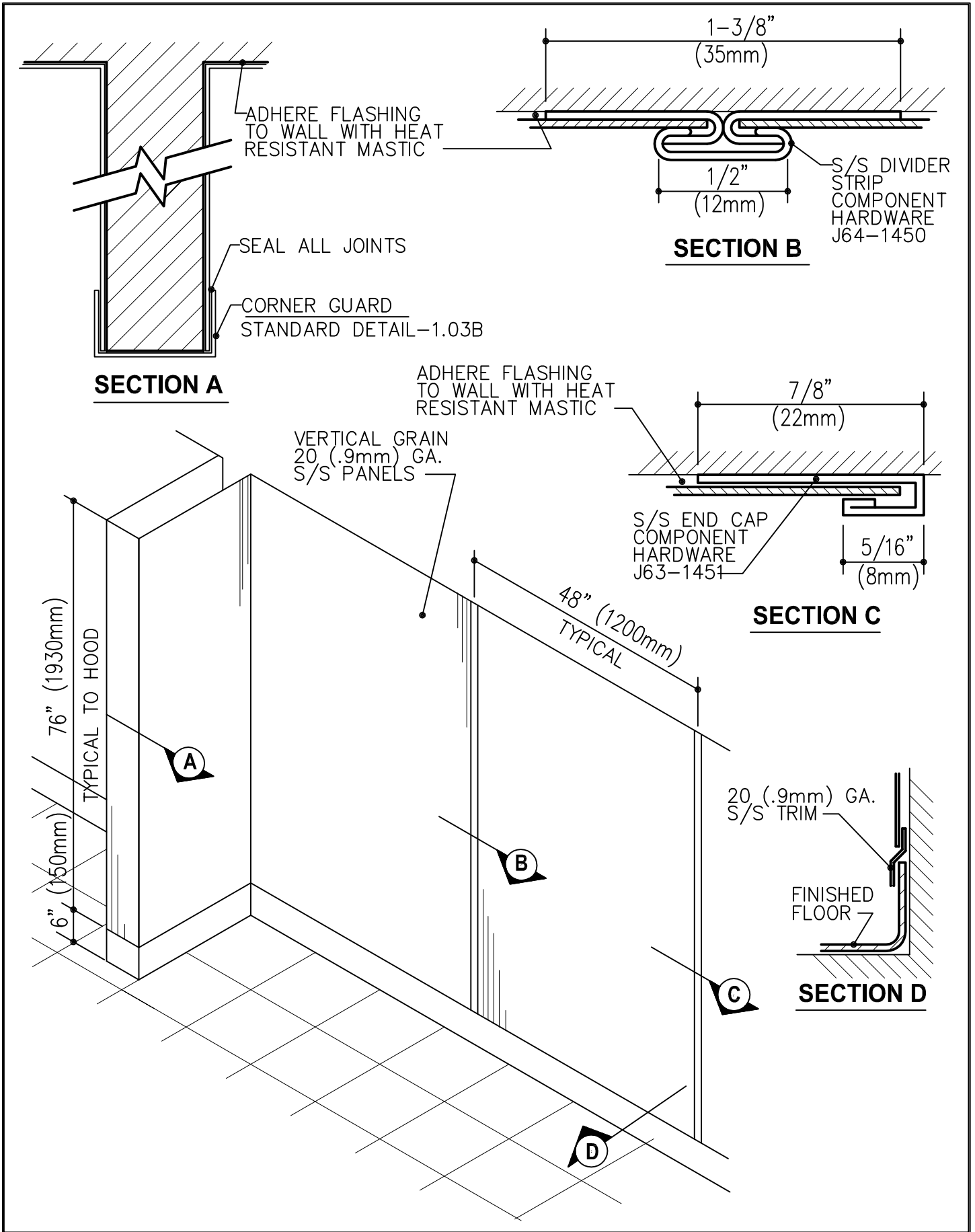
		
<p><b>A</b> EXHAUST HOOD (VENTILATOR)</p>	<p><b>B</b> HAND SINK &amp; BELOW COUNTER WATER FILTER</p>	<p><b>C</b> SINGLE OVERSHELF</p>
		<p>WALLBACKING TO BE 16 GA.(1.5mm) GALVANIZED METAL OR 3/4" (20mm) PLYWOOD, SECURELY ATTACHED TO WALL FRAMING.</p> <p>WALLBACKING LENGTHS SHOWN ARE MINIMUM, ALWAYS EXTEND WALLBACKING TO NEXT STUD OVER IN EACH DIRECTION.</p> <p>ALL WORK SHOWN TO BE BY GENERAL CONTRACTOR UNLESS NOTED OTHERWISE.</p>
<p><b>D</b> DOUBLE OVERSHELF / ABOVE COUNTER WATER FILTER</p>	<p><b>E</b> PRE-RINSE FAUCET</p>	



