

April 8, 2021

SOLICITATION ADDENDUM NO. 2

ITB 20-0028

Westview High School Culinary Classroom Renovation

THE FOLLOWING CHANGES/ADDITIONS TO THE ABOVE CITED SOLICITATION ARE ANNOUNCED:

This Addendum modifies the Invitation to Bid (ITB) document(s) only to the extent indicated herein. All other areas not changed or otherwise modified by this Addendum shall remain in full force and effect. This Addendum is hereby made an integral part of the ITB document. Bidder must be responsive to any requirements of this Addendum as if the requirements were set forth in the ITB. Failure to do so may result in Bid rejection. See the ITB regarding requests for clarification or change and protests of this Addendum, and the deadlines for the foregoing.

This addendum is to be acknowledged in the space provided on the Bidder Certification form supplied in the solicitation document. Failure to acknowledge receipt of this addendum may be cause to reject your offer.

The closing date **IS CHANGED:**

April 14, 2021 at 2:00 PM Pacific Time

CLARIFICATIONS:

- There are discrepancies between the different listings of the Closing date/time in the solicitation documents and Addenda. The Closing for this Solicitation has changed to **Wednesday, April 14, 2021 at 2:00 PM Pacific Time**
- Attachments F and G do not need to be included with Bids.
- Substitution Request #1 is Accepted- Archon is an approved alternate if the products match design and s/s gauge exactly.
- Substitution Request #2 is Accepted

QUESTIONS:

Question: Please provide as-builts for the existing space.

Answer: See the below link to the 1993 As-built drawings.

[Westview HS Archive](#)

Question: What are the working hours and noise requirements?

Answer: Students are in class 7:45 am – 1:30 pm. M, Tu, Th and F. No classes on Wednesdays. During school hours all excessively noisy activities are restricted. Those activities would include concrete sawcutting, jackhammering, rotohammering, metal stud sawing and the like. Custodians are in the building to allow access from 7 am until 10:30 pm and monitors can be arranged with 48 hr notice if work needs to occur before/after those hours.

Question: Who is the building fire alarm contractor?
Answer: JCI Simplex. BSD representative will coordinate Fire Alarms being put into test as needed.

Question: Is a hazardous material survey available?
Answer: See the WHS Snap report attached.

Question: If required, will hazardous material testing and potential abatement be handled by the owner?
Answer: Yes

Question: Please confirm that existing furnishings in areas that work occurs for this project will be removed by Owner.
Answer: Culinary goods, dishwares, stools and rolling cabinets to be removed by owner. Items for reuse will be left for contractor to relocate and protect for reuse. Items to be removed and disposed of will be left for contractor.

Question: Where will laydown, parking and contractor office be located?
Answer: See G0.1 for areas identified

Question: Will background checks and badging be required? If so, what is the time commitment and cost associated?
Answer: Addressed in 6b under the Statement of Work.

Question: What are the projected start and end dates?
Answer: Address in 3. Under the Statement of Work.

Question: Where will storage for salvaged items be located?
Answer: Contractor to provide. There are no available storage areas in the building as classes are using all available spaces.

Question: Spec section 114000 - 25 Food Service Equipment items 29 and 30 appear to be incomplete. Please provide additional information.
Answer: Please see attached Spec below.

Question: Please provide the subcontractor and manufacturer of the existing roof. We want to ensure warranties are maintained.
Answer: Existing roofing was installed in 2018 by Umpqua Roofing – Manufacturer is Carlisle. Any roof work will need to be done by a Carlisle approved roofer.

Question: Due to BSD funding and payment timeline, is a Retention Bond required? This was brought up at the pre-bid walkthrough.
Answer: Yes, in the request for Qualifications, on page 5 under construction milestones, it is noted that a “Retainage bond will be required of the awarded Contractor in lieu of Retainage Account.” Language may be added as needed to the Contract to account for this requirement.

Question: Addenda drawing AD1.1, Keynote 32 states to demo lower gypsum for new cement board and refers bidder to 4B/A7.1. However, there is no detail 4B on that drawing. I assume they meant 1E/A7.1 which refers you to detail 1A on A10.1 which seems to depict approx. 8" of gypsum coming out and being replaced by the 5/8" cement board. Can you confirm this to be correct? Please advise.

Answer: AD1.1, Keynote 32 should refer to 1A/A10.1. Detail occurs at all walls in room.

Question: Same drawing, Keynote 37 state to salvage 6" face brick veneer at areas of new exterior wall cleanouts. Can you confirm whether or not saw cutting will be required at these two locations in order to salvage the brick? Please advise.

Answer: Means and methods for removing the brick to allow the round cleanout to be installed in the exterior wall to be determined by Contractor. Core drilling is acceptable at this location.

WHS Snap Report

Snap Report
Westview High School

Beaverton School District

ASBESTOS MATERIALS

The following materials either tested positive or are presumed to be asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled or not listed in this report may contain asbestos and should be tested to verify asbestos content prior to impact, demolition, renovation, etc.

(+) Tested Positive, (M) Mixed Results, (P) Presumed Positive

MATERIALS THAT TESTED NEGATIVE

The following materials tested negative. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact, demolition, renovation, etc.

Westview High School (WHS)	
Material	Location
Covebase/Mastic	Room #5; east wall, southeast corner, brown covebase and beige mastic
Flooring	Room #5; southeast corner, tan wood flooring
Mastic	Room #5; southeast corner, yellow carpet mastic
Flooring	Room #6; west entry at door, tan wood flooring
Mastic	Room #6; west entry at door, yellow carpet mastic
Covebase/Mastic	Room #6; west wall, west entry, brown covebase and beige mastic
Mastic	Upper gym; north stairs, stair tread mastic
Mastic	Upper gym; south stairs, stair tread mastic

ASBESTOS SUMMARY

The following shows asbestos activities and projects. For more detailed information or related documents see the individual activity information in the database.

August 2016 to August 2016 - 23816.104 Phase 1

Activity: Sampling - Location: Gym

March 2017 to March 2017 - 23816.135 Phase 1

Activity: Sampling - Location: Buildings 5 and 6

ACTIVITIES

The following shows historic activities and projects. For more detailed information or related documents see the individual activity information in the database.

Activity Type	Location	Start Date	Related Documents
Water Testing	Westview	09/12/2018	Yes

Activity Type	Location	Start Date	Related Documents
Water Testing	Throughout	10/25/2017	Yes
Sampling	Buildings 5 and 6	03/08/2017	Yes
Water Testing	Throughout	02/15/2017	Yes
Sampling	Gym	08/08/2016	Yes
Water Testing	Throughout	07/02/2016	Yes

Substitution Request #1

TO:

PROJECT: Westview High School Culinary Classroom Renovation

SPECIFIED ITEM:

Section	Page	Paragraph	Description
101100	2 & 2	2.3	VISUAL DISPLAY MARKERBOARD ASSEMBLY (MDD)

PROPOSED SUBSTITUTION:

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of request including identification of applicable data portions. Attached data also includes description of changes to Contract Documents and proposed substitution requires for proper installation.

Undersigned certifies following items, unless modified by attachments, are correct:

1. Proposed substitution does not affect dimensions shown on drawings.
2. Undersigned pays for changes to building design, including engineering design, detailing, and construction costs caused by proposed substitution.
3. Proposed substitution has no adverse effect on other trades, construction schedule, or specified warranty requirements.
4. Maintenance and service parts available locally or readily obtainable for proposed substitution.

Undersigned further certifies function, appearance, and quality of proposed substitution are equivalent or superior to specified item.

Undersigned agrees, if this page is reproduced, terms and conditions for substitutions found in Bidding Documents apply to this proposed substitution.

Submitted by:

Christina Erickson
 Name (Printed or typed)

 Christina Erickson
Digitally signed by Christina Erickson
 DN: c=US, o=United Sales NW, ou=United Sales NW, email=christina@unitedsalesnw.com, cn=Christina Erickson
 Date: 2021.03.25 15:44:28 -0700

Signature
 United Sales NW, LLC

Firm Name
 2600 NE Andresen RD Suite 150

Address
 Vancouver, WA 98661

City, State, Zip
 3/25/21

Date
 3/26/21

Tel: 360-524-6040 Fax: 360-524-6068

General Contractor (if after award of Contract)

For use by A/E

Approved	Approved as noted
Not Approved	Received too late

By

Date

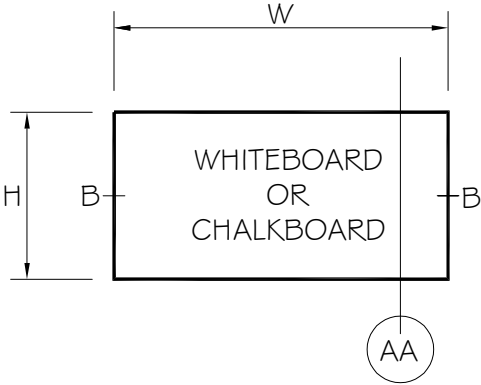
Remarks



Advancement
 of Construction
 Technology

The Construction Specifications Institute
 September 1997
 Northwest Region

ELEVATION:



NOTE:
FOR BOARDS UP TO 8' 0" WIDE 3 CLIPS FOR BOTH TOP + BOTTOM WILL BE PROVIDED, THEY MUST BE FASTENED INTO DRYWALL STUDS OR INTO CONCRETE USING PLASTIC PLUGS.
FOR BOARDS 8' 0" TO 12' 0" THESE REQUIRE 4 L CLIPS FOR BOTH TOP + BOTTOM.

ALUMINUM TRIM:
SERIES 9300 "PRE-FRAMED". FINISH TO BE CLEAR ANODIZED.

DESCRIPTION:
9300 SERIES "PRE-FRAMED" WITH REGULAR TRIM 4 SIDES.

