



ORCHARD VIEW SCHOOLS

**35 S. SHERIDAN DRIVE
MUSKEGON, MICHIGAN 49442**

PROJECT MANUAL FOR:

Orchard View Early Elementary

FOOD SERVICE EQUIPMENT

35 S. SHERIDAN

MUSKEGON, MI 49442

PROJECT NO: 86610007

ISSUED FOR BIDS

1/31/2023

**PROJECT MANUAL FOR:
ORCHARD VIEW EARLY ELEMENTARY
ORCHARD VIEW MIDDLE SCHOOL
FOOD SERVICE EQUIPMENT
MUSKEGON, MI**

**PREPARED FOR:
ORCHARD VIEW PUBLIC SCHOOLS
35 S. SHELDON
MUSKEGON, MI 49442**

**PREPARED BY:
JRA Food Service Consultants, LLC
Jim Riemenschneider
3113 W. River Rd
Muskegon, MI 49445
616-454-4433 (TELEPHONE)**

PROJECT NO: 86610007

JANUARY 31, 2023 - ISSUED FOR BIDS

THIS DOCUMENT HAS BEEN PREPARED BY JRA Food Service Consultants, LLC AS AN INSTRUMENT OF SERVICE, AND JRA Food Service Consultants, LLC SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THERETO.

SECTION 00 0104 PROJECT MANUAL WRITER DIRECTORY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Identification of project team members.

1.02 PROJECT TEAM

- A. Owner:
 - 1. Owner Name: OVEE and Middle School Food Service Equipment
 - 2. Project Name: Food Service Equipment
- B. Architect/Engineer
 - 1. Company Name: JRA Food Service Consultants, LLC

1.03 PROJECT MANUAL WRITING TEAM

- A. Design Team Project Manager
 - 1. Name: Jim Riemenschneider – JRA Food Service Consultants, LLC
- B. Project Assistant
 - 1. Courtney Payne - JRA Food Service Consultants, LLC
- C. Mechanical Engineer - Chris Nolan
 - 1. Name: Chris Nolan - Bergmann Architects, Engineers & Planners

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 00 1113 ADVERTISEMENT FOR BIDS

FROM:

1.01 THE OWNER (HEREINAFTER REFERRED TO AS OWNER):

- A. Orchard View Public Schools
- B. Mail hard copies to:
 - Orchard View Public Schools
 - Attn: Kayleigh Macomber
 - 35 S. Sheridan Drive
 - Muskegon, MI, 49442

OR

- C. Hand deliver hard copies to:
 - Orchard View Public Schools
 - Attn: Kayleigh Macomber
 - 35 S. Sheridan Drive
 - Muskegon, MI 49442

1.02 BID DUE DATE: Monday February 20th, 2023 at 2:00pm

1.03 TO: POTENTIAL BIDDERS

- A. Your firm is invited to submit an offer under seal to owner for the food service equipment at OVEE at 2820 MacArthur Road, Muskegon, MI, 49442 and Middle School at 35 S. Sheridan, Muskegon, MI, 49442 before 2:00 pm local standard time on February 20, 2023.
- B. Bidding documents will be available on January 31, 2023
- C. Sealed proposals for this project will be received and publicly opened at the Central Office located at 35 S. Sheridan Road, Muskegon, MI 49442 immediately following the bid due date.
- D. Questions pertaining to the food service kitchen equipment should be directed to Jim Riemenschneider at 616-454-4433 or 616-890-8880 or to Kayleigh Macomber at 231-760-1576
- E. Bid Documents can be obtained from the districts website:
 - <http://www.orchardview.org/administration/request-for-proposals/>
- F. The Owner intends to award the project during the month of February, 2023.
- G. Davis Bacon Wage Rates NOT required
- H. Orchard View Public Schools reserves the right to reject any or all proposals; reserves the right to award the contract to a bidding entity other than the low bid entity; reserves all rights granted to it by law; and reserves the right to waive formalities as its interest may require.

END OF SECTION

SECTION 00 2113 INSTRUCTIONS TO BIDDERS

SUMMARY

1.01 DOCUMENT INCLUDES

- A. Invitation
 - 1. Bid Submission
- B. Bid Documents and Contract Documents
- C. Site Assessment
 - 1. Site Examination
 - 2. Prebid Conference

1.02 RELATED DOCUMENTS

- A. Section 11 4000 Food Service Plans and Specifications

INVITATION

2.01 BID SUBMISSION

2.02 INTENT

- A. The intent of this Bid request is to obtain an offer to purchase the food service equipment for kitchen renovations at OVEE at 2820 MacArthur Road, Muskegon, MI, 49442 and Middle School at 35 S. Sheridan, Muskegon, MI, 49442 for a Stipulated Sum contract, in accordance with the Contract Documents.

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Location: OVEE at 2820 MacArthur Road, Muskegon, MI, 49442 and Middle School at 35 S. Sheridan, Muskegon, MI, 49442.

2.04 CONTRACT TIME

- A. The contract is intended to be awarded in February 2023. The food service equipment needs to be here in accordance with the renovation project that begins on June 9th 2023. We must have all food service equipment here in time to complete the whole renovation project by August 25, 2023.

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

3.02 CONTRACT DOCUMENTS IDENTIFICATION

- A. The Contract Documents are identified as Project Number 86610007, as prepared by JRA Food Service Consultants who is located at 3113 W. River Road Muskegon, MI 49445 and with contents as identified in the Table of Contents.

3.03 AVAILABILITY

- A. Bidding Documents will be available on January 31, 2023
 - Bid documents can be obtained from the districts web site:
<http://www.orchardview.org/administration/request-for-proposals/>
- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

3.04 EXAMINATION

- A. The bidder shall visit the various sites of the work to fully inform himself of the existing conditions and materials and labor required to complete the project. No additional compensation will be allowed to complete the work due to the bidder's failure to acquaint themselves with the existing conditions.

3.05 INQUIRIES/ADDENDA

- A. Direct questions to Jim Riemenschneider, email; jimr@jrafoodservicedesign.com, phone number: 616-454-4433
- B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Verbal answers are not binding on any party.

- D. Clarifications requested by bidders must be in writing. The reply will be in the form of an RFI Response or Addendum, a copy of which will be supplied to all bidders. Questions are due no later than February 15, 2023 at 2:00 pm local time.

3.06 VOLUNTARY ALTERNATES

- A. Base bids are requested in accordance with the detailed specifications.
- B. Voluntary alternates, which in the bidder's judgement will result in a better job or an equally satisfactory job at a lower cost, are allowed. The Owner reserves the right to reject any and all alternates.
- C. Such alternates are to be described in detail, together with any addition or deduction to the base price, to permit proper evaluation.

SITE ASSESSMENT

4.01 PREBID CONFERENCE

- A. A bidders conference has been scheduled for Tuesday, February 7th, 2023 at 2:00 PM. Start at OVEE 2820 MacArthur Rd, Muskegon, MI 49442 at 2:00PM then move to Middle School at 35 S Sheridan, Muskegon, MI 49442 at 2:30PM, and finish with Cardinal at 2310 Marquette, Muskegon, MI 49442 at 3:00PM
- B. All Prime contractors are invited as well as their subcontractors
- C. Representatives of Architect and Owner will be in attendance.

QUALIFICATIONS

5.01 EVIDENCE OF QUALIFICATIONS

- A. Each bidder must present a list of up to three similar type projects with references for K-12 clients.

BID SUBMISSION

6.01 SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit two copies of the executed offer on the Bid Forms provided, signed and sealed with the required security in a closed opaque envelope, clearly identified with bidder's name, project name and Owner's name on the outside.
- C. Improperly completed information, irregularities in security deposit, may be cause to declare the bid invalid.

