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END OF SECTION



## **PART 1 – GENERAL**

### **1.01 EXTENT OF SECTIONS**

- A. This Section includes the following types of stage curtains, if applicable: front-setting curtains including valance, front curtain, and tormentors; intermediate-setting curtains including valance, intermediate curtains, and intermediate legs; cyclorama-setting curtains including borders, legs, travelers, and rear curtain; scrim; sky drop.
- B. The intent of the PCSB STANDARDS is for the DESIGN PROFESSIONAL (DP) to comply with the minimum general project requirements and the specific project specifications shall be generated and provided by the DP.

## **PART 2 – DESIGN**

### **2.01 MATERIALS**

- A. All Curtains shall be certified to be flame retardant according to requirements of NFPA 701. Require labels to each curtain indicating whether curtain is permanently and inherently flame retardant (IFR), or whether it shall require retreatment after dry cleaning.
- B. Woven Cotton Velour: Napped fabric of 100 percent cotton; 54-inch minimum width; not less than 40 backing ends per inch, 40 pile ends per inch, and 32 picks per inch; 640 pile tufts per square inch; and other characteristics as follows:
- C. MEDIUM WEIGHT: Fabric weighing not less than 20 oz. per linear yard before flame proofing, with pile height approximately 105 mils.
- D. SHARKTOOTH SCRIM: Open-weave, light-weight gauze fabric of 100 percent cotton weighing not less than 7 oz. per linear yard; 30-foot minimum width. Color: Black or blue.
- E. MUSLIN: Sheer, plain-woven fabric of 100 percent uncombed cotton weighing not less than 6 oz. per linear yard; 100-inch minimum width. Color: Grey or blue.
- F. STEEL PIPE: ASTM 53 Grade-A black, standard weight (Schedule 40), 1½-inch nominal diameter.
- G. Support clamps and anchors shall be sheet steel and have an ASTM A 526 galvanized finish with air-craft cable support.
- H. HEAD CHANNEL: The head channel shall be chemically-treated steel in manufacturer's standard gages; galvanized after fabrication according to ASTM A 153, Class B.
  - 1. Support Chain: ASTM A 413, ¼-inch size.
  - 2. Inserts, Bolts, and Fasteners: Manufacturer's standard units.
  - 3. It shall be "U" shaped with rolled edges at the top.

### **2.02 DESIGN GUIDELINES**



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- A. Specify companies experienced in producing stage curtains similar to those indicated for a Project that have a record of successful in-service performance, and with sufficient production capacity to produce required units without causing a delay in the Work.
- B. Front setting: Intermediate setting and cyclorama settings minimum requirement (can use heavier weight fabrics).
- D. Specify not less than 50 percent additional fullness for curtains with vertical seams. Do not use fabric cuts less than half width. Specify fabricate velour curtains with the nap down. Specify vertical hem, leading edge turn back, top and bottom hem and pleats. Tracks material requirements shall be a minimum of 14 gauge steel and require galvanized finish.
- E. Specify curtain installer to warranty the entire curtain system including fabric, and supports unconditionally for a period of two (2) years following the date of Substantial Completion. After this period all other Manufacturer Warranties shall be in effect. Require installer to notify the Owner for a system inspection at 6-month intervals during Warranty Period.
- F. DP to specify steel pipes, supports, trim, cables, fasteners clamps battens and anchors for system.
- H. In CCTV Studio, fabricate battens from a 5-ft. x 5-ft. painted steel pipe grid with overall size 15-ft. x 20-ft.

**PART 3 – EXECUTION**

**3.01 GENERAL INSTALLATION**

- A. Install materials according to manufacturer's printed instructions and recommendations.

**3.02 TRACK INSTALLATION**

- A. Wall Mounted Tracks: Install tracks by suspending from manufacturer's special bracket clamps securely mounted to wall construction at recommended spacing.
- B. BATTEN-HUNG TRACKS: Install track by suspending from pipe batten with manufacturer's special pipe clamps at recommended spacing.
- C. HEAVY-DUTY TRACK: Do not exceed 6 feet between supports.
- D. MEDIUM-DUTY TRACK: Do not exceed 4 feet between supports.
- E. CURVED/WALK-ALONG TRACK: Do not exceed 4 feet between supports, and provide additional supports at curves and splices.
- F. Install track for center-parting curtains with not less than a 2 foot overlap of track sections at center, supported by special lap clamps.



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**3.03 CURTAIN INSTALLATION**

- A. Track-Hung: Secure curtains to track carriers with track manufacturer's special heavy duty S hooks for snap hooks.
- B. Batten Hung: Secure curtains to pipe battens with minimum 5/8 inch wide by 36 inch long braided soft cotton tie lines.

END OF SECTION



**DIVISION 11**

**SECTION 11400 — FOOD SERVICE EQUIPMENT**

**PART 1 – GENERAL**

**1.01 EXTENT OF SECTION**

- A. This section covers Food Service equipment and kitchen component requirements.
- B. The intent of the PCSB STANDARDS is for the DESIGN PROFESSIONAL (DP) to comply with the minimum general project requirements and the specific project specifications shall be generated and provided by the DP.

**1.02 REQUIREMENTS**

- A. A complete list of cafeteria equipment shall be provided in the DP's Specifications. *All* equipment shall be approved by the PCSB Nutrition Supervisor.
- B. Products specified herein by manufacturer and model number form the basis of design and quality standards. Any desired substitutions or alternate products shall be submitted to the DP no later than two weeks prior to bid receipt date. If approved, the DP shall notify bidders of such approved substitutes by written addenda. Absence of such approval shall be interpreted to means products shall be provided as specified.
- C. All electrical equipment located in the following areas shall be protected by a ground fault circuit: serving, prep area, scullery area and culinary arts.
- D. Refer to manufacturer's data sheets, and drawings for details and dimensions and service connection requirements/ responsibilities.
- E. Provide 48-inches high (height and location to be verified and coordinated with kitchen equipment) masonry knee wall with quarry tile finish.
- F. DP to coordinate all floor slopes to drains, as required in Design and Construction Documents, see also SECTION 15400.
- G. Provide a door bell for exterior delivery door to Kitchen Managers office.
- H. Provide fan air circulation throughout Food Service equipment areas.

**1.03 GENERAL GAS REQUIREMENTS**

- A. Gas cooking equipment shall supply gas regulators with equipment.
- B. Test all equipment for proper operation. Demonstrate and instruct operation for PROJECT COORDINATOR/ PCSB Representative.
- C. Thoroughly clean all equipment, leave ready for PCSB kitchen personnel use.
- D. Furnish two bound sets of operational and maintenance data upon completion.