PRODUCT CODE:

SS	01	01	YXX	XXX
SERIES	BOARD	TRIM	SIZE	COLOR

SIZE CODE:

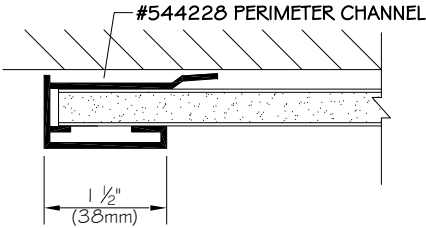
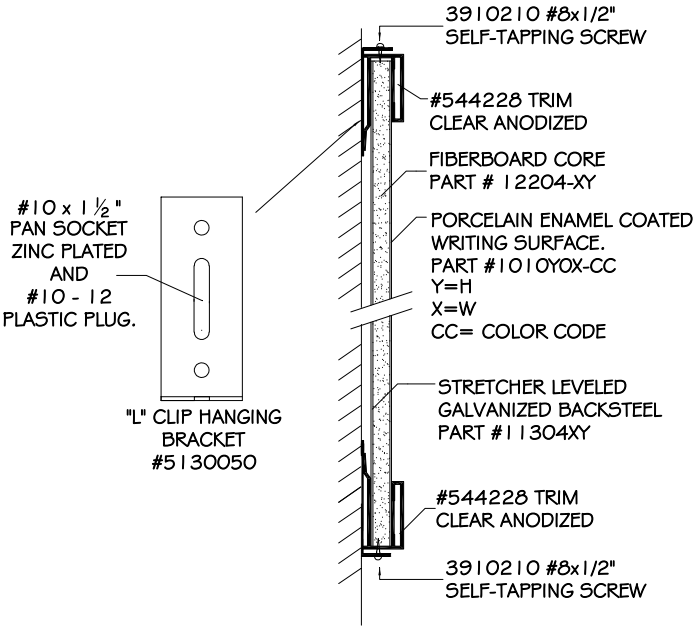
203 - 2'(H) X 3'(W) 504 - 5'(H) X 4'(W)
304 - 3'(H) X 4'(W) 506 - 5'(H) X 6'(W)
404 - 4'(H) X 4'(W) 508 - 5'(H) X 8'(W)
406 - 4'(H) X 6'(W) 510 - 5'(H) X 10'(W)
408 - 4'(H) X 8'(W) 512 - 5'(H) X 12'(W)
410 - 4'(H) X 10'(W)
412 - 4'(H) X 12'(W)

COLOR CODE:

29 - WHITE HIGH GLOSS
29L - WHITE LOW GLOSS
11 - CHALK BLACK
06 - CHALK GREEN

SECTIONS:

SECTION AA



ASI #544228 PERIMETER TRIM

NOTES AND/OR APPROVAL



2210 Dunwin Drive
Mississauga, Ontario L5L 1C7
Phone: (905) 822-4287
www.asi-visualdisplayproducts.com
estimating@asi-visualdisplayproducts.com

PROJECT NAME & LOCATION:

ARCHITECT:

CONTRACTOR:

F:\ACAD\14\FILENAME	PAGE NO. 1 OF 1
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DRAWN BY: J. UGARTE	DATE: 07 NOVEMBER 2019
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PORCELAIN WRITING SURFACE

All writing surfaces supplied and/or supplied and installed by ASI Group Canada Inc. are hereby guaranteed for the Life of the Building.

Guarantee does not include for misuse, neglect, lack of proper care and maintenance, or willful or accidental damage by any party.

This guarantee extends to replacement of defective writing surfaces only and does not include the labour cost for removal or re-installation, shipping costs of defective or replacement materials, applicable federal, provincial or municipal taxes.

ASI Group Canada Inc.



PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Visual display units of the following types:
 - 1. Porcelain enamel writing surfaces markerboards/chalk.
 - 2. Trim Systems

1.2 WARRANTY

- A. Manufacturer's Standard Limited Lifetime Warranty: On porcelain writing surface, for life of building. Under normal usage and maintenance, and when installed in accordance with manufacturer's instructions and recommendations. Guarantee covers replacement of defective material but does not include cost of removal or reinstallation.
- B. When installed in accordance with manufacturer's instructions and recommendations, tackboards are guaranteed for one year against defects in materials and workmanship. Guarantee does not cover, improper handling, any misuse, or any defects caused by vandalism or subsequent abuse. Guarantee covers replacement of defective material but does not include cost of removal or reinstallation.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: ASI Visual Display Products, which is located at: 2210 Dunwin Dr.; Mississauga, ON, Canada L5L 1C7; Tel: 905-822-4287; Fax: 905-607-6885; Email: [requestinfo \(ssender@americanspecialties.com\)](mailto:requestinfo@americanspecialties.com); Web: <http://asi-visualdisplayproducts.com>

2.2 PORCELAIN WRITING SURFACES

- A. Basis of Design: Polyvision e3 Ceramic Steel Writing Surface by ASI Visual Display Products. Porcelain enamel writing surface, manufactured in accordance with Porcelain Enamel Institute's specification. Sandwich type construction of face panel, core and balancing rear sheet.
 - 1. Face Sheet: Ceramic-on-steel, ultra-smooth writing surface, scratch, stain, bacteria and fire resistant.
 - a. Steel core of light gauge covered on both sides with thin enamel coatings. Thickness: 0.014 inches (0.356 mm).
 - b. Face Sheet Color: White-Marker
 - 2. Core: 7/16 inch (11 mm) thick, impregnated sound absorbing fiberboard, laminated under heat and pressure to face panel and rear balancing sheet utilizing adhesives ensuring rupturing of component materials before failure of joint contact surfaces.
 - 3. Rear Balancing Sheet: 0.012 inches (0.31 mm) thick, zinc coated stretcher leveled steel, one piece, sized to span full panel without joints.
 - 4. Laminating Adhesive: Moisture resistant, thermoplastic.
 - 5. Panel Characteristics:
 - a. Overall Thickness: 1/2 inch (13 mm)
 - b. Max Markerboard Panel Size: 160 x 144 inches (524 x 3657 mm).

- c. Perfectly balanced panel designed to float within framing systems.
- d. No adhesive required nor recommended.

2.3 TRIM:

- A. Permanent Trim System: Extruded from aluminum alloy 6063 T5, clear anodized finish, free from extruding draw marks and surface scratches. Full length for each visual display unit.
 - 1. Basis of Design: Trim System 9300 Pre-framed by ASI Visual Display Products.
 - a. Exposed Frame Width: 1-1/2 inches (38 mm).
 - b. Frame Material: Aluminum.
 - c. Frame Finish: Clear anodized.
 - d. Marker Tray: As scheduled or indicated on Drawings
- B. Accessories:
 - 1. Map Rail: 2 inch (51 mm) with Natural Cork Insert and end caps ASI No. 74; As scheduled or indicated on Drawings.
 - a. Flag holders.
 - b. Roller brackets.
 - c. Map hooks.

Substitution Request #2



TO:

PROJECT: Westview High School Culinary Classroom

SPECIFIED ITEM: 5, 8, 16, 18, 26, 30, 34

Section	Page	Paragraph	Description
Div 11 4000		Foodservice Equipment	Page 9-23

PROPOSED SUBSTITUTION:

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of request including identification of applicable data portions. Attached data also includes description of changes to Contract Documents and proposed substitution requires for proper installation.

Undersigned certifies following items, unless modified by attachments, are correct:

1. Proposed substitution does not affect dimensions shown on drawings.
2. Undersigned pays for changes to building design, including engineering design, detailing, and construction costs caused by proposed substitution.
3. Proposed substitution has no adverse effect on other trades, construction schedule, or specified warranty requirements.
4. Maintenance and service parts available locally or readily obtainable for proposed substitution.

Undersigned further certifies function, appearance, and quality of proposed substitution are equivalent or superior to specified item.

Undersigned agrees, if this page is reproduced, terms and conditions for substitutions found in Bidding Documents apply to this proposed substitution.

Submitted by:

Name (Printed or typed)

General Contractor (if after award of Contract)

Signature
Curtis Restaurant Equipment
Firm Name

Address
555 Shelley Street

City, State, Zip
Springfield, OR 97477

Date 3-30-21

Tel: 541-746-7480 Fax: _____

For use by A/E	
Approved	Approved as noted
Not Approved	Received too late
By _____	
Date _____	
Remarks _____	



The Construction Specifications Institute
September 1997
Northwest Region

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SECTION INCLUDES: FOOD SERVICE EQUIPMENT

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 RELATED WORK

- A. Rough-ins and Final Connections: Service lines from rough-in to point of final connections are provided by plumbing and electrical contractors.
- B. Electrical: Wiring, conduit, fuses, breakers, final disconnects, junction boxes, and other required electrical apparatus not built-in or mounted on equipment are provided by electrical contractor.
- C. Plumbing: Controls, regulators, valves, stops, traps, strainers, checks, grease traps, and fittings not mounted on/in equipment are provided by plumbing contractor.
- D. Mechanical: Ductwork from above finished ceiling to building exhaust and supply fans, flue pipes, exhaust and supply fans for hoods, room ventilation, and air supply blowers are provided by mechanical contractor.
- E. Miscellaneous
 - 1. Provides backing plates or blocking in wall or ceiling partitions.
 - 2. Provides fittings secured to structural ceiling to accommodate hangers.
 - 3. Provides the forming of architectural enclosures, floor, wall openings or recesses for equipment.
- F. SYSTEM DESCRIPTION
- G. Delegated Design: Design canopy hoods with fire protection system and seismic restraint of equipment using performance requirements and design criteria indicated, including comprehensive engineering analysis by a qualified professional engineer licensed by the State.
- H. Fabricated Equipment: Constructed to configuration, dimension, detail, and design as shown with materials and workmanship as specified.
- I. Manufactured Equipment: Mass produced and referenced by manufacturer's name and model number.

- J. Each model number includes the code *H011 as a suffix. This code is known as the Specified Identification System. It is not to be removed by the bidders. Its purpose is to identify the Food Service Consultant to the vendors providing equipment in the event it is necessary to communicate questions, clarifications, and comments, from prior to bid award through the final purchase. It is to be used on all correspondence, including fax and e-mail, when communicating with manufacturer representatives and factories.

1.3 DEFINITIONS

- A. Furnish - Supply and deliver to Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
- B. Install (set in place) - Work at Project Site, including actual unloading, unpacking, assembly, erecting, rigging, placing, anchoring, applying, finishing, curing, protecting, cleaning, and similar operations, ready for final utility connections by other Sections as appropriate.
- C. Coordinate – Relay required information requested by other trades to ensure they are able to correctly perform their work related to the food service or laundry equipment installation.
- D. Provide - Furnish and install complete, ready for intended use.
- E. Contractor - All references to the Contractor in this Section 114000 shall refer to the Kitchen Equipment Contractor. Reference to any other Contractor shall be specific, such as General Contractor, Plumbing Contractor, Electrical Contractor, Architect, designated, etc.