6.02 BID INELIGIBILITY

- A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared unacceptable.

BID ENCLOSURES/REQUIREMENTS

7.01 SECURITY DEPOSIT

- A. Bids shall be accompanied by a security deposit as follows:
 - 1. Bid Bond in the amount of 5% on AIA A310 Bid Bond Form or Cashier's Check.
- B. The security deposit will be returned after delivery to the Owner of the required Performance and Payment Bond(s) by the accepted bidder.
- C. If no contract is awarded, all security deposits will be returned.
- D. The amount of the bid bond shall be forfeited to the Owner upon failure of the successful bidder to enter a contract within thirty (30) days after acceptance of the proposal

7.02 PERFORMANCE ASSURANCE

- A. A Bid Performance Bond is required.

- B. Include a cost for a performance, labor and materials bond (PLM) as a separate line item on the Bid Form (Not part of the base bid).

7.03 BID FORM REQUIREMENTS

- A. Complete all requested information in the Bid Form and Appendices.

7.04 BID FORM SIGNATURE

- A. Bids which are not signed by the individual making them, should have attached them to a power of attorney evidencing authority to sign the bid in the name of the person for whom it is signed.
- B. Bids which are signed for a partnership should be signed by all of the partners or by an attorney in fact. If signed by an attorney in fact, there should be attached to the bid a power of attorney evidencing authority to sign the bid, executed by the partners.
- C. Bids which are signed for a corporation should have the correct corporate name thereto and the signature of the president or other authored officer of the corporation below the corporate name following the work "By".

7.05 PREVAILING WAGES

- A. NOT required
- B. Certified payroll is required to be submitted with each pay application during the life of the project.

OFFER ACCEPTANCE/REJECTION

8.01 DURATION OF OFFER

- A. No bidder may withdraw their bid for a period of 90 days from the date of opening the bids.

8.02 ACCEPTANCE OF OFFER

- A. Owner reserves the right to reject any and all bids, or to waive irregularities as its interest may require.

8.03 AWARD OF CONTRACT

- A. Orchard View Schools Board of Education reserves the right to determine which bid is best suited for its use, to accept any or all parts of a bid, and awarding all or part of the contract to one or more qualified bidders.

8.04 AWARD DATE

- A. The date of the contract award shall be on the letter of intent issued by Orchard View Public Schools followed by a purchase order one week later. It is expected that a decision will be made no later than February 27, 2023.

8.05 CONTRACT

- A. Within ten days after being notified of the acceptance of the proposal, the bidder to whom the award is made will be required to enter into a written agreement in the form hereto specified with the Orchard View Public Schools and furnish two bonds with an approved indemnity company, as surety, as follows:
 1. **PERFORMANCE BOND:** A Surety Bond in the full amount of the contract, running to Orchard View Public Schools, demanding faithful performance of all provisions of the Contract and the satisfactory completion of the work within the time stipulated in the contract.
 2. **PAYMENT BOND:** A Surety Bond in the amount of 10% of the Contract, running to Orchard View Public Schools insuring the payment of all bids by the bidder to Subcontractor and for labor and material.

8.06 PAYMENT

- A. The contractor may submit monthly invoices for work completed. Invoices must be on an AIA form and approved by JRA Food Service Consultants, LLC. These will be paid on a regular basis, less an appropriate retention. Final payment will be made upon successful completion of all punch list items and issuance of all warranties.

8.07 DAYS AND HOURS OF WORK

- A. Work may be done Monday through Friday from the hours of 7:00 am to 9:00 pm. If the contractor wishes to work Saturdays, or at other times, they shall submit a request in writing to Jack Timmer, Orchard View Public Schools at jack.timmer@orchardview.org or Kayleigh Macomber at kayleigh.macomber@orchardview.org

8.08 QUALITY - APPEARANCE - TIMELINESS

- A. Orchard View Public Schools has high standards for excellence. These include quality, attention to appearance and image, and timely completion of the specified work.
- B. The standards are reflected in the specifications and other documents within this proposal. The Owner will expect the Contractor to meet these standards, which will be enforced by Orchard View Public Schools personnel.
- C. Some examples of these standards are listed below:
 - 1. Planning ahead so that the work can be completed within the established time limits.
 - 2. Doing work correctly the first time.
 - 3. Keeping equipment clean, presentable and well maintained.
 - 4. Keeping a flexible schedule and cooperating in a reasonable manner with Orchard View Public Schools.
 - 5. Daily cleanup of the work area to keep it in a neat, safe and presentable appearance.

8.09 FAMILIA RELATIONSHIP

- A. The attached Familial Relationship Disclosure Statement and Iranian Certificate of Compliance Statement MUST be submitted with your bid.

8.10 WORK RELATED TO PERMITTING

- A. Because the permit will be under review during bidding, the owner reserves the right to negotiate any work required by the permit after an award has been made as an add to the contract. The terms of that negotiation will be fair and equitable to both parties. If the Owner and the Contractor do not come to agreement for the additional work, the Owner reserves the right to negotiate the additional work with another Contractor.

END OF SECTION

SECTION 11 4000 - FOOD SERVICE EQUIPMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All Drawings, General and Supplementary Conditions, Division 1, Specifications, and related contract documents apply to this section and the requirements may exceed those shown in this section. The Food Service Engineering Consultants on this project are JRA Food Service Consultants, LLC in Grand Rapids, Michigan (616-454-4433) and is responsible to the Architect and Owner for ascertaining that the Food Service Equipment Contractor complies with all the requirements of this section.

1.02 SUMMARY

- A. As listed in this division, the Food Service Equipment Contractor shall furnish all labor, material, work, equipment, transportation, accessories, taxes, etc. for a complete and continuous installation in accordance with the requirements of these plans and specifications and related documents.
- B. The FSEC shall familiarize themselves with local conditions affecting the cost of the work and examine the site and all Food Service Equipment contract documents including Architectural drawings, and contract documents, all of which constitute the responsibility of the FSEC.

1.03 SUBSTITUTIONS AND VOLUNTARY ALTERNATES:

- A. The first manufacturer of equipment listed in the item specifications is intended to be the basis of the base bid. All other manufacturers must conform to the specifications, size, accessories, materials, capacity, etc.
- B. A proposed substitution on any specified equipment must be submitted to the Consultant 10 days in advance of the bid date and must include all manufacturers shop drawings and data sheets on the proposed equipment. The supplier shall pay any additional costs incurred for changes, engineering services, utilities, construction, etc. that may be incurred by said substitutions.

1.04 INTERPRETATION OF DOCUMENTS:

- A. Prior to receipt of bids, all questions, clarification, and changes in the documents shall be executed by addendum. After award of contract, all changes shall be performed by bulletin.
- B. FSEC shall submit an itemized price breakdown to the Consultant on their letterhead for each piece of equipment including labor, freight, manufacturer, quantity, taxes, etc. as applicable.
- C. Any deletions of equipment by the Owner and/or Consultant prior to approval and/or release of the shop drawings, brochures, etc. shall be credited to the Owner at the itemized price as listed in the itemized price breakdown and include all equipment costs, freight, labor, taxes etc. Pricing shall not be credited at the amount listed on the Schedule of Values.
- D. Any additions to equipment by the Owner and/or Consultant that result in cost increases after approval and/or release of shop drawings, brochures, etc. shall be immediately noted by the FSEC and a written request with prices for a bulletin shall be issued by the FSEC to the Consultant.
- E. The General Specifications are applicable to items listed in the item specifications.

1.05 ABBREVIATIONS

- A. The following abbreviations are used herein unless otherwise noted on the plans or item specifications.