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- E. All gas supplied units shall be provided with flexible connect restraining devices.
- F. Gas lines and gas line settlement pipes shall be located as not to create an obstruction to food service workers.
- G. All exposed gas lines shall be painted with high visibility yellow paint and labeled.
- H. Manual reset for gas solenoid valves shall be readily accessible (not above ceiling). Refer to DIVISION 15.

**PART 2 – EQUIPMENT**

**2.01 K-1 DOUBLE DECK OVEN**, floor mounts on legs, AGA certified, CGA & NSF listed.

A. SERVICES

- 1. Electrical - 115 volts/60Hz/1Phase, 1/3 HP, 6 Amps
- 2. Gas - 110,000 (55,000 ea. section) BTU/Hr/ (verify with utility company natural or propane gas)
- 3. Vent - Ovens placed under exhaust hood.
- 4. Placement 10" off knee wall.

B. APPROVED MANUFACTURER AND MODEL

- 1. Blodgett Dual-Flow Gas/ DFG-100 Double.

2. FEATURES AND OPTIONS provided:

- 1. Electronic pilot spark ignition control.
- 2. Gas pressure regulator and manual cutoff.
- 3. #430 Stainless steel front, #3 heat resistant black enamel top, sides and back.
- 4. Louvered back panel for each oven.
- 5. Front control panel with 100% electrical disconnect.
- 6. Porcelain enamel steel interior 29"W x 20"H x 24"D.
- 7. Insulated enclosure.
- 8. Chrome plated steel wire racks, 6 per oven.
- 9. Hinged doors with dual pane thermal windows.
- 10. Infinite setting solid state thermostat (200° to 500° F.)
- 11. 60 Minute timer with buzzer.
- 12. Two 50 watt commercial bake oven lamps.
- 13. Stainless steel adjustable legs, minimum 6" ht.
- 14. Two speed motor.
- 15. Separate service connections for each oven.

**2.02 K-2 RANGE/ OVEN** GAS: A Commercial Range With Oven Below, floor mount on legs. AGA certified and NSF listed.

A. SERVICES

- 1. Electrical - 115 volts/60Hz/1Phase, 1/4 HP



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2. Gas - 130,000 (20,000 per burner + 50,000 oven) BTU/Hr/ (verify with utility company natural or propane gas).
3. Vent - Range placed under exhaust hood.
4. Placement shall be 10-inches off knee wall

**B. APPROVED MANUFACTURER AND MODEL (Not currently utilized)**

1. Vulcan Hart GH72/ Garland

**D. FEATURES AND OPTIONS provided:**

1. Automatic pilot lighting with gas shutoff.
2. Gas pressure regulator and manual cutoff.
3. Stainless steel front. Sides and back heat resistant black enamel.
4. Top to have two sections heavy cast iron polished plates.
5. Porcelain enamel drip trays.
6. Oven porcelain enamel steel interior 26-inches wide x 28-inches depth x 14-inches tall.
7. Insulated enclosure.
8. Raised back guard.
9. Chrome plated steel wire racks, 4 per oven.
10. Stainless steel adjustable legs, minimum 6-inches tall.
11. Stainless steel front tope ledge.
12. Rear gas connection.

**2.03 K-3 TILTING BRASING PAN (GAS):** 40 gallon capacity power tilt skillet with modular base cabinet. AGA certified and NSF listed.

**A. SERVICES:**

1. Electrica - 115Volts/60Hz/1 Phase/3 Amps
2. Gas - 200,000 BTU/Hr. - 3/4-inches Supply (verify with utility company natural or propane gas).
3. Vent - Skillet placed under exhaust hood
4. Drain - Trench drain in floor. 24-inches x 36-inches trench drain shall be placed 22-inches from end of knee wall to the outside edge trench drain and 23-inches from back of trench drain to knee wall by Div. 15

**B. APPROVED MANUFACTURER AND MODEL:**

1. Cleveland/ #SGL-40-TR

**D. FEATURES AND OPTIONS PROVIDED:**

1. Pan carrier (PCS) with drain pan assembly (Drain Pan 6) complete with 8-ft. x 2-ft. hose with hose clamp.
2. Stainless steel cabinet base #10M (sized to suit skillet) with stainless steel adjustable legs (6-inches minimum).
3. Stainless steel clad cooking surface.
4. Power tilt.



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5. Stainless steel covered cornered pan with water level markings.
6. Electronic adjustable thermostat controls (100° to 425°F).
7. Electronic spark ignition, two pilot lights.
8. Anti-splash pouring lip.
9. Heavy gauge one-piece cover with counter balancing spring type activator.
10. Switch operated smooth action electric tilting mechanism with manual over-ride backup. Hand crank also to be provided.

**2.04 K-4 TWO COMPARTMENT STEAMER (GAS):** two compartment stainless steel non-pressure steamer with two atmospheric steam generators, complete with base cabinet. AGA certified and NSF listed; shall be placed 6-inches of knee wall.

**A. Services:**

1. Electrical - 115 Volts/60HZ/1 Phase, 4 Amps.
2. Gas - 90,000 BTU/Hr. - 1/2" size (verify with utility company natural or propane gas).
3. Water - 3/4-inch cold (hose connection).
4. Drain - 1 1/2-inch indirect waste. Floor sink by Div. 15 placed 7-inches off knee wall.
5. Vent - Steamer placed under exhaust hood

**B. APPROVED MANUFACTURER AND MODEL:**

1. Groen/ #HY-6G

**C. FEATURES AND OPTIONS PROVIDED:**

1. Individual 60 minute timers.
2. Removable double panel doors.
3. Stainless steel adjustable legs (6-inches minimum).

**2.05 K-5 ICE MAKER:** 540 Lbs/24 hour, half dice with bin adapter and legs. NSF approved. Place ice machine 6" from wall

**A. SERVICES:**

1. Electrical - 208V/60Hz/1 Phase, 9.2 Amps
2. Water - 1/2- CW, cut off valve.
3. Drain - 3/4-inch condenser, 3/4- bin, indirect waste.
4. Trench Drain: Place 6-inches x 24-inches trench drain 37-inches from wall to back edge trench drain.