**WALL BACKING DETAILS**  
NO SCALE

STANDARD DETAIL  
**7.07**

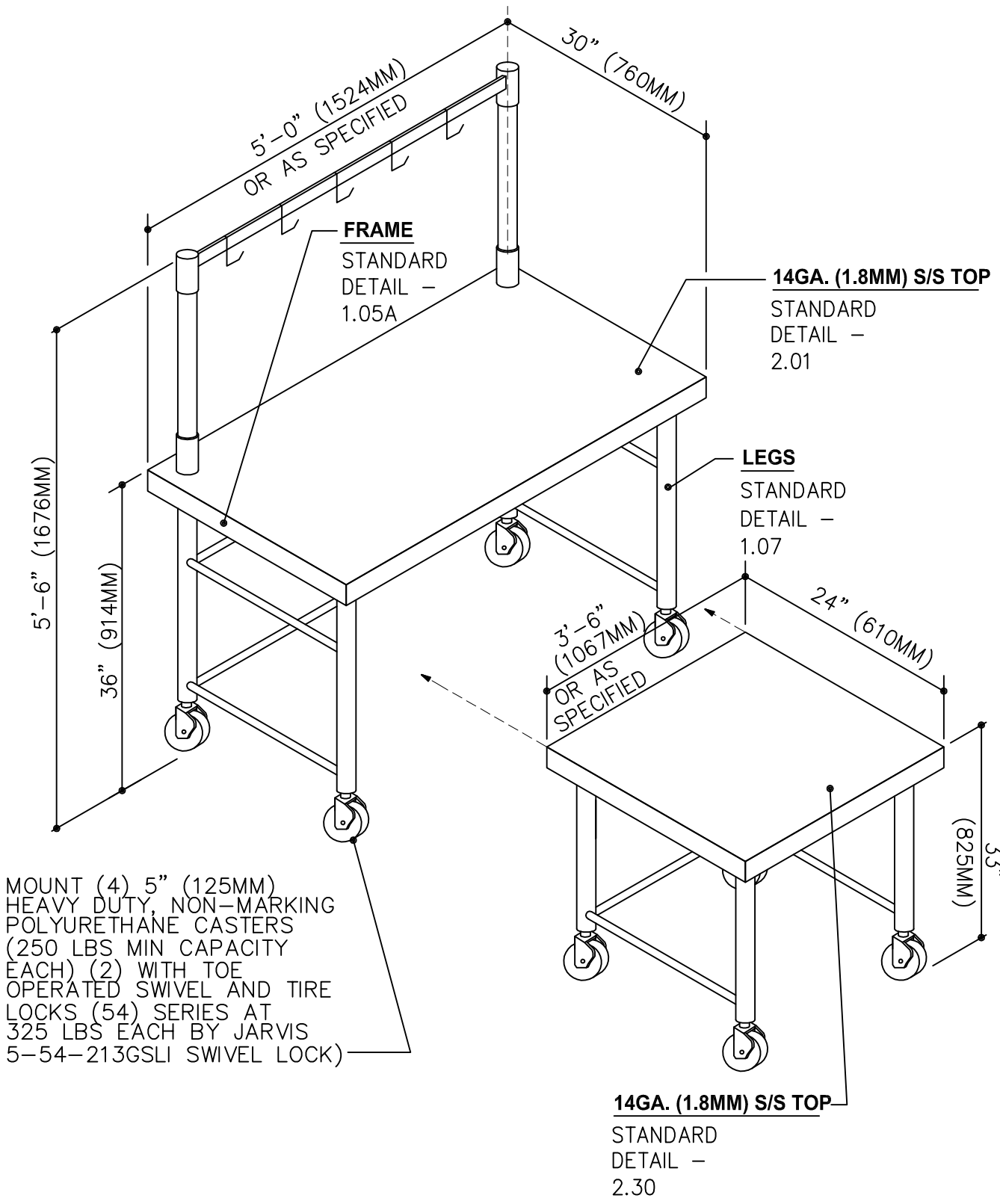
APPROVED: 05-13-13



**STAINLESS STEEL WALL SHEATHING**  
 NO SCALE  
 SEE ALSO: 1.03B

STANDARD DETAIL  
**8.02**

APPROVED: 05-13-13



MOUNT (4) 5" (125MM)  
 HEAVY DUTY, NON-MARKING  
 POLYURETHANE CASTERS  
 (250 LBS MIN CAPACITY  
 EACH) (2) WITH TOE  
 OPERATED SWIVEL AND TIRE  
 LOCKS (54) SERIES AT  
 325 LBS EACH BY JARVIS  
 5-54-213GSLI SWIVEL LOCK)

**DIMENSIONS & HEIGHT AS SPECIFIED**



**MIXER PARTS TABLE W/ MOBILE TABLE**  
 NO SCALE SEE ALSO 1.05A, 1.07, 2.01, 2.30

STANDARD DETAIL  
**2.30.1**



## SECTION 11 6623 - GYMNASIUM EQUIPMENT

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Basketball backboards, goals, and support framing.
- B. Wall mounted protection pads.

#### 1.02 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018b.
- B. ASTM F2440 - Standard Specification for Indoor Wall/Feature Padding; 2011.
- C. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015, with Errata (2016).
- D. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- E. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth; 2015.

#### 1.03 ADMINISTRATIVE REQUIREMENTS

- A. Large Components: Ensure that large components can be moved into final position without damage to other construction.
- B. Electrically Operated Equipment: Coordinate location and electrical characteristics of service connection.

#### 1.04 SUBMITTALS

- A. Product Data: Provide manufacturer's data showing configuration, sizes, materials, finishes, hardware, and accessories; include:
  - 1. Electrical characteristics and connection locations.
  - 2. Fire rating certifications.
  - 3. Structural steel welder certifications.
  - 4. Manufacturer's installation instructions.