A	Amps
AFF	Above Finish Floor
BTC	Branch To Connection
CFM	Cubic Feet of Air Per Minute
C.P.	Chrome Plated
CW	Cold Water - 25 PSI
DCO	Duplex Convenience Outlet - 20 amp
DFA	Drop From Above
E.T. or E.C.	Electrical Trades/Subcontractor
FL DR	Floor Drain - Wade W1104
FFD	Funnel Floor Drain - Wade 1104-EF4
FL SK	Floor Sink - 12" - Wade W9144-15
FPM	Feet Per Minute
FSEC	Food Service Equipment Trade/Subcontractor
F.S.C.	Food Service Consultant
G	Natural Gas - 7" water column
GP	General Purpose
G.S.	General Specifications
G.T. or G.C.	General Trades/Contractor
HVAT or HVAC	Heat-Vent-AC Trades/Sub-Contractor
HP	Horsepower
HW	Hot Water - 140 degree - 25 PSI
J.B.	Junction Box
KW	Kilowatt
N.S.R.	No Service Required
N.I.C.	Not in Contract of FSEC
P.T. or P.C.	Plumbing Trades/Subcontractor
S.O.M.	Standard of Manufacturer
s.s.	Stainless Steel
SS	Steam Supply - 25 PSI
SR	Steam Return
V	Volts
VIF	Verify in field
W	Waste Outlet
W.G.	Water Gauge - Static Pressure

1.06 CONFORMITY

- A. All equipment furnished under these specifications shall be newly manufactured and installed in strict conformity with all codes, regulations and requirements of the State Board of Health, the National Sanitation Foundation Standards, or any state or local agency.
- B. All equipment shall conform to the current standards and bear the seal of UL, NEMA, ASME, AGA, OSHA, NFPA, etc. where applicable and/or otherwise conform to the requirements of the authorities having jurisdiction.
- C. Wherever the requirements of the specifications and drawings are in excess of the regulations, the specifications and drawings shall govern. Whenever the regulations are in excess of the specifications and drawings, the regulations shall govern.

1.07 PERMITS - LICENSES - PHONE CALLS

- A. Provide to the proper authorities all notices required by law, obtain all refrigeration permits, licenses, etc., and pay any legal fees necessary for the due and faithful performance of the work, and which may arise incidental to the fulfilling of the foodservice documents. The Owner

shall pay for any health department plan review or license fees.

- B. Other trades shall provide boiler permits, hook up permits, building permits, etc. The FSEC shall provide hood and refrigeration permits when applicable.
- C. Accept all collect phone calls relating to food service equipment that pertain to the project until warranty has expired on the equipment.

1.08 SUBMITTAL OF BUYOUT BROCHURES AND SHOP DRAWINGS

- A. Shop drawing and brochure requirements may also be listed in the general requirements or other areas of the documents. Provide submittals as per those requirements or as listed below - whichever is greater.

- B. All shop drawings, rough-in drawings, equipment brochures, etc. shall be submitted at one time within 20 days of the notice to proceed. Said items are subject to the terms and conditions of the plans and specifications for the entire project. All drawings which are submitted for distribution shall be clear and concise and have the following notes printed on each and every sheet:

Name of the F.S.E.C.
Name and location of the project.
Name of the Architect.
Name of the Consultant.
Name of the General Contractor.
Drawing number.
Date of drawing and revisions.

The following statement: The (name of F.S.E.C.) is solely responsible for the accuracy and completeness of these drawings and specifications, and we approve them for construction purposes. Signed: (Officer, Partner, etc.)

- C. All submitted data shall be reviewed for general compliance only and does not alleviate the F.S.E.C. from providing equipment as per the intent of the plans and specifications.
- D. Owner shall not be responsible for any equipment ordered or prior to receipt of Consultant approved brochures or shop drawings.
- E. If applicable, the F.S.E.C. shall visit site to verify requirements of existing or relocated equipment prior to submittals.

1.09 BUYOUT BROCHURES:

- A. As soon as possible, prepare a buy-out equipment brochure in PDF format with copies of manufacturer's specification sheet or literature on each item, along with a list of the model, manufacturer, quantity, connections required, accessories, etc. for each item and component or accessories. Material on all items shall be assembled in order and no consideration will be given to partial lists submitted from time to time.

1.10 ROUGH-IN DRAWING AND MECHANICAL DATA:

- A. As soon as possible, submit an electronic drawing in PDF format at .25" = 1'-0" to locate accurately the utility connections for each item of equipment requiring water, gas, electrical, and drain. Listed on the drawings shall be dimensions to required utilities and located from a center line of a structural column or another positive reference point.
- B. Upon final approval of data, distribute copies to all trades, Owner, Architect, health department, etc. as required.

- C. Drawings shall be at 1/4" scale or larger and indicate each electrical and mechanical roughing-in required for all new and/or relocated or future or purveyor supplied (the Owner shall provide proper data on purveyor supplied equipment) food service equipment as listed in the plans or specifications. Include all electrical and convenience outlets, gas, water, steam, ventilation, drains, floor depressions, wall openings, weights, ceiling recess or access panels, sleeves, beverage lines, roof data, refrigeration, etc.
- D. Furnish all necessary assistance to the various trades and be responsible for the proper location of sleeves and conduits through which the utility lines are to be drawn. A field inspection shall be made before the finished floors are laid to make any necessary relocations of the utility sleeves, rough-ins and conduits, and immediate written notice shall be provided if rough in problems have occurred.

1.11 SUBMITTALS OF SHOP DRAWINGS:

- A. Completely detail and submit shop drawings (s.s. fabrication, fire protection, ventilation, plastic laminate fabrication, walk ins, sneeze guards, cafeteria serving counters, hoods, etc.) in electronic PDF format showing all items to be provided under this section of the specifications. Drawings to be submitted for review at 1/2" per foot scale or larger. Upon final review of data, distribute copies to all trades, Owner, Architect, etc. as required.
- B. The drawings shall show all elevations, sections, dimensions, mechanical and electrical requirements, related details of construction, installation and related work which require cutting, close fitting, etc. as required for installation.
- C. Submit proper notifications in writing of any departures from the contract drawings or specifications which may be necessary to permit installation of the equipment. Fabrication should not be started until after final approvals are received and final field measurements are taken.

1.12 MAINTENANCE MANUALS

- A. At time of demonstration, provide to the person in charge of the kitchen a minimum of three bound current copies of kitchen plans, roughing-in drawings, any and all warranties, instructions, parts lists, operating instructions for each piece of mechanical equipment, as built shop drawings, and "Buy-Out" brochures.
- B. Manuals shall include a typewritten list in the front of the manual listing the names, addresses, and telephone numbers of local servicing agencies and manufacturer's representatives for all equipment.

1.13 SAMPLES

- A. Submit all required samples for approval, if required, of all hardware, plastic laminate, paint, etc. before starting fabrication. Other samples shall be supplied as required.

1.14 MEASUREMENTS

- A. Measurements required to size and place the food service equipment shall not be taken from drawings but shall be made at the structure from the actual spaces reserved therefore, and giving due consideration to any architectural, structural or mechanical discrepancies that may occur during construction of the building. Verify size of all of Owners equipment and small wares (dishes, trays, pans, etc.) and Purveyor supplied equipment (urns, soda systems, beverage dispensers, etc.), if applicable. Field dimensions shall be taken at the earliest opportunity so as not to delay deliveries.
- B. Verify in field any and all measurements before doing any work on equipment that may be affected by the physical conditions and be responsible for the correction of same.