**B. APPROVED MANUFACTURER AND MODEL:**

1. Manitowoc #IY-0604A / Bin Adapter S-570.

**C. FEATURES AND OPTIONS PROVIDED:**

1. Stainless steel adjustable legs, 6-inches minimum.
2. Dishwasher safe, reusable filter.





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**2.06 K-5A ICE MACHINE-WATER FILTRATION**

A. APPROVED MANUFACTURER AND MODEL:

1. Manitowoc – Arctic Pure AR-20000

**2.07 K-6 ROLL-IN REFRIGERATOR: K6A ROLL-IN RACKS:** two compartment, medium temperature refrigerator, complete with roll-in racks, one side access, NSF approval. Must accommodate an opening of 27-inches x wide x 29-inches depth x 66-inches tall for roll-in racks

A. SERVICES:

1. Electrical - 120V/60Hz/1 Phase, 16.2 Amps, 1/2 Hp. Standard three wire 8-ft. cord and plug.
2. Receptacle by Div. 16 to be placed 72-inches AFF to bottom of receptacle

B. APPROVED MANUFACTURER AND MODEL:

1. Hobart/ QES2
2. Traulsen/ RRI232 LUT
3. Victory / RIA 2D S7

C. FEATURES AND OPTIONS PROVIDED as required by OWNER:

1. Stainless steel, front, ends and doors.
2. Stainless steel interior crimped.
3. Roll-in racks sized to fit refrigerator, 26 pans @ 18-inches x 26-inches.
4. Inclined exterior ramp.
5. Hinged *glass* doors.
6. Provide door hold open latch.

E. Quantity Building: Two refrigerators, eight roll-in racks.

**2.08 K-7 HOT HOLD CABINET: K-7A ROLL-IN RACKS:** Roll-in two compartments, hot food cabinet, complete with roll-in racks, one side access. NSF approved and shall accommodate an opening of 27-inches wide x 29-inches depth x 66-inches high, for roll-in racks.

A. SERVICE:

1. 208V/60Hz/1 Phase, 8.6 Amps.
2. Receptacle by Div. 16 to be placed 72-inches AFF to bottom of receptacle.

B. APPROVED MANUFACTURER AND MODEL:

1. Hobart QESF2
2. Traulsen RIH 232 L FHS
3. Victory HIA-2D7

C. FEATURES AND OPTIONS PROVIDED:

1. Stainless steel front ends and doors.
2. Stainless steel interior crimped.
3. Roll-in racks sized to fit enclosure, 26 pans @ 18-inches x 26-inches.
4. Inclined exterior ramp.
5. Hinged solid doors.



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E. Quantity Building: Two Cabinets, Eight roll-in racks.

**2.09** K-8 COMPARTMENT SINK: four compartment stainless steel sink with drain board each end, complete with faucets and trim, 14 gauge stainless steel, Type 304, seamless welded.

A. SERVICES:

1. Hot and cold water.
2. Indirect waste

B. APPROVED MANUFACTURER AND MODEL:

1. Elkay 8-14 CNSF 8400 - LR (custom)

C. FEATURES TO BE PROVIDED:

1. Four sink compartments 24-inches deep x 30-inches wide x 14-inches bowl depth.
2. Two drain boards "V" 48-inches wide.
3. Depth overall 27 1/2-inches x 18ft. length x 36-inches tall to rim.
4. 8-inches High backsplash.
5. 3/4-inch Radius coved corners.
6. Eight LK-251-F flanged feet, adjustable.
7. Two each Chicago 445-DJ18 faucets.
8. Four each LK-27 wastes with removable strainer baskets.
9. Two each under shelves (under drain boards).

**2.10** K-9.2 COMPARTMENT SINK: 2 compartment stainless steel sink with drain board each end, complete with faucets and trim, 14 gauge stainless steel, Type 304, seamless welded (Not Used)

A. SERVICES:

1. Hot and cold water.
2. Indirectwaste

B. APPROVED MANUFACTURER AND MODEL:

1. Elkay 8-14 CNSF 8200 - LR

C. FEATURES PROVIDED:

1. Two sink compartments 24" deep x 30-inches wide x 14-inches bowl depth.
2. Two drain boards ± 48-inches wide.
3. Depth overall 27 1/2-inches x 13-ft. length x 36-inches Ht. to rim.
4. 8-inches High backsplash.
5. 3/4-inch Radius coved corners.
6. Eight LK-251-F flanged feet, adjustable.
7. One each Chicago 445-DJ18 faucet.
8. Two each LK-27 wastes with removable strainer baskets.
9. Two each 16 gauge stainless steel under shelves (under drain boards).

**2.11** K-10 COOKING EXHAUST HOOD



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- A. SERVICES: see also SECTION 15371.
  - B. APPROVED MANUFACTURER AND MODEL:
    - 1. See DP Design and Construction Documents.
  - C. REQUIREMENTS:
    - 1. As quiet as possible with all utilities located within trim accessories; meeting health department requirements that all vapor laden kitchen equipment to be located under the hood. This would include steamer, oven, skillet, and kettle.
    - 2. Must have a water supply under or near the hood to fill up the pots and the steamer pans with a floor drain for cleaning that does not slope where the equipment is placed. Equipment needs to be level.
    - 3. Penetrations or attachments e.g. screws add to the hood are prohibited, shall comply with UL-300, and see also, SECTION 15371.
- 2.12** K-11 **BAKERS TABLE** with wood top work table with under shelf, 30-inches x 60-inches x 34-inches Ht.
- A. APPROVED MANUFACTURER AND MODEL:
    - 1. W-3060-SX Tabco/ Advance Model BST305
  - B. FEATURES TO BE PROVIDED:
    - 1. 1 ¾-inch thick laminated hard maple top.
    - 2. Stainless steel legs, adjustable feet.
    - 3. 18 Gauge stainless steel under shelf.
- 2.13** K-11A **3 COMPARTMENT SINK**: three compartment stainless steel sink with drain board each end, complete with faucets and trim, 14 gauge stainless steel, Type 304, seamless welded.
- A. SERVICES:
    - 1. Hot and cold water.
    - 2. Indirect waste
  - B. APPROVED MANUFACTURER AND MODEL:
    - 1. Elkay 8-14 CNSF 8200 - LR (custom)
  - C. FEATURES TO BE PROVIDED:
    - 1. Three sink compartments 24-inches deep x 30-inches wide x 14-inches bowl depth.
    - 2. Two drain boards "V" 48-inches wide.
    - 3. Depth overall 27 ½-inches x 15ft.-6-inches length x 36-inches Ht. to rim.
    - 4. 8-inches High backsplash.
    - 5. ¾-inch Radium coved corners.
    - 6. Eight LK-251-F flanged feet, adjustable.
    - 7. Two each Chicago 445-DJ18 faucets.
    - 8. Three each LK-27 wastes with removable strainer baskets.
    - 9. Two each under shelves (under drain boards).