1.4 LAWS, ORDINANCES AND STANDARDS

- A. STANDARDS: Except as otherwise indicated, comply with the following standards as applicable to the manufacture, fabrication, and installation of the work of this Section:
1. Air Conditioning and Refrigeration Institute (ARI): Comply with the applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components, and installation.
 2. American Gas Association (AGA): Comply with AGA standards for gas heated equipment and provide equipment with the AGA seal. Automatic safety pilots shall be provided on all equipment, where available. (Canadian Gas Association or alternate testing lab's seals may be accepted if acceptable to local code jurisdictions.)
 3. American National Standards Institute (ANSI): Comply with ANSI Z21-Series standards for gas-burning equipment and provide labels indicating name of testing agency.
 4. American National Standards Institute (ANSI): Comply with ANSI B57.1 for compressed gas cylinder connections and with applicable standards of the Compressed Gas Association for compressed gas piping.
 5. American National Standards Institute (ANSI): Comply with ANSI A40.4 and A40.6 for water connection air gaps and vacuum breakers.
 6. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE): Comply with the applicable regulations and the latest edition of standards for remote refrigeration system(s), components, and installation.

7. American Society of Mechanical Engineers (ASME): Comply with ASME Boiler Code requirements for steam generating and steam heated equipment and provide ASME inspection, stamp, and registration with National Board.
8. American Society for Testing and Materials (ASTM): Comply with ASTM C1036 for flat glass.
9. American Society for Testing and Materials (ASTM): Comply with ASTM C1048 for heat-treated flat glass – Kind HS, Kind FT coated and uncoated glass.
10. American Welding Society (AWS): Comply with AWS D1.1 structural welding code.
11. National Electric Code (NEC): Comply with NFPA Volume 5 for electrical wiring and devices included with food service equipment, ANSI C2 and C73, and applicable NEMA and NECA standards.
12. National Electrical Manufacturers Association (NEMA): Comply with NEMA LD3 for high-pressure decorative laminates.
13. National Fire Protection Association (NFPA): Comply with the applicable sections of the NFPA for exhaust hood, ventilators, duct and fan materials, hoods fire suppression systems, construction and installation, as well as local codes and standards.
14. National Sanitation Foundation (NSF): Comply with the latest Standards and Revisions established by NSF for equipment and installation. Provide NSF Seal of Approval on each applicable manufactured item and on items of custom fabricated work. (UL Sanitation approval and seal may be accepted if acceptable to local code jurisdictions.)
15. Sheet Metal and Air Conditioning National Association (SMACNA): Comply with the latest edition of SMACNA guidelines for seismic restraint of kitchen equipment and applicable local regulatory agencies requirements.
16. Underwriters Laboratories (UL): Provide either UL labeled products for electrical components and assemblies or, where no labeling service is available, "recognized markings" to indicate listing in the UL "Recognized Component Index". (Canadian Standards Association or alternate testing lab's seals may be accepted if acceptable to local code jurisdictions.)
17. UL 300 Standard: Wet chemical fire suppression systems for exhaust hoods/ventilators shall comply with these requirements.
18. American with Disabilities Act (ADA): Comply with requirements as applicable to this Project.
19. All refrigerants used for any purpose shall comply with the 1995 requirements of the Montreal Protocol Agreement and subsequent revisions and amendments. No CFC refrigerants shall be allowed on this Project.
20. Comply with all applicable local codes, standards and regulations, and any special local conditions (example only: City of Los Angeles Testing Lab requirements or seismic standards compliance).
21. Confirm all drawings, specifications, and project documentation meet all federal, state, and local codes and regulations.

1.5 CONTRACTOR QUALIFICATIONS

- A. In addition to requirements of Related Sections 1.02, submit evidence of compliance with the following qualifications and conditions:
 1. Five (5) years minimum continuous operation under the same company name and ownership.

2. Evidence of Company's financial stability and financial ability to complete this Project without endangering that stability.
3. List a minimum of comparable size and scope projects completed in the last five (5) years with Owner's contact name and telephone number.
4. Have manufacturer's authorization to purchase, distribute, and install all items specified with this Project.
5. Maintain a staff or have access to personnel with a minimum of five (5) years' experience in the installation of comparable size and scope projects, and meeting NSF standards and requirements. (UL Sanitation standards and requirements may be accepted if acceptable to local code jurisdictions.)
6. Maintain or have access to a fabrication shop meeting NSF standards and labeling requirements. (UL Sanitation approval and seal may be accepted if acceptable to local code jurisdictions.) If other than the Contractor's own fabrication shop, they shall have five (5) years minimum experience in the fabrication of comparable size, scope, and level of quality projects. The Contractor shall submit their company name and credentials to the Architect, who shall have the right of approval or disapproval.
7. Maintain a staff or have access to personnel experienced in the preparation of professional style shop drawings and submittals.
8. Maintain or have access to manufacturer's authorized service personnel together with readily available stock of repair and replacement parts.
9. Any sub-Contractor employed by Contractor for this Project shall comply with the same qualification requirements.

1.6 SUBSTITUTIONS

- A. Refer to Division 1 for Substitution Request requirements.

1.7 APPROVED SUBSTITUTIONS AND/OR LISTED ALTERNATES

- A. Substitutions approved as noted in article 1.07 and/or any Listed Alternate Manufacturers listed in these Itemized Specifications or added by Addendum may be utilized in lieu of the primary specified manufacturer with the following conditions and understanding:
 1. The Project Documents are designed and engineered using the primary specified manufacturer and model. The Contractor shall assume total responsibility for any deviations required due to the utilization of a substitution/alternate manufacturer or model including, but not limited to, fitting alternates into the available space, providing directions for required changes, and assuming any and all associated costs for utility, building, food service design, architectural, or engineering changes directly or indirectly related to the substitution.
 2. The Contractor shall be responsible for supplying the model, which is equal to the primary specified model in regard to general function, features, options, sizes, accessories, utility requirements, finish, operation, and listing approvals. If the Owner or their appointed representative determines at any time during the construction and installation, prior to the final acceptance of the Project, that the substitution/alternate model submitted is not equal to the primary specified model, the Contractor shall assume all associated cost and implications required to replace the model submitted with the correct model.

3. The bid proposal shall clearly state any substitutions/alternates which will be utilized, including the manufacturer and model number. The proposal shall also include a data sheet for each substitution/alternate with all deviations between the primary specified manufacturer and the substitution/alternate manufacturer itemized and listed on the data sheet. The manufacturers' cut sheets are not acceptable as a substitute for the data sheet. Complex alternates, such as utility distribution systems, exhaust hoods, ventilators, etc., shall include a shop drawing specific to the Project.
4. Inclusion of an alternate manufacturer in the Itemized Specifications is not intended to indicate that there is an equal alternate unit to match every primary specified unit. It shall be the responsibility of the Contractor to ensure that the alternate unit submitted matches the primary specified unit and meets the other conditions, as stated above.
5. Manufacturers not approved as substitutions or listed as a Listed Alternate will not be permitted unless submitted for prior approval, as described above and in the General and Supplementary Conditions and applicable Division-1 Specifications Sections.
6. Submittal of a substitution/alternate manufacturer or model shall indicate agreement to the above stated conditions. Solely at the Owner's discretion, failure to comply with any of these conditions or to supply complete and correct data information shall result in the Contractor being required to provide the primary specified manufacturer at no additional cost to the Owner or to adjust the Contract cost.

1.8 DISCREPANCIES

- A. Where discrepancies are discovered between the drawings and the specifications regarding quality or quantity, the higher quality or the greater quantity shall be included in the Bid Proposal. The Contractor shall notify the Architect, in writing, of any discrepancies discovered and await clarification prior to proceeding with the items or areas in question.

1.9 SUBMITTALS

- A. The Contractor shall review all submittals for basic compliance with the Contract Documents and correct as required prior to submitting to the Design Team (Architects/Engineers/Consultants/Owner) for review. Failure to comply with this requirement, the submission of submittal(s) which are significantly inconsistent with the Contract Documents, or inconsistencies that are discovered during review by a Design Team member shall be justification for reimbursement by the Contractor to the Design Team member's company for the "lost" time or for the time required for a second review.
- B. Rough-In Drawings
 1. Submit electronic PDF file for approval. After approval, reproduce and supply the required number of distribution prints for record and construction purposes.
 2. Submit 1/4 inch (1:50) scale rough-in drawings for approval. These drawings shall be dimensioned from grid lines showing location of ducts, stubs, floor and wall sleeves for ventilation, plumbing, steam, electrical, refrigeration lines, beverage lines, concrete base and curb dimensions as required for equipment so supported.
 3. Site-verify mechanical, electrical and ventilating rough-in and sleeve locations.
 4. The Contractor shall be responsible for the accuracy of the information on their submittals.

5. In the event rough-ins have been accomplished before the award of this contract, the Contractor shall check the existing facility and make adjustments to their equipment to suit building conditions and utilities, where possible. If not possible, the Contractor shall so state in a letter to the Owner and Architect with reasons and an alternate method and pricing.

C. Shop Drawings

1. Submit electronic PDF file for approval. After approval, reproduce and supply the required number of distribution prints for record and construction purposes.
2. Submit shop drawings for items of custom fabrication included in this contract. Shop drawings shall be submitted at 3/4 inch (1:20) and/or 1-1/2 inch (1:10) scale and shall show dimensions, materials, details of construction, features and options, installation and relation of adjoining work requiring cutting or close fitting. Shop drawings shall also indicate reinforcements, anchorage and related work required for the complete installation of fixtures.
3. Before proceeding with the fabrication of any item, the Kitchen Equipment Contractor (KEC) shall be responsible for verifying and coordinating all dimensions and details with site dimensions and conditions.

D. Product Data Submittal Manuals

1. Submit electronic PDF file of Product Data Submittal Manuals with a cover sheet and detailed information on every item included in this Section for approval. Detailed information shall include, but not be limited to, item number, description, quantity, model numbers, options and accessories provided, exact utility requirements, manufacturer's cut-sheets, reference to specific shop drawings, etc. Distribute one additional copy of installation and start-up instructions to the Installer. Mark each data sheet with the applicable project equipment item number. Each data sheet shall include NEMA plug and receptacle configuration for applicable items, where applicable. Every cover sheet and associated detailed submittal shall provide sufficient and complete information to verify that the Contractor is providing each item in compliance with the Contract documents.
2. Architect review of drawings, shop details, product data brochures, and service and parts manuals are for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the Contractor from compliance with the contract documents or departures there from. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing their work in a safe, satisfactory, and professional manner.