- C. Inspect equipment for proper operation prior to relocation. Advise if equipment is defective or needs rework which is not included in the original contract and submit a written quotation for said work.
- D. Coordinate Owners and/or Purveyor supplied equipment (coffee makers, beverage equipment, cash registers, soda equipment, etc.) as required for rough-in data, installation, etc.
- E. Measurements for tight fitting equipment shall allow no more than 1/4" between wall and equipment that shall be trimmed and/or sealed as required.

1.15 WARRANTY

- A. Provide a written warranty for all equipment against defects in workmanship and material for one (1) year from date of substantial completion and acceptance, excluding refrigeration units which shall carry an additional four year warranty and a 10 year warranty on all walk-in panels. This shall cover any replacements and/or repair costs of such defective material, including transportation, labor, and materials for all equipment. This one year free service, warranty and guarantee shall be available within 24 hours of notification on all equipment except refrigeration.
- B. Provide one year free service, warranty and guarantee within 12 hours of notification on walk-in refrigeration and units must be operational within 24 hours after service call.
- C. This warranty is not intended to cover equipment which has been overly abused or items that have not had proper periodic maintenance (door gaskets, uncleaned refrigeration condensers, etc.) during the one year period.

1.16 DELIVERY AND STORAGE

- A. The F.S.E.C. shall furnish all labor, material, equipment, etc. as required to unload and store all equipment.
- B. No equipment shall be delivered to the site unless it has been ascertained that storage space is available.
- C. After verifying field conditions with Architect and/or related trades, the F.S.E.C. may deliver equipment 30 days prior to job installation requirements and/or completion - providing it is properly insured. F.S.E.C. shall make all arrangements to deliver, unload, and store all equipment and shall assume all responsibility for safeguarding the equipment until it is accepted by the Owner.
- D. Unless noted in the item specifications, the G.C. shall remove and store any existing and/or relocated equipment that is removed from the kitchen during the construction period.

PART 2 - GENERAL SPECIFICATIONS - PRODUCTS

2.01 MANUFACTURER'S STANDARDS

- A. It is the intention of these specifications to provide a type of equipment conforming to manufacturer's standards and only minor variations in construction will be accepted, provided that these variations do not detract from the finished appearance, durability, general function or in any way affect general overall size, capacity, strength, etc. of equipment.
- B. Manufacturer's catalog designation of material and/or fabricated equipment used in the following specifications are intended to illustrate and represent the standards which will be required by the owner. Equipment furnished must closely conform thereto in design, construction, capacity, and function to make and model called for. Where such catalog designations are given, the items shall be complete as described and shown in the catalog unless exceptions are in itemized specifications.

- C. When more than one manufacturer is listed in the Item Specification, only one manufacturer shall be acceptable for items of a similar nature (fabrication, cooking equipment, refrigerators, shelving, carts, etc.) to insure uniformity of design, installation, service, etc.

2.02 FABRICATION STANDARDS

- A. Unless noted under itemized specifications or on plans, the following specifications shall govern the construction of all fabricated and buyout equipment and installation and shall apply to the individual item as if it were written therein in its entirety.

2.03 FABRICATED EQUIPMENT

- A. It is required that all custom fabricated items (counters, tables, sinks, dish tables, etc.) described in the plans and specifications, other than by name and catalog number, be constructed of 300 series stainless steel and be manufactured by one fabricator (Metal-Masters Inc, Advance Tabco Co., Kevry Co., Keystone Fabricators Co., LTI Co., John Boos, Pushard Welding, Titan and McCallum Co. are approved fabricators) with the plant, personnel and engineering facilities to properly design, detail, and manufacture high quality kitchen equipment.
- B. All work in the above category shall be standard unit assembly, by one foodservice equipment manufacturer of uniform design, material and finish.

2.04 BACKSPLASHES

- A. Where edges of the top are adjacent to walls, column, equipment or enclosures, they shall be turned up to provide a backsplash which shall be tight fitting (1/4" or less). Unless noted, all backsplashes shall be formed by turning up 10" and flanged back 2-1/2" at 45 degrees and down 1" and attach to wall with 6" by 2" s.s. "Z" clips on 3'-0" centers. Ends of backsplash shall be fitted with closure plates. Weld a full s.s. enclosure panel for exposed rear backsplash.
- B. Tops adjacent to refrigerators, ovens or cabinets shall be turned up 4" with top edges feathered slightly to form a tight fit of 1/4" or less. Seal with mastic compound.

2.05 BOLTS, SCREWS AND RIVETS

- A. All exposed surfaces of equipment shall be free of bolt, screw and rivet heads. Wherever bolts are used to fasten tops and trim to paneling, body of counters and similar equipment, such bolts shall be of an approved type and shall be corrosion resistant metal of the same alloy as the metal to which they are fastened with acorn type nuts to eliminate sharp edges.

2.06 CASTERS

- A. Provide Jarvis and Jarvis Co. or Colson Company No. 33-517-909-NSF 5" diameter adjustable, heavy duty casters with double ball bearing raceways, heavy gauge fork and races and have minimum capacity of 250 pounds per caster. Casters shall be provided with brakes. Wheel shall be non-marking urethane.

2.07 CODES AND SANITATION

- A. All food service equipment under this contract shall meet the requirements and bear the label of the National Sanitation Foundation, Ann Arbor, Michigan. Specifications set forth are considered minimum and are to be superseded by any superior requirements in effect as of this date by the National Sanitation Foundation or the State Health Department. Any differences of opinion on sanitation shall be referred to the State Health Department for arbitration.

2.08 CORNERS

- A. All corners shall be fully rounded and made integral and of the same sheet as the top and rolled edges. Radii of all rolled edges to be equal and rolled 2" diameter at least 180 degrees. Filler pieces or soldering shall not be used in place of all welded, seamless construction.

2.09 CUTTING BOARDS

- A. Provide Richlite 1/2" minimum thick reversible boards as per plan as manufactured by Read Products Inc. when attached to grills or similar equipment, provide s.s. mounting brackets.

2.10 DOORS:

- A. SLIDING DOORS - Sliding doors shall be constructed of 16 gauge s.s. or material listed in the item specifications with roller bearing slides.
- B. SINGLE PAN - Construction, 16 gauge s.s. with 3/4" thick sound deadening fiberglass between the two thicknesses of metal. Back panel to be 20 gauge steel. Door to operate on top hung ball bearing rollers. Bottom edge of doors to be square and fitted with a groove that rides over a s.s. pin at center point.
- C. All doors shall be fitted with stops and locks. Handles shall be die stamped s.s. flush mounted.
- D. HINGED DOORS - All hinged doors for cabinet bodies and enclosed bases shall be double pan construction. Doors shall be flush mounted and be fitted with s.s. piano type full length hinges. They shall be furnished with friction catch and s.s. recessed handles, locks, and two rubber button noise eliminators, one at each corner on handle side.

2.11 DRAWERS:

- A. All drawer inserts shall be Standard-Keil 1480 series or coved corner die stamped out of one piece of 18 gauge s.s. or plastic and shall set loosely in a channel frame so it can be lifted out for cleaning. Top edges are to be flanged out 1/2".
- B. The supporting frame shall be Standard-Keil 1425 or shall be welded steel channel with s.s. drawer face welded to frame so there will be no exposed screws or rivets on the face which shall extend 3/4" out at top and down 3/4" with 1/2" hemmed edge and radius corners to form drawer handle. Provide two rubber button shock stop noise eliminators one on each side of the drawer face at the top.
- C. Provide Standard-Keil 1425-1000 s.s. drawer slides with s.s. ball bearing wheels. Slides and frame to be so designed as to allow full opening of drawer and to be reinforced to support 150 lbs. when fully extended.
- D. Adjustable stops are to be provided for each drawer at the fully open position. Drawers on open base tables shall be enclosed in an 18 gauge housing of steel. Drawer guides are to be sloped to provide self-closing action.
- E. All drawers shall be 20" by 20" by 5" deep except bread drawers which shall be 10" deep.