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**2.14** K-12/ K-12A **POT FILLER** for steam kettle shall be placed to the right of this unit.

- A. Services:
  - 1. Water - hot and cold
- B. APPROVED MANUFACTURER:
  - 1. K12 Floor mount T&S Brass B-0193.
  - 2. K12A mount T&S Brass B-0610.

**2.15** K-13 **PROOFING** CABINET: insulated heater proofer cabinets.

- A. SERVICES: 115V/60Hz/1 Phase, 14.6 Amps.
- B. APPROVED MANUFACTURER AND MODEL:
  - 1. Winston/ HA4522
  - 2. Traulsen/ RHF132W-FHS
  - 3. Victory/ HS-1D-1
  - 4. Vulcan/ VBP 151
- C. FEATURES OF STANDARD AND OPTIONAL ITEMS, Provide the following:
  - 1. Stainless Steel construction.
  - 2. Bottom vinyl bumper.
  - 3. Stainless Steel hinged door.
  - 4. Thermostatically controlled heating unit.
  - 5. Size for and provide 18 - 18-inches x 26-inches pans.
  - 6. Heavy duty 5-inches diameter casters.
  - 7. 8-ft. long plug-in cord.
- E. QUANTITY: 4 in Kitchen.

**2.16** K-14 **DISHWASHER** fully automatic, rack type, right to left operation, vent hood.

- A. Services:
  - 1. Electrical - 460V/60Hz/3 Ph, 2 Hp, 2.7 Amps – relay to tie into hood exhaust fan.
  - 2. Water - hot and cold.
  - 3. Vent - Connect hood, see also SECTION 15891.
  - 4. Drain - Indirect waste.
- B. APPROVED MANUFACTURER AND MODEL:
  - 1. Hobart C-44A
- C. Features and Options to be provided:
  - 1. Vent hood, C-line.
  - 2. Stainless steel leg trim.
  - 3. Stainless steel adjustable legs.
  - 4. 3-inches trap.
  - 5. Motorized rack advance conveyor inside dishwasher only.



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6. Single point electrical connection.
7. Six 19 3/4-inches x 19 3/4-inches racks (4 Peg/2 Com).
8. Automatic fill.
9. Provide pressure regulator
10. Equipment disconnect, see also SECTION 16170.

**2.17 K-15 SCULLERY COUNTERS:** Two sections, 30-inches front to back depth, lengths as indicated, 14 gauge Type 302 stainless steel, 18-8 with 1<sup>5</sup>/<sub>8</sub>-inches O.D. stainless steel tubular legs with stainless steel adjustable feet. Tops to be 34-inches high with 3-inches high x 180° rolled rims, 8-inches high backsplash with bevel top edge.

A. SERVICES:

1. Water - hot and cold.
2. Drain - indirect waste

B. APPROVED MANUFACTURER AND MODEL:

1. Custom Built

C. FEATURES PROVIDED:

1. 24-inches x 24-inches x 10-inches Deep pre-rinse sink with removable baskets and lever waste.
2. Chicago #923 pre-rinse faucet.
3. One each LK-27 waste with removable strainer basket.
4. Custom reduction taper and lip to mate with dishwasher.
5. 34-inches High top continuation thru Scullery wall opening (flush backsplash to coordinate with counter shutter). Turn outer lip down and return and close ends with all seams welded and edges polished.
6. Scrape hole and ring.
7. 16 Gauge stainless steel undershelf between all legs, except at scrape hole.
8. NSF approved construction.

\* Need the above additional sink for silverware soak sink with shoot.

**2.18 K-16 HAND SINK (BY DIVISION 15)**

**2.19 K-17 DUNNAGE RACK** Mobile Racks 18-inches x 36-inches size.

A. Approved Manufacturer and Model

1. Cambro DR360-20# quantity 12

B. Features to be Provided:

1. Specked Gray (480) shelf.

**2.20 K-36 VERTICAL CUTTER MIXER** free-standing cutter mixer with bowl tilt. (Not used).

A. Services: Electrical - 460V/60Hz/3 Ph., 20 amp.

B. Approved Manufacturer and Model

1. Hobart #HCM-450



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2. Winston Therm and Hold Cabinet

C. FEATURES PROVIDED:

1. 5 HP dual voltage motor, single speed 1140 RPM.
2. Magnetically operated start and stop.
3. 5 Minute time.
4. 6-ft. Electrical cable, plug and receptacle.
5. Stainless steel 45 quart bowl, 90° tilt.
6. Bowl cover.
7. Bowl tilt mechanism.
8. Mixing baffle.
9. Stainless steel cut/mix attachment, blades and spacers, knead/mix attachment.
10. Strainer basket.

**2.21 K-19 40 QUART MIXER**

- A. SERVICE: 480 V/ 3 PH.
- B. APPROVED MANUFACTURER AND MODEL:
1. Hobart D-340T with deluxe accessory package.

**2.22 K-20 60 QUART MIXER**

- A. SERVICE: 480 V/ 3 PH.
- B. APPROVED MANUFACTURER AND MODEL:
1. Hobart H-600T with deluxe accessory package.

**2.23 K-21 SLICER AND TABLE**

- A. APPROVED MANUFACTURER AND MODEL:
1. Hobart 2612 and table
  2. Advance-Tabco MT-MS 300 with TA33.

**2.24 K-22 TABLE**

- A. APPROVED MANUFACTURER AND MODEL:
1. Advance-Tabco SS306/SS-2020, 7-required. SS306/SS-2020/SCT72, (2) two required

**2.25 K-23 COLD FOOD COUNTER:** 5-ft. long x 30-inches wide, open stainless steel base with molded fiberglass sides, refrigerated frost top table on casters, NSF and UL approved.