1.10 OPERATION AND MAINTENANCE DATA MANUALS

- A. Operation and Maintenance Manuals (Service and Parts Manuals): Electronic manuals shall be furnished for items of standard manufacture on/or before the date of the first event to occur of the following: demo/start-up, start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner. Manuals shall be in alphabetical order according to manufacturer, including item numbers and utility options provided for the equipment installed.

1. Installing company's name, address, telephone number, and date of completed installation.
 2. Serial numbers of principal pieces of equipment.
 3. Part numbers of all replaceable items.
 4. Lubrication data and belt sizes.
 5. Electrical characteristics including data for motors and heaters.
- B. Service Agency List: Submit a complete list of local service agencies with the service and parts manuals for included manufacturers, complete with telephone numbers for all buy-out equipment installed.
- C. Provide video tapes for maintenance, training, operation, etc. where available from the manufacturer.

1.11 AS-BUILT/RECORD DOCUMENTS

- A. Maintain one record set of Food service Equipment Plans with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation. Provide an "as-built" set in reproducible transparency form and electronic computer disk form.
- B. Provide one (1) final set of Product Data Submittal Manuals with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation as a specification record set.
- C. These documents shall be provided on/or before the date of the first event to occur of the following: demo/start-up, start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner.
- D. Provide two (2) final complete set of Submittals to be retained by Architect as a Record Set.

1.12 SCHEDULE

- A. General: Time is of the essence in this agreement. Acceptance constitutes a guarantee that the Contractor can and will obtain materials, equipment, and manpower to permit overall completion of the entire building project on schedule upon notice to proceed. The Contractor shall coordinate their work with the progress schedule, as prepared and updated periodically by the General Contractor or Construction Manager.
- B. The Contractor shall notify the Food Service Consultant and the Architect in writing of anticipated delays not within the realm of control of the Contractor immediately upon the Contractor's realization that delays are imminent.
- C. The Contractor will not be granted relief for failure to meet schedules or failure of manufacturers to meet promised delivery dates unless the Contractor can establish, in writing, that orders were received by the manufacturer with reasonable lead times.
- D. The Contractor shall pay extra charges resulting from special handling or air shipment in order to meet the schedule if insufficient time was allowed in placing factory orders.

1.13 PRODUCT HANDLING

- A. Delivery of Materials: Deliver materials (except bulk materials) in manufacturer's containers fully identified with manufacturer's name, trade name, type, class, grade, size, color, power requirement, if any, and item number.
- B. Storage of Materials, Equipment and Fixtures: Contractor is responsible for receiving and warehousing of equipment and fixtures until ready for installation. The Contractor will store materials, equipment, and fixtures in sealed containers. They shall be stored off the ground and under cover, protected from damage.
- C. Handling Materials and Equipment: The Contractor will verify and coordinate conditions at the building site, particularly door and/or wall openings and passages to assure access for all equipment. Pieces too bulky for existing facilities shall be hoisted or otherwise handled with apparatus as required. All special handling equipment charges shall be arranged for and paid for by the Contractor .

1.14 PRODUCT PROTECTION

- A. The Contractor is responsible to protect their equipment against theft or damage during the progress of the project until final acceptance by the Owner. Items delivered to the job site at the Owner's or Contract Manager's request before the site is ready for installation should be signed for as approved by the Owner or Contract Manager.
- B. The Contractor will use all reasonable means to protect the materials of this Section before, during, and after installation and to protect the associated work and materials of the other trades.
- C. Pre-fabricated walk-in boxes, on-site and installed in advance of the rest of the equipment are not to be used for general storage by other trades and should be locked before leaving the site. Damage and theft resulting from the failure to secure boxes shall be repaired or replaced at the Contractor 's own expense. The Contractor shall be available, as needed, to open and secure walk-in boxes for the other trades to perform their work related to these walk-in boxes, within the other trades' schedules as not to delay their work.
- D. Contractor will verify if the flooring is to be acid washed. In the event of this type of cleansing, any equipment constructed of stainless steel shall not be delivered until a minimum of 24 hours after the final cleansing is completed.

1.15 WARRANTY

- A. Work shall be guaranteed against defects for one (1) year from the date of operation of the equipment. The Contractor will provide a written warranty of each component to include work in this Section to cover all testing and re-testing as may become necessary for one year past the Contract final acceptance date. Any equipment, system, or element failing to perform as directed in this Section shall be repaired or replaced at no cost to the Owner (including labor and transportation), excluding replacement cost of damaged components or work caused by misuse of the equipment.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. Equipment schedule: Refer to schedule on Food service Drawings and Part 5 Itemized Specifications for equipment included in this Section.

2.2 MATERIALS

A. Metals

1. Stainless Steel: AISI Type 302/304, hardest workable temper, and No.4 directional polish. Standard gauges are noted in these specifications under Heading 2.04; Section B.1.
2. Galvanized Steel Sheet: ASTM A526, except ASTM A527 for extensive forming; ASTM A525, G90 zinc coating, chemical treatment.

Note: Where painted finish is indicated, provide mill phosphatized treatment in lieu of chemical treatment.

3. Steel Sheet: ASTM A569 hot-rolled carbon steel.
4. Galvanized Steel Pipe: ASTM A53 or ASTM A120, welded or seamless, schedule 40, galvanized.
5. Steel Structural Members: Hot rolled or cold formed, carbon steel unless stainless steel is indicated.

Note: Galvanized Finish (G.I.): ASTM A123 hot-dipped zinc coating, applied after fabrication.

6. Aluminum: ASTM B209B221 sheet, plate and extrusions (as indicated), alloy, temper and finish as determined by manufacture / fabricator, except 0.40-mil natural anodized finish on exposed work unless another finish is indicated.
- B. Hardwood Work Surfaces: Laminated edge grained hard maple (*Acer saccharum*), NHLA First Grade with knots, holes and other blemishes culled out, kiln dried at 8 percent or less moisture, waterproof glue, machined, sanded, and finished with NSF approved oil-sealer.
- C. Joint Materials
1. Sealants: 1-part or 2-part, polyurethane or silicone based, liquid elastomeric sealant, non-solvent release type, Shore A hardness of 30, except 45 if subject to traffic. Sealants shall be NSF Listed for use in food zones. Installation shall comply with applicable requirements of NSF Standards.
 2. Backer Rod: 3/8 inch or larger joints shall be polyurethane rod stock, larger than joint width.
 3. Gaskets: Solid or hollow (but not cellular) neoprene or polyvinyl chloride, light grey, minimum of 40 Shore A hardness, self-adhesive or prepared for either adhesive application or mechanical anchorage.

D. Paint and Coatings

1. Provide the types of painting and coating materials which, after drying or curing, are suitable for use in conjunction with food service, durable, non-toxic, non-dusting, non-flaking, mildew resistant, and comply with governing regulations for food service.
2. Galvanize Repair Paint: MIL-P-21035.
3. Sound Deadener: NSF listed sound deaden material such as latex sound deadener for internal surfaces of metal work and underside of metal counters and tables between work top and underbracing.
4. Pretreatment: SSPC-PT2 or PT3, of FS TT-C490.
5. Primer Coating for Metal: FS TT-P-86, type suitable for baking, where indicated.
6. Enamel for Metal: Synthetic type, FA TT-P-491, type suitable for baking, where indicated.

2.3 FABRICATED PRODUCTS

A. Hardware

1. General: Manufacturer's standard, but not less than ANSI 156.9 Type 2 (Institutional), satin finish stainless steel or dull chrome finish on brass, bronze, or steel.
2. Hinged Door Hardware: Hinged doors shall be mounted with heavy duty NSF approved hinges with Component Hardware Group, Model No. P62-1010 pulls, or equal. Catches shall be heavy-duty magnetic type, except as otherwise indicated.
3. Drawer Hardware: Slides to be 200 pounds minimum capacity per pair, 300 series stainless steel, full extension, side-mounting, self-closing type, with stainless steel ball bearings and positive stops, Component Hardware Group Series S52, or equal. Pulls shall be Component Hardware Group, Model No. P62-1 012, or equal.
4. Sliding Door Hardware: Sliding doors shall be mounted on large, quiet ball bearing rollers in 14-gauge (2.0mm) stainless steel overhead tracks and be removable without the use of tools. Bottom of cabinet shall have stainless steel guide-pins and not channel tracks for doors.
5. All hardware shall be identified with manufacturer's name and number so that broken or worn parts may be replaced.

B. Casters

1. Type and size as recommended by caster manufacturer, NSF approved for the type and weight of equipment supported, but not less than 5 inch (127mm) diameter heavy-duty, ball bearing, solid or disc wheel with non-marking grease proof rubber, neoprene or polyurethane tire, unless otherwise specified. Minimum width of tread shall be 1-3/16 inch (30mm). Minimum capacity per caster shall be 250 pound (113.4kg), unless otherwise noted in itemized specifications.
2. Provide solid material wheels with stainless steel rotating wheel guard.
3. To be sanitary, provide sealed wheel and swivel bearings and polished plated finish per NSF.
4. Unless otherwise indicated, equip each item with two (2) swivel-type casters and two (2) fixed casters. Provide foot brakes on two (2) casters on opposite front corners of equipment.

5. Unless equipment item is equipped with another form of all-around protective bumper, provide circular rotating bumper above each caster, 5 inch (127mm) diameter tire of light grey synthetic rubber (hollow or closed-cell) on cadmium-plated disc.

C. Plumbing Fittings, Trim and Accessories

1. General: Where exposed or semi-exposed, provide bright chrome plated brass or polished stainless steel units. Provide copper or brass where not exposed.
2. Vacuum Breakers: Provide with food service equipment as listed in the itemized specifications.
3. Water Outlets: At sinks and at other locations where water is supplied (by manual, automatic or remote control), furnish commercial quality faucets, valves, dispensers or fill devices of the type and size indicated and as required to operate as indicated.
4. Waste Fittings: Except as otherwise indicated, furnish 2 inch (50mm) remote-lever waste valve and 3-1/2 inch (89mm) strainer basket.