2.12 FIELD JOINTS:

- A. All field joints shall be welded with rod of same basic composition as sheets or parts welded. Welds shall be free of pits, cracks, cross graining or discolorations and shall be ground and polished to the original finish of the metal. No soldered or bolted joints shall be used unless noted in item specifications and shall be properly sealed and bolted.

2.13 GRINDING AND POLISHING:

- A. All exposed welded joints shall be ground flush with the adjoining material and neatly finished

to harmonize therewith. Services shall be free of depressions. Wherever sheared edges occur, they shall be free of burrs, projections and fins to eliminate all danger of cutting or laceration when the hand is drawn over such sheared edges. Where miters or bull nosed corners occur, they shall be neatly ground to a uniform condition, and in no case will overlapping material be acceptable. All exposed surfaces shall be satin finish except rim which shall be a highly polished and buffed finish. Satin finish shall be comparable to the commercial mill finish known as No. 4 for s.s. No cross graining on equipment is acceptable.

2.14 GUARDS

- A. All machines shall be furnished fully enclosed with guards built in accordance with safety codes and regulations of State or Governmental agency having jurisdiction.

2.15 INTERIOR SHELVES:

- A. All interior shelves in cabinet bodies and enclosed bases shall be 18 gauge s.s. or as called for in the itemized specifications. Turn up on back and ends of shelf shall be 1-1/2" high and coved on 3/4" radius. The front edge shall be turned down 1-1/2" and back 1/2". All shelves shall be rigidly reinforced below to prevent sagging. Provide ferruled cutouts in shelves for drain lines, conduits, etc.

2.16 LEGS - FEET - FRAMES:

- A. All legs and pipe stands for open base tables, dish tables, etc. shall be constructed of 16 gauge s.s. tubing unless noted, with cross rails and braces of the same materials. All joints between legs, under-shelves and cross braces are to be welded and ground smooth.
- B. Cross rails must be supplied to reinforce each leg. Legs anchored to gussets at top only and without cross rails are not acceptable. Pipe stands and frames furnished on all pipe base fixtures shall have legs of 1-5/8" O.D. 16 gauge s.s. tubing, cross rails of 1" O.D. 16 gauge s.s. tubing unless noted.
- C. Top of stand shall be fitted into Standard-Keil 1018 or equal s.s. gussets welded to reinforcing structure on underside of the table top, spaced not over 3"-6" on centers.
- D. All legs shall be fitted with 1012 adjustable s.s. bullet shaped feet with bottom of pipe legs to be finished off smoothly and overlap the stem to provide sanitary fitting and prevent the accumulation of grease or other debris at this joint. Provide 1044 s.s. flange type feet securely anchored for island style counters, sinks, etc.
- E. All pipe legs or vertical members are to be set back from edge of table tops a sufficient distance to offset any interference with workers, walls, columns or other equipment.
- F. Provide Standard-Keil Co. 1067 s.s. 6" adjustable legs with adjustable s.s. bullet foot for fabricated and/or buyout equipment with minimum capacity of 1500 pounds each.

2.17 MATERIALS AND STRUCTURAL SHAPES:

- A. Angles, bars, channels, piping, pipe legs, etc. used shall be uniformly ductile in quality and free of hard spots, runs, checks, and other surface defects. Except as otherwise specified, all such sections shall be Armco or milled steel galvanized by the hot dip process, all free of runs and blisters, uncoated spots or patches. S.S. shall be 18-8 composition (302 alloy) standard with No. 4 finish and polished to 180 grit and welded as previously specified. Provide Dow or Schnee butyl sealant sound deadening between tops and all structural supports or as required.

2.18 NAME PLATES

- A. Each item of equipment shall have a corrosion resistant metal name plate with model number, serial number, name and address of the manufacturer securely fastened to equipment in a

non- conspicuous area. F.S.E.C. and manufacturers shall be allowed one company name plate per kitchen. All mechanical and electrical controls, switches, disconnects, remote compressors, etc. shall be labelled with metal or engraved phenolic plastic signage.

2.19 OVERSHELVES AND WALL SHELVES:

- A. Provide 10" wide NSF 16 gauge s.s. over-shelves or wall shelves unless noted in the plans or item specifications. Provide wall mounted shelves with rear and sides to be turned up square 1" and front edge to have sanitary roll rim. Provide heavy gauge s.s. wall mounting brackets 6" from ends of shelf with maximum of 4'-0" on centers.
- B. Provide all over-shelves with sanitary rolled edges and bull nose corners on all four sides unless equipment is mounted on shelf (microwave, toaster, dishes, etc.) and provide 1/2" turn up at rear for that portion of the over-shelf. Provide s.s. tubular support standards as required for shelf mounted equipment and with provisions for mounting to table or counter top.
- C. Provide all wall backing and/or structural support as required for shelves to support 50 pounds per square foot and coordinate installation of same with trades.

2.20 PAINTING

- A. All galvanized material and black steel shall be thoroughly cleansed of all oil and foreign matter and given two (2) coats of enamel paint as selected.

2.21 ROLLED RIMS AND EDGES

- A. Standard roll rim shall be covered up 3" with 1/2" diameter roll at 180 degrees and bullnose corners.
- B. Square edge shall be turned down 2" at 90 degrees with 3/4" tight hem at bottom.
- C. Marine edge shall be turned up 1/2" on a 45 degree angle and turned down 2" with 3/4" tight hem at bottom.
- D. Wherever table tops are used in connection with sinks, the top shall be fabricated with a 1/2" high raised roll rim spillage edge unless otherwise specified. Top to be integrally raised approximately 1/2" at all edges and then rolled down 2" at 210 degrees with bull nose corners.

2.22 REINFORCED STRUCTURES:

- A. Counter, table, and cabinet framework shall be constructed of steel angles horizontally and channels vertically, made in sections to permit assembly on job with tops field welded. Vertical fronts and sides of cafeteria counters and similar enclosures are to be reinforced with channels on approximately 3'-0" centers to support the tray slide brackets.
- B. Unless otherwise specified, angles or channel frames and similar cross bracing on not over 2'-0" centers to be provided under all counter and table tops to stiffen tops and furnish fastening supports for leg flanges.

2.23 SINKS:

- A. Provide 14 gauge s.s. coved corner sink bowls integrally welded as per plan with welded seamless construction with scored bottom towards a die stamped drain outlet with a Fisher lever handle waste and connected overflow located 1" below drain board and shall not interfere with plumbing, adjacent walls, equipment, etc. Provide 14 gauge s.s. bracket for drain stem. All multiple compartment sinks shall be double walled construction. When sinks are built into enclosed base counters, provide access holes for lever waste handle stem.

2.24 TABLE TOPS:

- A. METAL - Metal table tops to be 34" high and be constructed of 14 gauge 302 s.s. with NSF roll rim construction and bull nose corners unless otherwise noted. All seams and coved corners shall be welded, ground smooth and polished. Provide ferruled access holes for cutouts for water lines, cords and plugs, etc. as required in table tops, counter tops, urn stands, etc. All open base tables shall be reinforced with 12 gauge angles or channels. Provide welded cross angle or channel members shall be placed at each pair of legs with gussets, welded cross rails and feet as previously specified.
- B. One angle runner, running lengthwise shall be provided on tops up to 30" wide; two provided on tops over 30" wide. All tops shall be reinforced so that there will be no noticeable deflection and all reinforcements shall be stud welded to the underside of the top. No rivets or bolts to be used through the top. Provide sound deadening material between tops and reinforcing members and underside of tops. Field joints are to be provided in the top where necessary.