- A. SERVICES:
1. Electrical - 208V/60Hz/1 Ph., 5.2 Amps.
  2. Drain – container.
- B. APPROVED MANUFACTURER AND MODEL:



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1. Colorprint 60 – CFMATemp-est Aire.
- C. DESCRIPTION: 5-ft. long x 30-inches wide, open stainless steel base with molded fiberglass sides, refrigerated frost top table on casters, NSG and UL approved.
- D. FEATURES AND OPTIONS TO BE PROVIDED:
  1. 12-inches “V” ridge tray slide student side (Option A).
  2. 10-inches cutting board, serve side (Option D).
  3. Fluorescent lights (Option P).
  4. Bottom tier refrigerated (infers that the bottom is a refrigerated base).
  5. 4-inches Diameter ball bearing non-marking swivel casters, all with brake.
  6. Line up locks (Option AA).
  7. Drain valve – drain valve to located on kitchen staff side of unit and mounted 12-inches below countertop.
  8. Cord and plug (cord length to suit application). Modify for a wire rack (minimum) of 4 J hooks and provide cord and plug. *The cord must be the proper length to span under the cold food counter to the required receptacle*

**2.25A K-23A COLD FOOD COUNTER**

- A. SERVICES: same as K-23 but shorter length

**2.26 K-24 HOT FOOD COUNTER:** 74-inches length x 30-inches wide, open stainless steel base with molded fiberglass sides solid top table on casters, NSF and UL approved.

- A. SERVICES: Electrical - 120V/60Hz/1 Ph.
- B. APPROVED MANUFACTURER AND MODEL:
  1. Colorpoint/ 74- CPS
- C. FEATURES AND OPTIONS PROVIDED:
  1. 12-inches “V” ridge tray slide student side (Option A).
  2. 10-inches Cutting board, serve side (Option D).
  3. Two tier display, sloped front (Option I).
  4. Top tier- Infra-red strip only (option S); LED lights (Option RR).
  5. Bottom tier – Infra-red strip only (option S); LED lights (Option RR)
  6. 4-inches Diameter ball bearing, non-marking casters, all with brakes.
  7. Line up locks (Option AA).
  8. Convenience outlet, flush mount (Option DD).
  9. Cord and plug. Cord and plug (cord length to suit application). Modify for a wire rack (minimum) of 4 J hooks and provide cord and plug. *The cord must be the proper length to span under the cold food counter to the required receptacle.*

**2.26A K-24A HOT FOOD COUNTER**

- A. Same K-23 as but shorter length



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**2.27/ 2.27A    K-25/ K-25A MILK COOLERS**

- A. APPROVED MANUFACTURER AND MODEL:
1. Beverage-Air SM49-S (2.27) 12 case cooler, one required.
  2. Beverage-Air SM34N-S (2.27A) 8-case cooler.

**2.28    K-26 CASHIER STAND**

- A. APPROVED MANUFACTURER AND MODEL:
1. Cambro/ ES28RL Black (110)
  2. Colorpoint/ CSE

**2.29    K-27 ROLLING STORAGE SHELVING (BY OWNER N.I.C.)**

**2.30    K-28 TRAY, SILVERWARE, NAPKIN DISPENSER**

- A. APPROVED MANUFACTURER AND MODEL;
1. Colorpoint/ RTE (preferred), will accept RTS)

**2.31    K-29 (NOT USED)**

**2.32    K-30 SHELVING extra heavy duty, Type 3003-14 high tensile aluminum extrusion. Frames and cross bars to be 1 ½-inch square aircraft aluminum, all heliarc welded, with no rivets allowed. Shelves to have five cross bars to hold #10, #5 and #303 can goods. Units 60-inches tall, 4 tier.**

- A. APPROVED MANUFACTURER AND MODEL:
1. Alexander Industries, Miami, FL

- B. Furnish the following:
1. Cooler SUKD-MOD 24-inches x 48-inches
  2. Freezer SUKD-MOD 24-inches x 48-inches
  3. Lifetime rust warranty.
  4. 5 year standard warranty

**2.33    K-31 COLD SERVE / SALAD 74-inchesL x 30-inchesW, enclosed stainless steel base with molded fiberglass sides, refrigerated cold food table on casters, NSF and UL approved.**

- A. Services:
1. Electrical - 208V/60Hz/1Ph.
  2. Drain - OWNER container
- B. APPROVED MANUFACTURER AND MODEL:
1. Colorpoint 74 CFMA EB
- C. FEATURES AND OPTION PROVIDED:
1. 12-inches "V" ridge tray slide, 2 sides (Option A).





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2. Buffet shield, double service (Option N).
3. Fluorescent lights, food protector, buffet shield (Option O).
4. Line up locks (Option AA).
5. Convenience outlet, flush mount (Option DD) 20 amp.
6. End drop shelf (Kitchen end) (Option FF).
7. Cord and plug.

**2.34 K-32 DRY STORAGE SHELVING** : Extra heavy duty 14 gauge circu-air shelving.

A. APPROVED MANUFACTURER AND MODEL:

1. ISS Gold Bond, Inter Metro
2. Amco

B. FURNISH THE FOLLOWING:

1. Dry Storage - 21- 21-inches x 54-inches and 8- 18-inches x 36-inches
2. Height of all shelving is 66-inches Model H-66-SU.
3. Furnish five shelves each section.

**2.35 K-33 HOSE REEL** (BY DIVISION 15)

**2.36 K-34 JACKETED STEAM KETTLE:** Commercial steam kettle with floor mount adjustable legs.

A. SERVICES:

1. Electric – 110V
2. Gas
3. Vent – Kettle placed under exhaust hood

B. APPROVED MANUFACTURER AND MODEL:

1. Groen AH/1E-40

**2.37 K-35 WALL MOUNTED FAN** – By Division 15

**2.38 K-36 THERMALIZER OVEN** – (One required, verify with PCSB Nutrition Supervisor): Double deck oven mounted on (2) two locking and (2) two non-locking heavy duty, non –marking casters.

A. SERVICES: Electrical 208 volt/60Hz/3 Phase, 33.7 amps

B. APPROVED MANUFACTURER AND MODEL:

1. CVap Thermalizer Oven Model CAT 522

C. FEATURES AND OPTIONS PROVIDED:

1. MATERIALS: To be commercial and institutional grade stainless steel interior and exterior.
2. RACKING OF FOOD: Adjustable, normally spaced 3.5-inches (80 mm), to receive 14 sheet.



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3. DOORS: Field reversible hinges to allow door lift off to facilitate cleaning. Magnetic door latch
4. CASTERS: (2) two locking, (2) two non-locking, heavy duty, non-marking.
5. INSULATION: Full-perimeter.
6. CONTROLLER: Computerized processor control with eight pre-programmed retherm cycles which can be operator-adjusted to precise temperature, food texture and time.
7. WATER FILL: Connect to potable water supply through saddle valve and tubing kit (supplied).
8. ELECTRICAL: Supplied with 84-inches (2134 mm) (minimum) power cord and plug.