- B. Erection Drawings: Detailed dimensional requirements for proper location of equipment.
- C. Samples: Submit samples of wall pad coverings in manufacturer's available range of colors.
- D. Operating and maintenance data, for each operating equipment item.
- E. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to project site in manufacturer's original packaging with factory original labels attached.

- B. Store products indoors and elevated above floor; prevent warping, twisting, or sagging.
- C. Store products in accordance with manufacturer's instructions; protect from extremes of weather, temperature, moisture, and other damage.

#### 1.06 WARRANTY

- A. Provide ten year year manufacturer warranty.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Gymnasium Equipment:
  - 1. Draper, Inc: [www.draperinc.com](http://www.draperinc.com).
  - 2. Performance Sports Systems: [www.perfsports.com](http://www.perfsports.com).
  - 3. Porter Athletic Equipment Company: [www.porterathletic.com](http://www.porterathletic.com).
  - 4. Approved equal.

#### 2.02 GENERAL REQUIREMENTS

- A. See drawings for sizes and locations, unless noted otherwise.
- B. Where mounting dimensions or sizes are not indicated, comply with applicable requirements of the following:
  - 1. National Federation of State High School Associations (NFHS) sports rules.
- C. Provide mounting plates, brackets, and anchors of sufficient size and strength to securely attach equipment to building structure; comply with requirements of Contract Documents.
- D. Hardware: Heavy duty steel hardware, as recommended by manufacturer.
- E. Electrical Wiring and Components: Comply with NFPA 70; provide UL-listed equipment.
- F. Structural Steel Fabrications: Welded in accordance with AWS D1.1/D1.1M, using certified welders.