D. Electrical Materials

1. General: Provide standard materials, devices and components as recommended by the manufacturer or fabricator, selected and installed in accordance with NEMA standards and recommendations and as required for safe and efficient use and operation of the food service equipment without objectionable noise, vibration and sanitation problems.
2. Before ordering equipment, confirm pertinent electrical requirements with the serving electrical utility, such as actual voltages available, number of phases and number of wires in the system.
3. Wire electrical work for fabricated equipment completely to a junction or pull box which is wholly accessible and mounted on the equipment. Wiring shall be labeled for outlet or item served. Verify local requirements for UL Listing on complete assembly and provide if required.
4. Components shall bear the UL label or be approved by the prevailing authority.
5. Controls and Signals: Provide recognized commercial grade signals, on-off push buttons or switches, and other speed and temperature controls as required for operation, complete with pilot lights and permanent signs and graphics to assist the user of each item. Provide stainless steel cover plates at control and signal electrical boxes. Locate controls and switches out of heat zones, in easily accessible locations that preclude accidental contact by employees.
6. Internal Wiring of Fixtures and Equipment
 - a. The Contractor shall be responsible for internal wiring of electrical devices built into or forming an integral part of fabricated equipment items. Wiring will be in metal conduit, connected to an accessible pull-box or j-box, and tagged for intended use. Refer to Section 26 Specifications for color coding of wiring.
 - b. Each standard item shipped in sections shall be properly connected internally and verified by the Contractor .
 - c. Furnish dish washers and conveyors internally wired to junction box or distribution panel as specified, including push button switches, motors, immersion heaters, solenoids, etc.

- d. Exposed flexible steel conduit on kitchen equipment shall be neoprene jacketed Seal -Tite conduit equal to Anaconda type "UA". UL approved, complete with approved liquid tight connectors on each end, and designed to provide electrical grounding continuity.
 - e. Exposed electrical conduit used in kitchen wet area applications, except for flexible connections, shall be rigid galvanized steel. Thin wall conduit (EMT) shall not be permitted for wet areas. Exposed outlet boxes shall be liquid tight type, with threaded hubs.
- 7. Convenience and Power Outlets
 - a. Make cutouts and install appropriate boxes or outlets in fabricated fixtures, complete with wiring, conduit, outlet and stainless steel cover plate.
 - b. Outlets and plugs shall conform to NEMA standards.
 - c. Electrical outlets and devices shall be first quality "Specification Grade".
 - d. Furnish GFCI outlets where adjacent to sink compartments, as per the National Electrical Code.
- 8. Plugs and Cords: Where cords and plugs are provided, they shall comply with National Electrical Manufacturer's Association (NEMA) requirements. Indicate NEMA configuration for each applicable item.
- 9. Heating Equipment
 - a. Install electric and heating equipment as to be readily cleanable or removable for cleaning.
 - b. Steam heated custom fabricated equipment shall be a self-contained assembly, complete with control valves located in an accessible position.
- 10. Motors: Totally enclosed type, except drip-proof type where not exposed to a dust or moisture condition; ball bearings, except sleeve bearings on small timing motors; windings impregnated to resist moisture; horse-power and duty-cycle ratings as required for the service indicated.
- 11. Power Characteristics: Refer to Division 26 specifications for project power characteristics. Also, refer to individual equipment requirements, for loads and ratings.

2.4 FABRICATION OF METAL WORK

A. General Fabrication Requirements

- 1. Remove burrs from sheared edges of metalwork, ease the corners and smooth to eliminate cutting hazard. Bend sheets of metal at not less than the minimum radius required to avoid grain separation in the metal. Maintain flat, smooth surfaces without damage to finish.
- 2. Reinforce metal at locations of hardware, anchorages, and accessory attachments wherever metal is less than 14 gauge (2.0mm) or requires mortised application. Conceal reinforcements to the greatest extent possible. Weld in place, on concealed faces.

3. Exposed screws or bolt heads, rivets, and butt joints made by riveting straps under seams and then filled with solder will not be accepted. Where fasteners are permitted, provide Phillips head, flat or oval head machine screws. Cap threads with acorn nuts, unless fully concealed in inaccessible construction, and provide nuts and lock washers unless metal for tapping is at least 12 gauge (2.5mm). Match fastener head finish with finish of metal fastened.
4. Where components of fabricated metal work are indicated to be galvanized and involve welding or machining of metal heavier than 16 gauge (1.6mm), complete the fabrication and provide hot-dip galvanizing of each component, after fabrication, to the greatest extent possible (depending upon available dip-tank sizes). Comply with ASTM A123.
5. Welding and Soldering
 - a. Materials 18-gauge (1.27mm), or heavier, shall be welded.
 - b. Seams and joints shall be shop welded or soldered as the nature of the material may require.
 - c. Welds must be ground smooth and polished to match original finish.
 - d. Where galvanizing has been burned off, clean and touch up the weld with high grade aluminum paint.
6. Provide removable panels for access to mechanical and electrical service connections, which are concealed behind or within food service equipment, but only where access is not possible and not indicated through other work.
7. Closures: Where ends of fixtures, splash backs, shelves, etc., are open, fill by forming the metal or welding sections, if necessary, to close entire opening flush to walls or adjoining fixtures.
8. Rolled Edges: Rolled edges shall be as detailed, with corners bull nose, ground and polished.
9. Coved Corners: Stainless steel food service equipment shall have 1/2 inch (13mm) or larger radius coves in horizontal and vertical corners, and intersections, per NSF standards.

B. Metal and Gauges

1. Except as otherwise indicated, fabricate exposed metalwork from stainless steel. Fabricate the following components from the gauge of metal indicated and other components from not less than 20 gauge (0.8mm) metal:
 - a. Table and counter tops: 14 gauge.
 - b. Sinks and drain boards: 14 gauge.
 - c. Shelves: 16 gauge.
 - d. Front drawer and door panels: 18 gauge (double pan construction).
 - e. Single pan doors and drawer fronts: 16 gauge.
 - f. Enclosed base cabinets: 18 gauge.
 - g. Enclosed wall cabinets: 18 gauge.
 - h. Exhaust hoods and ventilators: 18 gauge.
 - i. Pan-type insets and trays: 16 gauge.
 - j. Removable covers and panels: 18 gauge.
 - k. Skirts and enclosure panels: 18 gauge.
 - l. Closure and trim strips over 4" wide: 18 gauge.
 - m. Hardware reinforcement: 12 gauge.

- n. Gusset plates: 10 gauge.
- o. Custom channel bases: 14 gauge.

C. Work-Surface Fabrication

1. Fabricate metal work surfaces by forming and welding to provide seamless construction using welding rods matching sheet metal, grinding and polishing. Where necessary for disassembly, provide waterproof gasketed draw-type joints with concealed bolting.
2. Reinforce work surfaces 30 inches on center both ways with galvanized or stainless steel concealed structural members. Reinforce edges, which are not self-reinforced, by formed edges.

D. Metal Top Construction

1. Metal tops shall be one-piece welded construction, including field joints. Secure to a full perimeter galvanized steel channel frame cross-braced not farther than 2'-6" (760mm) on center. Fasten top with stud bolts or tack welds. If hat sections are used in lieu of channels, close ends.
2. Use properly designed draw fastening, trim strip, or commercial joint material to suit requirement, only if specified.

E. Structural Framing

1. Except as otherwise indicated, provide framing of minimum 1 inch (25mm) pipe-size round pipe or tube members with mitered and welded joints and gusset plates ground smooth. Provide 14 gauge (2.0mm) stainless steel tube for exposed framing, and galvanized steel pipe for concealed framing.
2. Where indicated, flange rear and end edges up to form splashes integrally with top, with vertical and horizontal corners coved of not less than 1/4 inch (6mm) radius, die formed. Turn back splashes 1 inch to wall across top and ends with rounded edge on break, unless otherwise specified.
3. For die-crimped edges, use inverted "V" 1/2 inch (13mm) deep inside and 2 inch (38mm) deep on outside, unless otherwise shown. For straight down flanges, make 1- 3/4 inch (45mm) deep on outside. For bull nose edges, roll down 1-3/4 inch (45mm).
4. Edges: die-formed, integral with top. For rounded corners, form to 1 inch radius, weld, and polish to original finish.

F. Field Joints: For any field joint required because of size of fixture, use butt-joints, reinforce on underside with angles of same material, bolt together with non-corrosive bolts and nuts, field weld, grind and polish.

G. Pipe Bases: Construct pipe bases of 1-5/8 inch (41mm) diameter 18 gauge (1.2mm) stainless steel tubing. Fit legs with polished stainless steel sanitary adjustable bullet feet to provide for adjustment of approximately 1-1/2 inch (38mm), without exposing threads. Space legs to provide ample support for tops, precluding any possibility of buckling or sagging and in no case more than 6'-0" centers.

H. Legs and Cross-rails

1. Equipment legs and cross rails shall be 1-5/8 inch (41mm), 16-gauge (1.59mm) stainless steel tubing.
2. Welds at cross rails shall be continuous and ground smooth. Please note: tack welds are not acceptable.
3. Camber bottom of legs inward and fit with a stainless steel bullet-type foot with not less than 2 inch (50mm) adjustment. Flanged feet with bolt holes may be required dependent on design applications. Provide proper type feet in compliance with local codes. Use stainless steel in all applications.
4. Peg free standing legs to floor with 1/4 inch (6mm) stainless steel rod.
5. Components
 - a. Stainless Steel Gusset: Stainless steel exterior to fit 1-5/8 inch (41mm) tubing, with Allen screw for fastening and adjustment. Not less than 3 inches (76mm) diameter at top and 3-3/4 inch (95mm) long. Outer shell 16-gauge (1.6mm) stainless steel, reinforced with 12-gauge (2.5mm) mild steel insert welded interior shell, or approved equal.
 - b. Stainless Steel Low Counter Legs: Stainless steel exterior 5-3/4 inch (146mm) minimum, 7 inch (1.78mm) maximum length with stainless steel 3- 1/2 inch (89mm) square plate with four counter-sunk holes, welded to top for fastening.
 - c. Stainless Steel Adjustable Foot: Stainless steel 1-1/2 inch (38mm) diameter tapered at bottom to 1 inch (25mm) diameter, fitted with threaded cold rolled rod for minimum 1-1/2 inch (38mm) diameter x 3/4 inch (19mm) threaded bushing plug welded to legs, or approved equal. Push-in foot not acceptable.
6. Fasten legs to equipment with gussets, as follows:
 - a. Sinks: Reinforced with bushings and set screw.
 - b. Metal Top Tables and Dish Tables: Welded to galvanized steel channels, 14-gauge (1.98mm) or heavier, anchored to top with screws through slotted holes.
 - c. Wood Top Tables: Welded to stainless steel channels, 14-gauge (1.98mm) or heavier, anchored to top with screws through slotted holes.