**2.39 WALK-IN COOLER/ FREEZER ENCLOSURE**

**A. WARRANTY**

1. Thermo-Kool, Mid-South Industries, Inc., guarantees original purchases of structure for ten (10) years.
2. All other parts such as hardware are warranted for one (1) year.
3. Refrigeration is to carry the standard one (1) year compressor warranty with the extended four (4) year compressor warranty for a total of five (5) years.
4. A complete set of installation instructions shall be included. Plans shall also be provided for correct placement of doorway and hinging.

**B. COMBINATION WALK-IN COOLER/FREEZER (INSIDE UNIT)**

**1. SCOPE:**

- a. Combination cooler/freezer shall be constructed with modular prefabrication, precision formed metal clad panels to conform to drawings and specifications. Cooler/Freezer shall be those manufactured by Thermo-Kool, Mid-South Industries, Inc., of Laurel, Mississippi. The equipment referenced has been tested in an environment like its intended use and **no substitutions** shall be permitted.
- b. Pre-submitted proof and complete descriptive literature must accompany all proposals establishing conformance with the following:
  - (1) National Sanitary Foundation (NSF) Standard No. 7 construction.
  - (2) Underwriter's Laboratories (UL) approval of door electrical circuit assembly.
  - (3) Underwriter's Laboratories (UL) Class I fire hazard UL723 (ASTM-E-84) using HCFC22 blown insulation.
  - (4) United States Department of Agriculture (USDA).

- C.** Deliver, install and warranty the combination cooler/freezer and Alexander shelving as described below. Unit is for inside installation. Cooler/Freezer shall be complete with shelving and all necessary electrical and mechanical hook-ups. Installation, electrical, and mechanical connections shall be considered as part of the General Contractor's scope of work.

- D.** Exterior height of walk-in is 7-ft., 6-inches with interior height 6-ft., 10-inches from interior floor surface to interior ceiling surface. Nominal dimensions are not acceptable for space capacity reasons and shelving requirements.

- E.** No internal ceiling supports such as post and I-Beam. Only exterior walls and cooler/freezer divider wall may be used for roof bearing.



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**F. PANEL CONSTRUCTION**

1. Four inch (4-inches) foamed in place durathane panels. Wood, wood fiber, or polystyrene are unacceptable. There shall be no wood of any kind in structure. All balloon gaskets shall be factory installed. Edges of panels shall be foamed-in-place tongue and groove with locking facilities foamed-in-place at time of fabrication. Metal strapping between male and female camlocks are unacceptable due to conductivity of metal. The entire perimeter of all panels are to be high-density durathane construction.
2. Freezer and cooler are with floor. Floor is to be a full four inches (4-inches) thick, heavy duty, with internal supports. Surface metal is to be 1/8-inch treadplate on 1/2-inch plywood subfloor on 12 Ga. Hatshaped expanded steel structural supports (3 1/4-inches hat and 1-inch legs) with .040 exterior metal skin. Core is low density urethane. Sides are 2"x4" #2 pine stud supports with high density urethane foam perimeter. All wall panels are to be tongue and grooved configuration with NSF double gaskets factory installed to meet NSF regulation standard No. 7. NSF listed gaskets shall be attached to the male side of all panels, on both interior and exterior. Gaskets shall be impervious to stains, greases, oils, mildew, etc.
3. Wall and floor panels to be equipped with self-centering steel cam locking devices, minimum of three (3) per vertical wall side. Lock access ports to be snapped in PVC caps to seal ports.
4. Insulation shall be four inches (4") thick rigid, low ozone depleting HCFC22 blown Class I urethane foam classified according to UL723 (ASTM-E-84) as tested by Underwriters Laboratories, Inc. The four inch (4") core material shall have a flame spread of twenty five (25) or less and a smoke density of two hundred fifty (250). The UL Label must be affixed to each panel.
5. Urethane insulation to be rated at:
  - a. K - 0.125
  - b. U - 031
  - c. R - 32.0
6. Fabrication and finish of partition walls shall be the same as the walk-in walls and shall lock into wall, ceiling, and/or floor panels, with "Insta-Lock" assemblies. Tongue and groove foam fabrication shall provide the thermal break between cooler and freezer compartments. Wall "T" panels shall be 23-inches x 12-inches symmetrical tee. Heater wires not required. Butted walls are not acceptable. Metal strapping in walls are unacceptable.

**G. FINISH**

1. Interior walls, ceilings and partition walls are to be twenty six (26) gauge stucco embossed galvanized with a mill finish. (Galvalume is unacceptable).
2. Exterior walls (exposed and unexposed), including ceiling edge caps are to be twenty six (26) gauge stucco galvanized. (Galvalume is unacceptable).

**H. ENTRANCE DOOR AND DOOR PANEL**

1. Each walk-in shall be fitted with one standard 34-inches x 76-inches swing-type entrance door. The door shall be flush mounted type, finished in and out to match the wall in which located. Doors and door section shall be listed by Underwriters Laboratories and equipped with the following:



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2. Door frame shall be made of heavy twelve (12) gauge reinforced steel "U" channel encompassing entire perimeter of opening. FRP plastic door frames are unacceptable to eliminate door sagging after a period of time. An armored anti-sweat low wattage heater cable shall run in a breaker strip behind a removable heavy gauge stainless steel trim for easy access. Cable is to run under stainless steel threshold. Heater wire in door plug is unacceptable for energy saving reasons.
3. Door shall be equipped with a NSF approved/PVC accordion type magnetic gasket, hydraulic door closure and latch. Hardware has provisions for locking and a safety release which prevents entrapment of personnel within the box.
4. Door shall be self-closing with three (3) 9-inches strap-type, camlift hinges. Furnished in polished chrome. Door handle shall be furnished with both pad lock and cylinder lock abilities with two (2) keys per lock. Padlock furnished by end user.
5. Each entrance door section shall be provided with a vapor proof light fixture and pilot light switch and conduit between switch box and outlet box. Concealed wiring shall be standard on each entrance door section. Door section must carry an affixed UL electrical approval sticker. 115 Volt, 60 cycle, single phase AC.
6. Provide a heated air vent (pressure relief port) to equalize pressure within the freezer section due to temperature variations caused by door opening or defrost cycles. Vent to be installed in ceiling panel adjacent to door panel. Vent shall be heated to prevent moisture accumulation. Ping-pong ball type port/vent is unacceptable. 115 Volt, 60 cycle, single phase AC.
7. A stainless steel threshold shall be provided with each door section. Heater wire shall continue beneath the threshold in both cooler and freezer. (Furnish heater wire in cooler as well as freezer.) Fiberglass/PVC threshold is unacceptable. Cooler/freezer shall have interior NSF approved ramp, with non-skid strips for safety, as indicated on drawings.
8. A two inch (2") diameter, adjustable, chrome faced, flush mounted thermometer shall be included with each compartment and mounted in the door section to indicate inside temperature -40 degrees to +60 degrees F. Solid state digital either electric or solar are unacceptable.