#### 2.03 BASKETBALL

- A. Basketball System: Backstop assembly, backboard, and goal.
- B. Wall-Mounted Backstop Assemblies: Wall-mounted steel frame assembly capable of mounting both rectangular and fan-shaped backboards.
  - 1. Framing: Stationary framing.
  - 2. Height Adjuster: Raises or lowers assembly by 2 feet to adjust goal height.
    - a. Height Control System: Electric hoist that adjusts backstop with 115 volt actuator, and integral limit switches that provide automatic shut-off in both positions.
  - 3. Framing Color: Manufacturer's standard.
- C. Backboards: Tempered glass, rectangular shaped.
  - 1. Frame: Brushed aluminum edge, steel mounting.
  - 2. Dimensions: 42 inches high by 72 inches wide
  - 3. Thickness: 1/2 inches.
  - 4. Markings: Integrally manufactured.

5. Provide safety padding for bottom edge of backboard.
6. Provide mounting kit.
7. Color: Manufacturer's standard.

D. Goals: Steel rim, mounted to backboard, with attached nylon anti-whip net; complete with mounting hardware.

1. Net Attachment Device: Tube-tie.
2. Breakaway mechanism, 230 lbs.
3. Provide safety pad for goal mounting.
4. Finish: Powder coat orange.

## 2.04 WALL PADDING

A. Wall Padding: Foam filling bonded to backing board, wrapped in covering; each panel fabricated in one piece.

1. Surface Burning Characteristics: Flame spread index (FSI) of 25 or less, smoke developed index (SDI) of 450 or less, Class A, when tested in accordance with ASTM E84 as a complete panel.
2. Flammability: Comply with NFPA 286.
3. Impact: Comply with ASTM F2440.
4. Covering: Vinyl-coated polyester fabric, mildew and rot resistant; stapled to back of board.
  - a. Color: As selected from manufacturer's standard range.
  - b. Texture: Embossed leather-look.
  - c. Fabric Weight: 14 oz/sq yd.
5. Foam Indention Force Deflection (IFD) at 25 percent: 75 pounds minimum.
6. Foam Thickness: 2 inches.
7. Backing Board: Oriented strand board.
8. Panel Dimensions: 24 inches wide by 72 inches long, including nailing margins.
9. Nailing Margins: 1 inch wide, covered by fabric covering.
10. Mounting: Removable; Z-clips fixed to wall and to padding.

B. Specially Shaped Padding: Same construction as standard padding; custom fabricate to fit irregularly shaped members, areas, and protrusions in gymnasium as indicated; provide padding for:

1. Wall corners.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Take field measurements to ensure proper fitting of work. If taking field measurements before fabrication will delay work, allow for adjustments within recommended tolerances.
- B. Inspect areas and conditions before installation, and notify Architect in writing of unsatisfactory or detrimental conditions.
- C. Do not proceed with this work until conditions have been corrected; commencing installation constitutes acceptance of work site conditions.
- D. Verify that electrical services are correctly located and have proper characteristics.

### 3.02 INSTALLATION

- A. Install in accordance with Contract Documents and manufacturer's instructions.

- B. Install equipment rigid, straight, plumb, and level.
- C. Secure equipment with manufacturer's recommended anchoring devices.
- D. Install wall padding securely, with edges tight to wall and without wrinkles in fabric covering.
- E. Separate dissimilar metals to prevent electrolytic corrosion.

3.03 ADJUSTING

- A. Verify proper placement of equipment.
- B. Verify proper placement of equipment anchors and sleeves, and use actual movable equipment to be anchored if available.
- C. Adjust operating equipment for proper operation; remove and replace equipment causing noise or vibration; lubricate equipment as recommended by manufacturer.

3.04 CLEANING

- A. Remove masking or protective covering from finished surfaces.
- B. Clean equipment in accordance with manufacturer's recommendations.

3.05 PROTECTION

- A. Protect installed products until Date of Substantial Completion.
- B. Replace damaged products before Date of Substantial Completion.

END OF SECTION