I. Shelves

1. Construct solid shelves under pipe base tables of 16 gauge stainless steel, with 1-1/2 inch turned down and under edges on exposed sides, and 2 inch turn up against walls or equipment. Fully weld to pipe legs.
2. In fixtures with enclosed bases, turn up shelves on back and sides with 1/4 inch (6mm) (minimum) radius and feather slightly to ensure a tight fit to enclosure panels.

J. Sinks

1. Construct sinks of 14 gauge stainless steel with No.4 finish inside and outside.
2. Form back, bottom and front of one piece, with ends and partitions welded into place. Partitions: double thickness, 1 inch minimum space between walls. Multiple compartments shall be continuous on the exterior, without applied facing strips or panels.
3. Cove interior vertical and horizontal corners of each tub not less than 1/4 inch radius, die formed. Outer ends of drain boards to have roll rim risers not less than 3 inches high.

4. Drill faucet holes in splashes 2-1/2 inches below top edge. Verify center spacing with faucet specified.
5. Sink insets shall be deep drawn of 16-gauge (1.59mm), or heavier, polished stainless steel. Weld into sink drain boards with 1-1/2 inch x 1-1/2 inch x 14 gauge stainless steel angle brackets, securely welded to sinks and galvanized cross angles spot welded to underside of drain boards to form an integral part of the installation.
6. The bottom of each compartment shall be creased such as to ensure complete drainage to waste opening. Slope bottom of sink bowls toward outlet.

K. Drains, Wastes and Faucets

1. Furnish and install Chicago Faucets stainless steel rotary drain assembly with connected overflow assembly as specified – see itemized 2.8. Waste connection shall have 2 inch (50mm) external thread size, with 1-1/2 inch (38mm) internal thread size.
2. Rotary Handle: Of sufficient length to extend to front edge of sink. No riveting, screws or soldering permitted to fit drains to sinks, with all parts of drains easily removable for servicing and replacement. Rotary handle bracket to be provided as part of the sink fabrication.
3. Water pans for steam tables shall be fitted with 1 inch (25mm) drains with chrome-plated brass stand pipes.
4. All faucets furnished with equipment included in this Section shall be lead-free and comply with NSF Standard #61, Section #9, such as manufactured by Chicago Faucets. Where the itemized specifications list a faucet by manufacturer and model, the Contractor shall verify that the listed faucet complies with this requirement.
5. If the listed faucet does not comply, the Contractor shall submit similar model which does comply from the same manufacturer where available or from one of the above manufacturers.

L. Workmanship

1. Best quality in the trade. Field verify dimensions before fabricating, conform all items to dimensions of building, neatly fit around pipes, offsets and other obstructions.
2. Fabricate only in accordance with approved shop drawings, showing pipes, obstructions to be built around, and location of utilities and services.

M. Enclosures

1. Provide enclosures, including panels, housings, and skirts for service lines, operating components and mechanical and electrical devices associated with the food service equipment, except as specifically indicated to be "open".
2. Where equipment is exposed to customer view, enclose of service lines, operating components, and mechanical and electrical devices.

N. Doors

1. Metal doors shall be double-cased stainless steel. Outer pans shall be 18-gauge (1.27mm) stainless steel with corners welded, ground smooth and polished. Inner pan shall be 20-gauge (.95mm) stainless steel fitted tightly into outer pan with a sound-deadening material such as Celotex or Styrofoam used as a core. The two pans shall be tack welded together and joints solder filled. Doors shall finish approximately 3/4 inch (19mm) thick and be fitted with flush recessed type stainless steel door pulls.
2. Wood doors shall be fabricated as detailed. If Formica or other plastic surfaces are used, sides and backs must be laminated.
3. Hinged doors shall be mounted on heavy-duty NSF approved hinges, or as noted on plans or specifications.

O. Drawer Assemblies

1. Assemblies shall consist of removable drawer body mounted in a ball bearing slide assembly with fully enclosed housing.
2. Slide assembly consists of one pair of 200 pound stainless steel roller bearing extension slides, with side and back enclosure panels, front spacer angle, two drawer carrier angles secured to slides and stainless steel front.
3. Drawer bodies for general storage are to be 20 inches x 20 inches (508mm x 508mm), with 18 gauge stainless steel containers.
4. Drawers intended to hold food products shall be removable type with 12 x 20 (305mm x 508mm) stainless steel food pans in a stainless steel assembly.
5. Drawer fronts are double cased, 3/4 inch (19mm) thick with 18 gauge (1.27mm) stainless steel welded and polished front pan. Steel back pan is tightly fitted and tack welded. Sound deaden with rigid insulation material.
6. Provide drawers with replaceable soft neoprene bumpers or for refrigerated drawers, a full perimeter soft gasket.

P. Closed Base: Where casework is indicated to be located on a raised-floor base, prepare casework for support without legs and for anchorage and sealant application, as required for a completely enclosed and concealed base.

Q. Support from Floor: Equip floor supported mobile units with casters and equip items indicated as roll-out units with manufacturer's standard one-directional rollers. Otherwise, and except for closed-base units, provide pipe or tube legs with adjustable bullet-design feet for floor supported items of fabricated metalwork. Provide 1-1/2 inch adjustment of feet (concealed threading).

R. Shop Painting

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

S. Sound Deadening

1. Sound deaden underside of metal tops, drain boards, under shelves, cabinet interior shelves, etc., above the underbracing/reinforcing/framing only.

2.5 FILTER EXHAUST HOODS

A. General

1. 18 Gauge type 304 stainless steel external welded construction, in accordance with the latest edition of NFPA No.96, including all applicable appendices. Exposed welds to be ground and polished.
2. Grease Removal: UL classified, non-adjustable, stainless steel grease filters with drip-channel gutters, drains and collection basins.
3. Light Fixtures: Furnish type of fixture specified. Fixtures shall be UL listed for hoods, NSF approved, with sealed safety lenses and stainless steel exposed conduit for wiring.
4. Exhaust Duct: Furnish welded stainless steel formed duct collars at ceiling or wall duct connections, where exposed. Furnish exposed to view ductwork as specified. Verify size and location of duct connections required in this contract, before fabrication. Other ductwork will be by the Mechanical Section.
5. Fire Extinguishing System: Pre-piped liquid chemical or water fire suppressant system, as specified, complying with applicable local and NFPA regulations. Wet chemical fire suppression systems shall comply with UL 300 Standards.

2.6 REFRIGERATION EQUIPMENT

A. General

1. Furnish either single or multiple compressor units, as specified or recommended by the manufacturer for the sizes and variations between connected evaporator loads as indicated.
2. Furnish units of the capacities indicated, arranged to respond to multiple-evaporator thermostats and defrosting timers. Include coils, receivers, compressors, motors, motor starters, mounting bases, vibration isolation units, fans, dryers, valves, piping, insulation, gauges, winter control equipment and complete automatic control system.
3. Refrigerant: Pre-charge units with type or types recommended by manufacturer for services indicated, with quick-disconnect type connections where specified, ready to receive refrigerant piping runs to evaporators and (where remote) to condensers. All refrigerant and associated components shall comply with the requirements of the Montreal Protocol Agreement. No CFC refrigerants or associated components shall be allowed on this Project. HFC refrigerants and components shall be used where available. HCFC refrigerants and components, with a minimum 2010 phase-out date, and intermediate replacement refrigerants are to be used only when HFC refrigerants are not available. Contractor shall be responsible for coordinating with manufacturers. Provide refrigerant leak monitoring devices where required by federal, state, or local codes.

B. Components

1. Coils: Coils for fabricated refrigerators shall have vinyl plastic coatings, stainless steel housings and shall be installed in such a manner as to be replaceable.
2. Expansion Valves: Remote refrigeration system shall be complete with thermostatic expansion valves at the evaporator.
3. Thermometers
 - a. Fabricated refrigerated compartments to be fitted minimally with a flush dial thermometer, with chrome plated bezels and to be provided as specified.
 - b. Thermometers shall be adjustable and shall be calibrated after installation.
 - c. Thermometers shall have an accuracy of ± 2 degrees Fahrenheit (1 degree Centigrade).
4. Hardware
 - a. Refrigerator hardware for fabricated refrigerator compartments shall be heavy-duty components.
 - b. Self-closing hinges.
 - c. Latches to be magnetic edge mount type, unless specified or detailed otherwise.
5. Locks
 - a. Doors and drawers for walk-in coolers/freezers and reach-in refrigerated compartments, both fabricated and standard, shall be fitted with cylinder locking type latches and provided with master keys.

C. Ventilation of Refrigerated Equipment

1. Adequate ventilation shall be provided for custom fabricated equipment with integral refrigeration condensing units, both built-in and drop-in. If flow through ventilation cannot be provided, provide flow direction partitions and an additional fan capable of cooling the condensing unit.
2. If, in the opinion of the Contractor, additional room ventilation is required to ensure correct operating temperatures of standard buy-out, custom fabricated or remote refrigeration condensing units, or compressor rack assemblies, they shall so state in a letter to the Architect for evaluation and direction.

2.7 MISCELLANEOUS MATERIALS

- A. Nameplates: Whenever possible, locate nameplates and labels on manufactured items, in accessible position, but not within customer's normal view. Do not apply name-plates or labels on custom fabricated work, except as required for compliance with governing regulations, insurance requirements, or operator performance.
- B. Manufactured Equipment Items: Furnish items as scheduled or herein specified. Verify dimensions, spaces, rough-in and service requirements, and electrical characteristics before ordering. Provide trim, accessories and miscellaneous items for complete installation.