2.25 UNDERSHELVES:

- A. The under-shelves on open base tables, dish tables, etc shall be a solid removable 16 gauge s.s. shelf unless noted in the itemized specifications. Shelf is to be turned up at rear and down on all front and side (down on all island units) edges 1-1/2" with corners at legs cut out and mounted on the support stringers on all four sides. Provide ferruled access holes as required for drain lines, water lines, conduits, etc.

2.26 WALK INS AND REFRIGERATION

- A. Provide NSF and UL approved walk ins as per the item specifications size and shape as per plan by 7'-6" high similar to Kolpak Co. or American Panel Company and furnished with prefabricated modular construction tongue and groove cam lock style panels for walls, ceilings, and floors (unless noted in item specifications or plans) with 4" foamed in place UL-25 flame spread class No. 1 urethane insulation with a minimum "R" factor of 32 and a "K" factor of 0.121. Wall and ceiling panels shall have 0.040 stucco embossed aluminum or 20 gauge 304 s.s. finish and floor panels shall be 0.100 smooth aluminum or 18 gauge s.s. with a rating of 700 pounds per square foot with non-skid floor strips. All panels shall have a ten year guarantee and be installed with a watertight seal. Provide 4" s.s. high coved base molding at all exposed exterior and interior walls securely anchored and sealed as required. Provide ceiling hangers and structural supports as required.
- B. If floorless construction is required, general trades shall provide 4" urethane insulation and vapor barriers for sub floor and tile floor. Equipment supplier shall provide coved floor screeds below wall panels anchored to wolmanized vapor barriers which shall extend up thru and level with finish floor, 6 mil polyethylene vapor barrier, drain holes, etc. as per the manufacturers standard requirements. Equipment supplier shall coordinate installation of walk-ins with trades to assure proper fit of floor recesses, sizes, tile, insulation, grout, vapor barriers, drainage, etc.
- C. Provide one vapor proof light fixture mounted above door for the first 50 square feet of floor space and one additional ceiling mounted fixture for each additional 50 square feet of walk-in floor space to provide a minimum of 35 foot candles at 36" above floor. The light above door shall be inter-wired to pilot light switch and junction box, but all additional lights shall be wired in field by the E.C. with conduit located outside the compartments unless noted.
- D. Provide 36" by 78" in-fitting doors with magnetic gaskets, three C.P. cam lift hinges, s.s. front, 24" high interior aluminum tread plate kick plate, cylinder locks, and Kason automatic door closer. Doors shall be mounted in reinforced panel with FRP or s.s. door jambs with thermal break and thermostatically controlled heater strip, s.s. heavy gauge heated threshold, safety release, digital thermometer, and Curtron Company or equal virgin plastic full width door curtains mounted 6" above door header. Provide non heated relief air vents for all cooler and inter-wired heated vents for all freezer compartments mounted above doors.

- E. Provide removable closure trim with concealed fasteners of same appearance as walk-in exterior from box to all adjacent building walls and ceilings. Provide access panels and louvers as required for service.
- F. Refrigeration systems shall be complete with items as specified or as required to provide a first class system. Should any dispute arise as to the quality of equipment or workmanship, the decision shall rest with the Consultant.
- G. Semi-hermetic compressors shall be Copeland Company "C" line or equal and be mounted on anti-noise, anti-vibration blocks, and be factory mounted in welded angle iron frame and housing with support rails, metal curbs, timed defrost, factory installed control panel, pilot light, disconnects and starter, etc. Compressors to be factory pre-connected for final water/waste and electrical connections by other trades. Freon 12 and 502 systems are not acceptable. F.S.E.C. shall verify that proper ventilation of compressors is obtained.
- H. Coil and/or compressor condensate drain lines shall be furnished and installed by F.S.E.C. terminating with trap over floor drain(s) where shown. Said lines to be neatly insulated with material similar to Armaflex. Any drain line run through a freezer compartment shall also have a heater coil neatly wrapped over the line, prewired by the F.S.E.C. and shall operate continuously. No drain piping shall interfere with shelving within the compartment nor exit through the front of a compartment. All piping shall be concealed where possible.
- I. Coils shall be Bohn Co. or Russell Co. and shall have timed defrost and immersion type thermostat and be connected to compressors by equipment supplier using type "L" copper tubing soldered with Silfos and using R-22/404A freon. Refrigeration lines shall be insulated in same manner and materials as coil and drain lines and shall be concealed where possible.
- J. Expansion valves, pressure controls, strainers, solenoid valves, liquid dryers, adjustable room thermostats, hangers, king and queen valves, heat exchangers, oil separators, pump-down solenoid, low ambient controls, crankcase heater, outdoor shroud, shut-off valves, sleeves, sight glass with moisture indicator and all other items necessary for a complete system shall be furnished and installed by FSEC.
- K. All electrical components within each compartment shall be pre-wired by supplier to junction box on exterior top of compartment. Electrical trades shall make final connections and inter-wire to lights and from walk-in coils to compressor for timed defrost in conduit as required.
- L. After final connections by other trades, the equipment supplier shall evacuate, pressure test, charge, start up and operate system for a period of three (3) days and make all necessary adjustment of controls as required. Operate coolers at 35 degrees and freezers at -5 degrees unless noted on plans. Provide manufacturers 5 year compressor warranties and one year free service available within 12 hour notification. FSEC shall be responsible for all costs if units are not repaired within 24 hours from time of service call.

2.36 WATER INLETS:

- A. Water inlet locations shall be located above positive water level to prevent syphoning of liquid into the water system.
- B. Wherever conditions require water inlet placed below water level, a suitable pressure type syphon breaker or double check valve shall be placed on fixture to form a part of same to prevent back syphoning.
- C. Exposed syphon breakers shall be similar to T&S Co. B-455 chrome plated units with chrome plated piping and slip flanges where exposed.

2.37 MECHANICAL/ELECTRICAL MATERIALS REQUIRED IN FOOD SERVICE CONTRACT:

A. The equipment supplier shall include materials properly labelled and packaged as follows:

B. PLUMBING APPURTENANCES:

1. Check requirements for gas, water, steam, etc. on job before ordering equipment. Information shown on drawings or specifications does not relieve contractor of this responsibility.
2. Faucets, pre-rinse units, lever wastes, vacuum breakers, to be as manufactured by T & S Brass Co. or Fisher Co.
3. Except as otherwise specified, provide each sink compartment with deck type faucet No. B-321, or backsplash Type No. B-231, each with minimum 12" swing spout soft flow. Where multiple sink compartments are provided, faucets may be located between compartments.
4. C.P. brass overflow fittings shall be 1-1/2" tubing fully connected to sinks at factory with lever handle quick opening wastes with tailpieces on each sink compartment, except when otherwise specified, shall be C.P. Model No. 6102 or No. 6100, as manufactured by the Fisher Faucet Co. or T&S Co.
5. Provide all solenoids, C.P. atmospheric or pressure type vacuum breakers with C.P. stems above counter tops, shock absorbers, check valves, mixing valves, gas regulators, etc. required by code or for proper operation of equipment with mounting brackets as required. Valves shall be installed where required, accessible and convenient to the operator.
6. Provide Dormont Co. 1600-KIT-S swivel gas hoses 36" or longer of proper length as required with quick disconnect, ball valve, and 3000 pound coiled restraining device and wall brackets.
7. All steam equipment shall have valves provided with heat resistant handles, traps, gauges, etc. as required for proper operation.