**E. ACCESSORIES**

1. Provide and install commercial - industrial rated moisture proof, low temperature ballasts only, fluorescent lights – two (2) per cooler and two (2) per freezer compartment. Lights to be two (2) tubes, eight inches (8-inches) wide by four feet (4-ft.) long,
2. Manufacturer: Appleton No. FRS2604W120HO.

**F. REFRIGERATION SYSTEM**

1. The following pre-assembled remote refrigeration shall be supplied with the walk-in to maintain a -10 degree F. for moderate usage on freezers and +35 degrees F. for moderate usage for coolers. 0 degrees rating on freezer is unacceptable.
2. All Thermo-Kool refrigeration is pre-assembled remote, Copeland Compressors; extreme winter controls and hoods are required. Winter controls include low pressure control, temperature control, solenoid valve for pumpdown, crankcase heater, and head master control. On low temperature systems the time clock is to be mounted on



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condensing unit at factory.

3. All condensing units are to be semi-hermetic when one horse power or more. Hermetic units are unacceptable over one horsepower or greater. Supply condensing unit with a matching blower coil (Bohn) to be low profile selected at -10 degrees TD. Installing CONTRACTOR is to furnish the "L" copper drain line, with pea traps, (heater tape, is to be factory installed and shipped to job site), and one inch (1") armorflex insulation. Control wiring from coil to compressor is to be furnished by installing refrigeration CONTRACTOR. Final connections are by installing CONTRACTOR. The system must be leak checked, evacuated and charged with refrigerant (R-22 cooler and R-22 freezer). All systems must meet or exceed the Montreal Protocol Act.
4. Furnish the following refrigeration:
  - a. Cooler: Model #RPCM-200, 1 HP Medium Temp, 208/230 Volts, 60 cycle, 3 Phase with Bohn ADT-0900 matching evaporator at 8.5 amps.
  - b. Freezer: Model #RPCL-200, 2 HP Low Temp, 208/230 Volts, 60 cycle, 3 Phase with a Bohn LET-0901 matching evaporator with electric defrost at 10.1 amps.

(Do not substitute lower horsepower other than sized specified.)

NOTE: All refrigeration penetrations are to be foamed shut.

**PART 3 – EXECUTION**

**3.01 SCULLERY COUNTERS AND SINK UNITS**

- A. Coordinate installation with Division 15 and 16. Carefully field measure and fabricate for close fit to walls. Neatly caulk joint between backsplash and walls. Secure units to walls with stainless steel clips. All must drain properly.

**3.02 DRY STORAGE AND COOLER/FREEZER SHELVING**

- A. Erect according to manufacturer's instructions in location indicated on drawings or as directed by PCSB Representative.
- B. All shelving over 60-inches tall shall be attached to a wall to prevent overturning.

**3.03 COOKING ISLAND EQUIPMENT**

- A. Deliver to job site fully assembled and protectively crated. Install at locations designated, leveled and aligned. Coordinate service connections by Divisions 15 and 16.

END OF SECTION



**DIVISION 11**

**SECTION 11500 — KILN AND EQUIPMENT**

**PART 1 – GENERAL**

**1.01 EXTENT OF SECTIONS**

- A. This section outlines the kiln, component parts and kiln room design requirements.
- B. The intent of the PCSB STANDARDS is for the DESIGN PROFESSIONAL (DP) to comply with the minimum general project requirements and the specific project specifications shall be generated and provided by the DP.

**1.02 DESIGN REQUIREMENTS FOR KILN ROOM**

- A. Kiln rooms shall be equipped with a main power disconnect in close proximity to the kiln or on the kiln itself, to provide back-up circuit protection to equipment and to persons servicing the equipment. The disconnecting device shall be capable of interrupting maximum fault current as well as rated load current.
- B. Supply Power shall be controlled by thermostatic control.
- C. OUTSIDE EXHAUST: Kiln rooms are to have a ducted to exhaust to the exterior of the building and fan size according to the kiln manufacturer's recommendations and DP's calculations, also see DIVISION 15.
  - 1. Door vent shall not be the only means of air-exchange.
  - 2. In-take air must have make-up air.
- D. The electrical power, ventilation and installation shall conform to appropriate provisions of the National Electric Code and NFPA 86, current editions.
- E. DP to verify in drawings that door opening is wide enough for kiln equipment to fit through.

**PART 2 – PRODUCTS**

**2.01 KILN**

- A. APPROVED MANUFACTURER/ Model No.:
  - 1. Jen Ken Model JK-2431: Description - Electric Ceramic, 10 sided firing chamber. Cone 8 rating, Dawson Kiln Sitter and limit timer. Front controls. Stainless steel case. Adjustable case clamps, peep holes, protective aluminum base plate, pilot light, safety timer, back-up shutoff device.
  - 2. Services: Electrical 208V / 1 Ph / 60 Hz.
  - 3. Warranty: Two years, parts and labor.

**2.02 COMPONENTS**

- A. METAL SHELVING (KILN)



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**SECTION 11500 — KILN AND EQUIPMENT**

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1. Global Industrial Equipment, Model No. CG331380, wire shelving 12-inches deep x 36-inches wide individual sections x 63-inches high with five shelves each section;
  2. Finish: black matte epoxy;
  3. Furnish extra hardware for fifth shelf and back and side ledges for all shelves.
- B. METAL SHELVING (UTILITY)**
1. Global Industrial Equipment, open commercial shelving, 36-inches wide individual sections x 75-inches high, 5 shelves per unit:
  2. Posts -14 gauge steel roll formed rib angle
  3. Shelves - 20 gauge steel triple formed.
  4. Braces - 16 gauge steel.
  5. Finish - Phosphatized baked enamel (gray).