C. Insert Pans

1. General: Provide cut-outs, openings, drawers, or equipment specified or detailed to hold stainless steel insert pans with a full complement of pans as follows:
 - a. One (1) stainless steel, 20-gauge (0.95mm) minimum, solid insert pan for each space, sized per plans, details, or specifications.
 - b. Where pan sizes are not indicated in plans, details, or specifications, provide one full-size pan for each opening.
 - c. Provide maximum depth pan to suit application and space.
2. Provide 18-gauge (1.27mm) removable stainless steel adapter bars where applicable.
3. Provide all cut-outs and openings or equipment specified or detailed to hold stainless steel insert pans with a hinged stainless steel removable night cover.

- D. Reasonable quietness of operation of equipment is a requirement. The Kitchen Equipment Contractor will be required to replace or repair any equipment producing out-of-the-ordinary intolerable noise. This also includes providing and installing bumpers and gaskets for doors and drawers on fabricated and standard manufactured items and sound insulation where feasible.

2.8 ITEMIZED SPECIFICATIONS

- A. Refer to the following pages for specific specification information on each item included in this Section.

ITEM 1 SLIM JIM WASTE RECEPTACLES: 5 REQUIRED

- A. Rubbermaid, model FG354000 *H011. Color: light gray.

ITEM 2 UTILITY CART: 1 REQUIRED

- A. Lakeside, model 243 *H011 with set of four round corner bumpers.

ITEM 3 HAND WASHING SINKS: 2 REQUIRED

- A. Advance Tabco, model 7-PS-62*H011.
- B. Seal to wall.

ITEM 4 DISPOSERS: 6 REQUIRED

- A. Red Goat, model F114P-R *H011 with the following accessories:
1. Model 30-H-RSA 3-1/2" – 4" sink adapter kit.
 2. Model RS remote on/off switch.

- B. Install assembly complete under tables as detailed.

ITEM 5 POT WASHING SINK TABLE WITH REMOVABLE SINK COVERS: 1 REQUIRED

- A. Pacific Stainless Products, model TCS-(1)2824R-(2)1824-14-B30 *H011 fully welded custom "Spec Line" sink table in configuration per plan. Include the following accessories:
1. One Chicago Faucets, model 923-H613XKCAB splash mount pre-rinse centered between two smaller sinks.
 2. One Chicago Faucets, model 631-L9E35ABCP splash mount faucet centered between large and smaller sinks.
 3. Three Chicago Faucets, model 1366-NF rotary waste assemblies with 14 gauge stainless steel lever waste brackets welded to underside of triple sink compartments.
 4. ~~Model PRSTM-3614 table mount potrack with shelf. above left drainboard. ADD 02~~
 5. Model PRSTM-6614 table mount potrack with shelf. over right drainboard and large sink as detailed.
 6. Stainless steel undershelf below left drainboard.
 7. 14" deep sinks.
 8. Allow clearance under right drainboard to install Item 6 existing undercounter warewasher.
 9. Sound deaden underside of top and sink compartments.
- B. Submit factory drawing for approval.
- C. Install assembly complete. Clip and seal to wall.

ITEM 6 UNDERCOUNTER WAREWASHER: 1 REQUIRED

- A. Existing equipment. Relocate and re-install in location shown.

ITEM 7 NOT USED ADD 02 - ~~MOBILE POT AND PAN SHELVEING: 1 REQUIRED~~

- ~~A. Metro, model SEC33S-SD with three model A1836NS intermediate super adjustable shelves *H011.~~

ITEM 8 CORNER/CHANNEL GUARDS AND LOW WALL CAPS: 1 LOT REQUIRED

- A. Fabricate as detailed and construct vertical corner/channel guards and low wall caps of one piece all welded 14 gauge stainless steel. Install in locations shown on Sheet FS1.1. Install with stainless steel screws.
- B. Seal guards to walls and at joints as required.

ITEM 9 REACH-IN REFRIGERATOR: 1 REQUIRED

- A. Traulsen, model RHT232WUT-FHS *H011 with doors hinged standard.

ITEM 10 CLOTHES WASHER AND DRYER: 1 EA REQUIRED

- A. Owner furnished and installed.

ITEM 11 DRY STORAGE SHELVING: 1 LOT REQUIRED

- A. Existing equipment.

ITEM 12 CUBE ICE MACHINE: 1 REQUIRED ADD 01

- A. Existing equipment. Relocate and reinstall in location shown. ~~Ice-O-Matic, model GEMU090 *H011 with model KPU090 Pump Kit.~~
- ~~B. Include model IF18C In-line water filtration system.~~

ITEM 13 NOT USED

ITEM 14 NOT USED

ITEM 15 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 5430ND-2 *H011, 3'-5" long Type I 18 gauge stainless steel exhaust only canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
1. Flush LED light fixture as shown on Captive-Aire factory drawings. Furnish and install lamp.
 2. Light and fan on/off switch to be mounted on wall.
 3. Ansul R102 Restaurant Fire Suppression System furnished and installed by Captive-Aire. Install in accordance with NFPA bulletin 96, including all current amendments to protect this hood and Item 21 including surface protection as required. All piping and conduit shall be run concealed in walls or above ceiling, except where exposure is necessary for functional reasons. Exposed piping shall be chrome plated or run in stainless steel sleeves. Include reset relays and manual remote pull station. System shall connect to mechanical gas shut-off valve furnished loose by Captive-Aire. All contactors are furnished by the Electrical Division for shut down of electric supply to all equipment in the event of system activation. System to be installed inside hood mount utility cabinet at right end.
 4. Hood to have insulation for zero inch clearance to combustibles at ceiling and walls.
 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 6. Install hood with 80" clearance from finished floor.
- B. Exhaust duct work and fans furnished and installed by Division 23.

ITEM 16 STAINLESS STEEL WALL FLASHING: 1 LOT REQUIRED

- A. Fabricate 20 gauge stainless steel Number 4 finish wall flashing bonded to gypsum board with heat resistant mastic beginning directly above cove base on walls and terminating 2" above bottom edge of canopy hoods. Flashing shall run full length of each canopy hood where shown. Flashing shall also wrap entire low wall under Item 21.
- B. Note: ceiling and wall flashing shall meet Mechanical Code Sections 507.4 and 507.9. Verify all requirements and provide flashing (insulated for 1 hour rating if required) to meet the codes.
- C. Install flashing with no exposed fasteners or screws in interlocking sections of equal lengths. Verify that surfaces are flat and smooth with a maximum variation of 1/16" in 10 feet.
- D. Install assembly complete.

ITEM 17 COMBI-OVEN STEAMER: 1 REQUIRED

- A. Rational, model ICC 6-HALF E 208/240 3PH (LM200BE) *H011 with the following accessories:
 - 1. Model 1900.1150US water filtration system.
 - 2. Model 60.31.099 Unit Elevation for Tabletop Installation.
 - 3. Safety door lock.
 - 4. USB Data Memory Stick.
 - 5. Model 60.72.107 Starter Package (includes one grill and pizza tray, two baking trays, and two granite-enameled containers.
 - 6. Three Model 6019-1250 CombiFry Baskets.
 - 7. Model 56.01.535 Detergent-Tabs Active Green.

ITEM 18 ADA PREP WORK TABLE: 1 REQUIRED ADD 01

- A. Pacific Stainless Products, model PTS8430C8R20-Modified *H011 fully welded prep table. Sink table shall incorporate the following:
 - 1. 12" x 18" x 7" deep custom sink (for ADA).
 - 2. Special 34" high table top.
 - 3. Chicago Faucets, model 786-LR9E35V317AB deck mount faucet.
 - 4. Chicago Faucets, model 337-CP Grid strainer offset.
 - 5. Fisher, model 4730 wall mount double-jointed fill faucet. ADD 02 ~~TMSC 8414 table mount cantilever shelf. Trim and seal openings in backsplash.~~
 - 6. Left end splash.
 - 7. Reinforce underside of top to support Item 17 Combi-Oven/Steamer.
 - 8. Sound deaden underside of top and sink compartment.
- B. Install assembly complete. Clip and seal to wall.

ITEM 19 NOT USED

ITEM 20 MOBILE PROOFING CABINET: 1 REQUIRED

A. Metro, model C519-CFC-U *H011 with the following accessories:

1. Full perimeter bumper.
2. Stainless steel universal slide upgrade.

B. Install assembly complete.

ITEM 21 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

A. Captive-Aire, model 6030ND-2WI *H011, Type I 6'-8" long x 2'-6" high 18 gauge stainless steel exhaust only canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:

1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
1. Light and fan on/off switch to be mounted on utility wall.
2. Ansul R102 Restaurant Fire Suppression System supplied by Item 15 hood.
3. Hood to have insulation for zero inch clearance to combustibles at ceiling.
4. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
5. Install hood with 80" clearance from finished floor.

B. Exhaust duct work and fans furnished and installed by Division 23.

ITEM 22 4-BURNER OPEN RANGES: 7 REQUIRED

A. American Range, model AR30-4B *H011 gas range with the following accessories:

1. 6" high swivel casters with brakes.
2. Additional chrome oven rack.
3. Innonvection oven.
4. 36" long gas quick disconnect assembly with cable restraint.

B. Install assembly complete.

ITEM 23 INDUCTION WOK: 1 REQUIRED

A. CookTek, model MWG5000-200 (#647101) *H011. Include 14" stainless steel Wok (Part #CT-103871).

ITEM 24 TEACHERS MAPLE TOP WORK TABLE: 1 REQUIRED

- A. John Boos, model BTNS01 *H011 48" long x 30" wide maple top work table with stainless steel base and 3-Tier drawer unit.

ITEM 25 MOBILE INGREDIENT CARTS: 6 REQUIRED

- A. FWE, model OTR-16-MSWT *H011.

ITEM 26 MOBILE TABLE: 1 REQUIRED

- A. Pacific Stainless, model WKS2430IS *H011 with marine top and 6" high all-swivel caster set; two with brakes.

ITEM 27 MOBILE ISLAND WORK TABLES: 6 REQUIRED ADD 01

- A. Existing equipment.
- B. Modify existing leg sets and install all swivel caster sets; two with brakes. Overall table height to be 36" after casters are installed.
- C. Relocate and reinstall in position shown.