C. ELECTRICAL APPURTENANCES:

1. Check voltage on job before ordering equipment. Information shown on drawings or specifications does not relieve contractors of this responsibility.
2. Except where noted under item specifications, current characteristics for motors 3/4 HP or less, solenoid valves and lighting shall be 120 volt, single phase, 60 cycle, A.C. Unless otherwise noted under item specifications, motors 3/4 HP and over shall be wound for 208/240 volts, three phase, 60 cycle, A.C.
3. Provide 120 volt control circuit on all equipment that operates on voltages on or over 208 volt. All equipment requiring 120 volt control circuits (120/480 volt, 120/208 volt, etc.) shall have transformers pre-wired on equipment.
4. Cords and plugs and receptacles for equipment shall be three or four wire type "S" all rubber coiled retractable style cord with ground as required and shall be equal to Hubbel Co. and match receptacles provided and as best suited for the equipment. Units shall be mounted in NEMA type enclosures as per code with s.s. faceplates and boxes where receptacles are exposed.
5. Thermostats, unless otherwise noted on plans or in the item specifications, shall be as manufactured by Fulton, Powers, Robertshaw, or approved equal, and shall be provided at all equipment (bain-marie, urns, dish machines, hot food table, warming cabinets, etc.) with thermostatic control.
6. Heating elements to be of voltage and phase as specified or as required to suit job.

7. Controls, thermostats, switches, contactors, low water cut off, light fixtures and bulbs, etc., necessary for the installation and proper operation of equipment shall be furnished as required along with all starters and/or motor control switches for the proper function of the equipment specified. Controls mounted on vertical surfaces shall be recessed.
8. Controls that are an integral part of equipment shall be factory installed. Units which are to be separately mounted other than on equipment structure shall be furnished to the E.C. for mounting.
9. Provide properly sized magnetic starters line voltage type with thermal overload relays and reset for normal operation by automatic control or pushbutton station for 208/240 volt control. Enclosures shall be general purpose NEMA type 1, A.C. voltage, unless located outdoors which will require a waterproof enclosure. Remote control motors shall have magnetic starters.
10. Disconnect switches shall be type "S" non-fusible, single throw, heavy duty industrial, quick make, quick break. Circuit breakers equal to Square D or Federal may be used in lieu of above disconnects as per code.
11. Provide equipment with required internal wiring between elements, switches, motors, receptacles, starters, etc. complete to a junction box, disconnect, starter, etc. as required and are to be "left ready" for final connections by electrical trades. All control circuits shall be 120 volt to ground.

PART 3 - GENERAL SPECIFICATIONS - EXECUTION

3.01 INSTALLATION AND MATERIALS:

- A. All work required under this section shall be installed by the proper trades having jurisdiction in this area concurrent with job progress and related field conditions. Such installation shall be under the direction of a competent supervisor. A site inspection is recommended prior to bidding - if applicable.
- B. Provide for the conveyance, uncrating, erection, assembling, setting in place, trim, cutting of holes and ferrules in equipment for piping, drains, electrical outlets, etc. to coordinate installation with other trades, repairing of any damage done to equipment during installation, removal of debris created by installation, startup, testing, and cleaning of all equipment (new, existing, or relocated).
- C. Where necessary for other trades to move this equipment to make final connections, coordinate and assist these trades in moving this equipment and be on the job to carefully level and adjust equipment as the connections are being made. During installation, instruct the trades on connection details and be responsible for meeting the individual equipment manufacturer's connection requirements. Report any infractions of installation procedure in written form.
- D. The fit of all equipment as it joins all walls, floors, and corners shall be tight (within 1/4") to adjacent walls, seal all equipment with General Electric SE-1200 sealing compound and/or s.s. trim molding of proper size with concealed fasteners. The equipment supplier shall inspect the site and advise in writing and/or on shop drawings all necessary building requirements door sizes, etc. to receive the equipment and assure accuracy of fit and installation.
- E. All cabinet bases and pieces of equipment which are to be set on bases or machine platforms shall be set into a sealing compound of color to match the tile mortar. Enclosures, backsplashes, and turn-backs to wall shall be pressed into a ribbon of the same material with the excess wiped out to a radius fillet. Where necessary, and to eliminate shifting and the subsequent breaking of this seal, item shall be anchored to floor and wall with suitable masonry anchors. All equipment with utility connections (island style sinks, dish tables, etc.) shall also be anchored to floor with s.s. flange type feet.

- F. All equipment and materials shall be new, of prime quality, full gauge thickness of compositions indicated by names or abbreviations stated in itemized specifications.
- G. Equipment batteries of one manufacturer are to be pre-fitted at the factory and provide photographic proof of such work.
- H. If equipment is noted as relocated or removed during the construction period, said equipment shall be disconnected and be re-connected by the trades and removed and stored by the trades unless noted in the item specifications. The FSEC will coordinate and supervise this work and label equipment for reuse. The FSEC will reinstall and clean equipment as per the plans and specifications. Existing equipment not scheduled for reuse shall be removed by Owner.

3.02 LIMIT OF OTHER SUBCONTRACTORS/TRADES RESPONSIBILITY:

A. Hood Connections:

1. Note that kitchen grease and/or dishwasher hoods and ducts may or may not be furnished by the FSEC. Refer to the plans and item specifications. The Trades shall make final connections to hood and connect to exhaust fan and make up air unit as indicated. All ductwork shall have welded and/or watertight joints. All roof holes, flashing, structural support, fire rating, and final connections are by the trades unless noted.

B. Plumbing:

1. The Trades shall provide rough-ins and piping with stop valves, elbows, nipples, couplers, traps, waste vents, gas regulators, for water, steam, gas, etc. and make final connections to the equipment unless noted.
2. The Trades shall install equipment accessories (faucets, lever wastes, solenoids, valves, gas hoses, nipples, etc.) furnished by the FSEC.
3. The Trades shall provide water heater and janitors sink unless otherwise indicated on the plans.
4. The Trades shall disconnect and reconnect relocated equipment if applicable.

C. Electrical:

1. The Trades shall provide rough-ins, controls, panels, switches, wall receptacles to match equipment cords and plugs, starters, junction boxes, canopy light and fan switches, conduit, wiring, wall outlets, disconnects, etc. and make final connections to the equipment unless otherwise noted.
2. The Trades shall install equipment accessories (cords, wiring harness, switches, etc.) furnished by the FSEC in conduit as required by code.
3. The Trades shall disconnect and reconnect relocated equipment if applicable.

D. General:

1. If stated in the item specifications, all concrete platforms, bases, etc. will be provided by the trades. Grouting of drip pans and/or floor troughs to be by the trades and coordinated by the FSEC.
2. All required holes and recesses for piping and ducts will be provided by the trades upon

receipt of information by the FSEC as to the location, size, etc. This information is to be provided by the FSEC in adequate time to be incorporated in the work.

3. Unless stated in the item specifications, the trades shall provide all floor recesses, insulated sub floors, tile floors and vapor barriers for walk-ins as noted.
4. If applicable, the Trades shall remove relocated equipment from kitchen and store in adjacent area during Kitchen construction period. The FSEC shall coordinate removal, inspection, storage, labeling, etc. of equipment. The FSEC shall re-install relocated equipment as per plan after construction is completed.
5. Trades shall provide fire rated walls in kitchen for cooking equipment exhaust hoods and non-combustible materials within 18" of top of hood or as required by fire codes.

3.03 TESTING:

- A. After installation of equipment by the FSEC and hook up by the Trades, the FSEC shall inspect, start up, clean, adjust and test all equipment under operating conditions for 48 hours prior to acceptance by Owner. If inspection or test shows defects, such defects shall be corrected and inspection and test repeated. Supplier shall certify in writing to the Owner that all equipment is performing in full compliance with the plans and specifications.