END OF SECTION



## **PART 1 – GENERAL**

### **1.01 EXTENT OF SECTION**

- A. This section contains the requirements relating to manufactured, preassembled, and field assembled equipment for scientific use; including service fittings and accessories, fume hoods, incubators, sterilizers, refrigerators, and emergency safety appliances especially designed for laboratories.
- B. The intent of the PCSB STANDARDS is for the DESIGN PROFESSIONAL (DP) to comply with the minimum general project requirements and the specific project specifications shall be generated and provided by the DP.

### **1.02 GENERAL COORDINATION**

- A. DP shall coordinate with the PROJECT COORDINATOR the specific types and quantities of equipment required and differentiate FF&E items from those provided in this section.
- B. DP shall coordinate requirements and locations for electrical power for all laboratory equipment.
- C. DP shall coordinate special HVAC requirements for Laboratory equipment.
  - 1. Coordinate vents with fire-rated shaft construction where required by Florida Fire Prevention Codes (FFPC), latest edition.
  - 2. Coordinate make-up air to maintain air balance when hoods are running or stopped.
- D. DP shall coordinate special services, such as gas and water and compressed air.
- E. DP shall coordinate special plumbing requirements, such as deep sinks, and lab faucets.
- F. DP shall coordinate heights, widths, and weights of bench mounted equipment with that of base cabinet construction- including anchoring to walls.
- G. The use of particleboard in the construction of laboratory casework, or in millwork to be located in wet areas, is prohibited.
- H. DP shall coordinate proper venting of flammable material storage. Flammable and other hazardous materials storage cabinets shall not be vented unless required by AHJ.
- I. Coordinate with PCSB Fire Marshal for when cabinets are required based on quantities of chemicals. The PROJECT COORDINATOR shall provide the DP with expected quantities of chemicals for new facilities.
- J. Coordinate acid waste piping requirements with plumbing.
- K. Fume Hoods.
  - 1. Provide integral base cabinet or non-combustible countertop for all hoods
- L. Chemical Storage Cabinets:





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1. Acid and Corrosive cabinets may be constructed of materials other than steel provided they are UL certified for intended use.
2. Flammable storage cabinets shall be steel.

M. All required shut-offs install per SREF and FBC, latest editions.

N. ALL POWERED EQUIPMENT SHALL BE UL RATED.

## **PART 2 – COMPONENTS**

### **2.01 LAB EQUIPMENT**

#### **A. FUME HOODS**

1. Vertical sash design.
2. Pre-wired and plumbed for gas, hot/cold water, compressed air, electrical outlets and vapor sealed light fixture and switch.
3. Back-flow prevention device shall be installed on the outside of the cabinet.
4. Integral ventilated base cabinet.
5. All power outlets and switches shall be located on the exterior face of the hood (not internal).
6. Internal hood lights shall be fitted with vapor seal lenses.
7. Provide and install an anemometer in the fume hood to monitor air flow velocity.
8. Materials composed of the hood construction shall be compatible with the substances to be utilized through the hood. Common liner materials include stainless steel, porcelain, mineral board and epoxy. Common duct materials include stainless steel, fiberglass, and coated galvanized steel.
  - a. The blower, housing and exhaust stack, shall be compatible material. Asbestos-containing materials are not permitted for use in fume hood construction.

#### **B. CHEMICAL STORAGE CABINETS**

1. Shall meet OSHA and NFPA-30 requirements.
2. All steel construction with integral reservoir base:
  - a. Chemical resistant, baked-on enamel coating
  - b. Interior polypropylene lining
3. Locking doors.
4. Chemical spill reservoir.
5. Acid resistant shelving.
6. Self-closing doors.
7. Separate poly cube to be provided for nitric acid storage.
8. Cabinets used to store flammable or corrosive materials shall be labeled with appropriate signage.

#### **C. FLAMMABLE STORAGE CABINETS:**

1. Shall meet NFPA and OSHA requirements.
2. No prior venting required, however if vented the following criteria is required:
  - a. Exhaust cannot be coupled to any other exhaust system.
  - b. Exhaust piping must be made of metal (PVC piping shall not meet regulations).
  - c. The cabinet should be exhausted through both the upper and lower vents at a combined airflow of 25 cfm.



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- d. Series venting not allowed, each cabinet shall be vented independently to eliminate possibilities of vapors combining and reacting with each other.
- e. No more than three flammable storage cabinets may be housed in any location, unless there is a minimum of 100-ft. of separation.

**D. LAB GLASSWARE WASHERS**

1. Reinforced steel cabinet with vandal resistant locking double doors equipped to hold 35 pairs of goggles.
2. Provide a built-in fully shield germicidal lamp with automatic timer control.
3. Basis of Design: Campbell Rhea Model 6782 with 35 pairs of #6786 goggles.

**E. EMERGENCY EYE WASH STATIONS:** Emergency eye wash stations are required to conform to the following:

1. ANSI Z358.1-Current Standards and FBC - Accessibility.
3. Shall be located less than 100 feet from chemical use areas of labs or hazardous areas.
4. Total travel time from hazard may not be more than 10 seconds.
5. Shall not be located behind doors or other obstacles.
6. Shall have a "stay open valve". Once activated, this "hands off" valve shall not be turned off without intentional action of the user.
7. Flow from unit shall not be less than 0.4 gallons (1.5 liters) of water per minute.
8. Unit shall be capable of maintaining flow for a minimum of fifteen minutes.
9. Nozzles shall be protected from airborne contamination when not in use. These dust covers shall be self-removing once the unit is activated.
10. Locations shall be labeled with signs visible from all potential directions of travel to the unit.
11. Floor drains shall be self-priming.

**F. COMPRESSED GAS CYLINDER STORAGE:**

1. Areas where compressed gas cylinders shall be stored shall be equipped with racks and securing straps or chains. Securing straps or chains shall be installed so they are located within the upper  $\frac{1}{3}$  of the cylinder.
2. Gas storage areas shall be planned so that incompatible gasses are separated by the regulated distances. Gasses shall be secured as close as possible to the use point to minimize excessive runs of piping or tubing.
3. Extremely hazardous gasses shall be identified to ensure they are stored within compressed gas safety cabinets. This must be reviewed by PCSB Fire Marshall during plan review and prior to system that shall exhaust to the roof of the building. This dedicated exhaust shall run continually when a cylinder is located in the cabinet, be intrinsically safe and have emergency power back up.
4. Some compressed gas cylinder storage cabinets may need to be sprinkled for fire protection as required by the gas to be housed in the unit. Consult PCSB Fire Marshall for detailed requirements.
5. Highly flammable gasses, such as hydrogen, should be stored outside of the Facility in Flammable Storage Room.

END OF SECTION