ITEM 28 NOT USED

ITEM 29 REACH-IN FREEZER: 1 REQUIRED

- A. Traulsen, model G22010 *H011. ADD 02 ~~with the following accessories:~~

ITEM 30 STUDENT WORK STATION: 1 REQUIRED

- A. Pacific Stainless Products, model ~~WKS-MODXXXX-A6S~~ ADD 02 *H011 custom design table with integral sinks. Refer to details. Table shall incorporate the following:
 - 1. Three Chicago Faucets, model 631-L9E35ABCP splash mount faucets centered between sinks.
 - 2. Three Chicago Faucets, model 1366-NF rotary waste assemblies with 14 gauge stainless steel lever waste brackets welded to underside of triple sink compartments.
 - 3. Sink sizes: 18" x 18" x 14" deep.
 - 4. Provide cut-out in sinks shown and weld in Item 4 Disposer sink flange.
 - 5. Marine edges.
 - 6. Stainless steel 3-tier drawer assemblies as shown.
- B. Install assembly complete.

- C. Clip and seal to walls.

ITEM 31 MICROWAVE OVENS: 6 REQUIRED

- A. Existing equipment. Relocate and reinstall in location shown.

ITEM 32 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 5430ND-2WI-PSP-FB *H011, Type I 4'-6" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
 - 1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
 - 1. Light and fan on/off switch to be mounted on wall.
 - 2. Ansul R102 Restaurant Fire Suppression System furnished and installed by Captive-Aire. Install in accordance with NFPA bulletin 96, including all current amendments to protect this hood and Item 33 including surface protection as required. All piping and conduit shall be run concealed in walls or above ceiling, except where exposure is necessary for functional reasons. Exposed piping shall be chrome plated or run in stainless steel sleeves. Include reset relays and manual remote pull station. System shall connect to mechanical gas shut-off valve furnished loose by Captive-Aire. All contactors are furnished by the Electrical Division for shut down of electric supply to all equipment in the event of system activation. System to be installed inside hood mount utility cabinet at right end.
 - 3. Hood to have insulation for zero inch clearance to combustibles at ceiling.
 - 4. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 - 5. Install hood with 80" clearance from finished floor.
- B. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 33 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 7230NDI-PSP-FB *H011, Type I 7'-2" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
 - 1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
 - 2. Light and fan on/off switch to be mounted on wall.
 - 3. Ansul R102 Restaurant Fire Suppression System supplied by Item 32 hood.
 - 4. Hood to have insulation for zero inch clearance to combustibles at ceiling.
 - 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 - 6. Install hood with 80" clearance from finished floor.

- B. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 34 STUDENT WORK STATION: 1 REQUIRED

- A. Pacific Stainless Products, model ~~WKS-MODXXXX-A6S~~ ADD 02 *H011 custom design table with integral sinks. Refer to details. Table shall incorporate the following:
1. Three Chicago Faucets, model 631-L9E35ABCP splash mount faucets centered between sinks.
 2. Three Chicago Faucets, model 1366-NF rotary waste assemblies with 14 gauge stainless steel lever waste brackets welded to underside of triple sink compartments.
 3. Sink sizes: 18" x 18" x 14" deep.
 4. Provide cut-out in sinks shown and weld in Item 4 Disposer sink flange.
 5. Marine edges.
 6. Stainless steel 3-tier drawer assemblies as shown.
- B. Install assembly complete.
- C. Clip and seal to walls.

ITEM 35 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 5430ND-2-PSP-F *H011, Type I 4'-7" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
1. Flush LED light fixture as shown on Captive-Aire factory drawings. Furnish and install lamp.
 2. Light and fan on/off switch to be mounted on utility cabinet.
 3. Ansul R102 Restaurant Fire Suppression System furnished and installed by Captive-Aire. Install in accordance with NFPA bulletin 96, including all current amendments to protect this hood and Item 36 including surface protection as required. All piping and conduit shall be run concealed in walls or above ceiling, except where exposure is necessary for functional reasons. Exposed piping shall be chrome plated or run in stainless steel sleeves. Include reset relays and manual remote pull station. System shall connect to mechanical gas shut-off valve furnished loose by Captive-Aire. All contactors are furnished by the Electrical Division for shut down of electric supply to all equipment in the event of system activation. System to be installed inside hood mount utility cabinet at right end.
 4. Hood to have insulation for zero inch clearance to combustibles at ceiling and wall.
 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 6. Install hood with 80" clearance from finished floor.
- A. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 36 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 7230NDI-PSP-FB *H011, Type I 7'-2" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
 - 1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
 - 2. Light and fan on/off switch to be mounted on utility cabinet.
 - 3. Ansul R102 Restaurant Fire Suppression System supplied by Item 35 hood.
 - 4. Hood to have insulation for zero inch clearance to combustibles at ceiling.
 - 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 - 6. Install hood with 80" clearance from finished floor.
- B. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 37 MOBILE INGREDIENT BINS: 3 REQUIRED

- A. Existing equipment. Relocate and reinstall in position shown.

PART 3 - EXECUTION

3.1 SUPERVISION

- A. A competent supervisor, representing the Contractor, shall be present at all times during progress of the Contractor's work.

3.2 SITE EXAMINATION

- A. Verify site conditions under the provisions of the General Conditions, Supplementary Conditions and applicable provisions of Division 1 Sections. Notify the Architect, in writing, of unsatisfactory conditions for proper installation of food service equipment.
- B. Verify wall, column, door, window, and ceiling locations and dimensions. Fabrication and installation should not proceed until dimensions and conditions have been verified and coordinated with fabrication details.
- C. Verify that wall reinforcement or backing has been provided and is correct for wall supported equipment. Coordinate placement dimensions with wall construction Section.
- D. Verify that ventilation ducts are of the correct characteristics, and in the required locations.
- E. Verify that utilities are available, of the correct characteristics, and in the required locations.

3.3 INSTALLATION

- A. Sequence installation and erection to ensure correct mechanical and electrical utility connections are achieved.
- B. Install items in accordance with manufacturer's instructions.
- C. Set each item of non-mobile and non-portable equipment securely in place, leveled and adjusted to correct height. Anchor to supporting substrate where indicated, and where required for sustained operation and use without shifting or dislocation. Conceal anchorages wherever possible. Adjust counter tops and other work surfaces to a level tolerance of 1/16 inch (maximum offset, and plus or minus on dimension, and maximum variation in 2'-0" run from level or indicated slope). Provide anchors, supports, bracing, clips, attachments, etc., as required to comply with the local seismic restraint requirements. The Guidelines for Seismic Restraint of Kitchen Equipment, as prepared for the Sheet Metal Industry Fund of Los Angeles and endorsed by SMACNA, should be followed.
- D. Complete field assembly joints in the work (joints which cannot be completed in the shop) by welding, bolting-and-gasketing, or similar methods as indicated and specified. Grind welds smooth and restore finish. Set or trim flush, except for "T" gaskets as indicated.
- E. Provide closure plates and strips where required, with joints coordinated with units of equipment.
- F. Provide sealants and gaskets all around each unit to make joints airtight, waterproof, vermin-proof, and sanitary for cleaning purposes.
- G. Joints up to 3/8 inch wide will be stuffed with backer rod to shape sealant bead properly, at 1/4 inch depth.
- H. At internal corner joints, apply sealant or gaskets to form a sanitary cove of not less than 3/8 inch radius.
- I. Shape exposed surfaces of sealant slightly concave with edges flush with faces of materials at joint.
- J. Provide sealant filled or gasketed joints up to 3/8 inch joint width. Wider than 3/8 inch, provide matching metal closure strips, with sealant application each side of strips. Anchor gaskets mechanically or with adhesives to prevent displacement.
- K. Treat enclosed spaces, inaccessible after equipment installation, by covering horizontal surfaces with powdered borax at a rate of 4 ounces per square foot.
- L. Insulate to prevent electrolysis between dissimilar metals.
- M. Cut and drill components for service outlets, fixtures, piping, conduit, and fittings.
- N. Verify and coordinate the mounting heights of all wall shelves and equipment, with equipment located below them for proper clearances.

- O. Coordinate with the Plumbing and Electrical Divisions and provide holes in food service equipment for plumbing and electrical service to and through the fixtures, as required. This includes welded sleeves, collars, ferrules, or escutcheons. Locate these services so that they do not interfere with intended use and/or servicing of the fixture. No alterations of the building are allowed without written permission by the General Contractor and/or Architect. (i.e. – routing refrigerant lines).

3.4 ADJUSTING

- A. Test and adjust equipment, controls and safety devices to ensure proper working order and conditions.
- B. Repair or replace equipment, which is found to be defective in its operation, including units which are below capacity or operating with excessive noise or vibration.

3.5 CLEANING AND RESTORING FINISHES

- A. After completion of installation and completion of other major work in food service areas, remove protective coverings and clean food service equipment internally and externally.
- B. Restore exposed and semi-exposed finishes, to remove abrasions and other damages, polish exposed metal surfaces and touch-up painted surfaces. Replace work, which cannot be successfully restored.
- C. Polish glass, plastic, hardware and accessories, fixtures and fittings.
- D. Wash and clean equipment and leave in a condition ready for the Owner to sanitize and use.

3.6 TESTING, START-UP AND INSTRUCTIONS

- A. Delay the start-up of equipment until service lines have been tested, balanced, and adjusted for pressure, voltage and similar considerations and until water and steam lines have been cleaned and treated for sanitation.
- B. Make arrangements for demonstration of food service equipment operation and maintenance in advance with the Owner/Operator.
- C. Demonstrate food service equipment to familiarize the Owner and the Operator on operation and maintenance procedures, including periodic preventative maintenance measures required. Include an explanation of service requirements and simple on-site service procedures as well as information concerning the name, address and telephone number of qualified local source of service. The individual performing the demonstration shall be knowledgeable of operating and service aspects of the equipment.
- D. Provide a written report of the demonstration to the Owner, outlining the equipment demonstrated and malfunctions or deficiencies noted. Indicate individuals present at demonstration.

- E. Final Cleaning: After testing and start-up, clean the food service equipment and leave in a condition ready for the Owner to sanitize and use.

3.7 CLEAR AWAY

- A. Throughout the progress of their work, the Contractor shall keep the working area free from debris and shall remove rubbish from premises resulting from work being done by them. At the completion of their work, the Contractor shall leave the premises in a clean and finished condition.

END OF SECTION 011000