3.04 DEMONSTRATION:

- A. After utility connections to the equipment is completed by other trades, schedule and conduct the inspection and start up and final test of equipment prior to final inspection. Schedule the demonstration with the Owner and perform the demonstration in the presence of the Owner and/or their authorized representative with a minimum of seven days notification to owner.
- B. Before final inspection, remove any and all protective covering from his work and give all parts of all equipment a thorough cleaning and servicing, leaving items free from defects and remove trash from premises.
- C. Provide all required competent personnel for two eight hour periods as instructors to operating and maintenance personnel on the safe and proper operation and maintenance of all equipment. Provide additional instructions up to eight additional hours during the one-year guarantee period as requested by the Owner.
- D. Present all maintenance manuals and as built drawings as previously specified or requested by Consultant. Provide available manufacturers equipment demonstration CD's or DVD's.
- E. The FSEC shall provide one digital color photograph, of each major area of the kitchen and related food service areas (receiving and storage, preparation, cooking, serving, sanitizing, bar, etc.). Kitchen must be in a "clean and polished" condition. Photographs shall be provided to the Consultant in digital format.

3.05 FINAL INSPECTION AND PUNCH LIST:

- A. After installation is completed and tested, notify the Consultant who will review all equipment and submit a repair or punch list of all items that are not in compliance with the documents. All items shall be completed immediately and not to exceed 14 days unless written notice is submitted and approved. If repair times are exceeded, Owner may remedy said repairs at the expense of FSEC.
- B. If repetitive reviewing time (more than one additional inspection trip and/or punch list) is required after the original punch list, the FSEC may be invoiced for this work.

3.06 SCHEDULE OF EQUIPMENT:

- A. The following specifications refer to items of food service equipment on the drawings which shall form a part of these specifications and are binding as written herein, and will indicate the required quantity, size, etc. of each item. If the item specifications exceed the plans or general specifications, the following item specifications will govern. If the foodservice plans exceed the specifications, the plans will govern.

Item Specifications:

Item #101 – Walk-in Freezer - Qty. of 1

Base Manufacturer: Kolpak Co.

Base Model: R-Series

Alternate Manufacturer: Norlake Co.

Alternate Manufacturer: Bally Co.

Alternate Manufacturer: American Panel Co.

Alternate Manufacturer: Imperial/Brown Co.

Alternate Manufacturer: Tafco Co.

Minimum specifications:

1. NSF walk-in sized approximately 7'-9" by 7'-9" and shape as shown on plan by 7'-6" high with aluminum interior and stainless steel exposed exterior finish, aluminum interior ceilings, door heaters, gaskets, pressure relief port, etc. for all compartments. Provide digital thermometer with audio / visual alarm system with dry contactors to connect to building management system, door heaters, gaskets, door threshold, pressure relief port, etc. for all compartments.
2. Prefabricated floor shall be .080 textured aluminum with .75" exterior grade plywood backing throughout and interior ramp. Floor panels shall be 4" thick foamed-in-place rigid polyurethane with an R-Value minimum of 32 and shall utilize cam-locks for assembly. Metal floor surface and plywood underlayment shall be foamed-in-place (not over-laid).
3. Provide standard 34" wide flush mount doors with 18" by 24" heated triple pane viewport, stainless steel front, 24" high aluminum tread-plate interior kick-plate, two cam lift hinges, chrome plated hardware, and have same 4" thick foamed in place UL-25 flame spread rated urethane insulation as walls and ceiling. Provide Curtron Co. Polar Pro USDA Polar Grade self-closing hinged vinyl door curtain with .120" clear door panels and stainless-steel mounting hardware.
4. Furnish one LED light mounted over the door and extra 48" LED lights inter-wired to switch per plan. All lighting shall have a 40 Lumens per Watt efficacy or more including ballast loss.
5. Joints between walk-in and building walls and ceiling shall be closed with filler strips of same appearance as exterior of box with service access panels as required.
6. Provide one 240 Volt 3 Phase system for the freezer. Provide Copeland compressor piped to BTU matched Bohn low profile end mount coil. Freezer shall have 240 Volt 1 Phase timed electric defrost coil. Coil shall be furnished with electronically commutated motors, remote mounted (shipped loose) weather proof time clock for timed defrost, thermostat, solenoid, "P"-trap and expansion valves mounted and wired.
7. The air cooled compressor shall be factory assembled and mounted on heavy duty steel base and be placed on roof with outdoor package in aluminum housing with hinged shroud, head pressure control with flood back, crankcase heater, sight glass, frame mounted dual pressure control, oversize condenser, drier, suction line filter, suction vibration eliminator, oversize receiver with total pump down capacity and king and queen service valves. Provide a pre-wired NEMA-3 control panel with industrial grade fused disconnect, terminal block, magnetic starters, circuit breakers and contactors, defrost timer and pump down switch.
8. Provide approximately 10'-0" of field piped and pressure tested insulated refrigeration lines per compartment to connect compressors to coils. Provide refrigeration with piping, controls, drain lines and heat tape, etc.
9. Provide a 5 Year warranty on compressors and 1 Year free service plan as per G.S.
10. Final connections, structural support, etc. are by Trades.

Item #102 – Utility Cart – Qty. of 2 - Existing unit shall be relocated by the Owner.

Item #103 - Shelving - Qty. of 19

Base Manufacturer: Cambro Co.

Base Model: CPU-72-V4

Alternate Manufacturer: Inter-Metro Co.

Minimum specifications:

1. Provide polymer unit size and shape as per plan.
2. Units inside the cooler and freezer sections to have 63" posts all remaining units shall have 74" posts.
3. Post connectors, traverses and four vented shelf plates.
4. Two swivel and two locking casters.

Item #104 – Walk-in Cooler – Qty. of 1 – Existing Kolpak Co. unit shall be relocated and is a walk-in freezer. After disconnection of the utilities by the Trades, the FSEC shall evacuate and remove the existing refrigeration components, and the freezer door section. FSEC shall convert the entire unit to a cooler with a new medium temperature refrigeration system as shown on the plans. The existing freezer prefabricated insulated factory floor shall be removed and new 1.5" high locking vinyl or "U" channel vinyl screeds shall be furnished and installed. The sloped membrane roof cap and all trim and fasteners shall also be removed.

Minimum specifications:

1. Provide one UL listed 208 Volt 3 Phase system. Provide Copeland compressor piped to BTU matched Bohn low profile end mount coil. Unit shall have 120 Volt air defrost coil. Coil shall be furnished with electronically commutated motor, remote mounted (shipped loose) weather proof time clock for timed defrost, thermostat, solenoid, "P"-trap and expansion valve mounted and wired.
7. The air cooled compressor shall be factory assembled and mounted on heavy duty steel base and be placed on roof with outdoor package in aluminum housing with hinged shroud, head pressure control with flood back, crankcase heater, sight glass, frame mounted dual pressure control, oversize condenser, drier, suction line filter, suction vibration eliminator, oversize receiver with total pump down capacity and king and queen service valves. Provide a pre-wired NEMA-3 control panel with industrial grade fused disconnect, terminal block, magnetic starters, circuit breakers and contactors, defrost timer and pump down switch.
8. Provide approximately 10'-0" of field piped and pressure tested insulated refrigeration lines per compartment to connect compressors to coils. Provide refrigeration with piping, controls, drain lines and heat tape, etc.
9. Provide a 5 Year warranty on compressor and 1 Year free service plan as per G.S.
10. Final connections, structural support, etc. are by Trades.

Item #201 – Trash Bin – Qty. of 2 - Owner's existing equipment to remain in place throughout construction.

Item #201A – Trash Bin – Qty. of 2 – By Owner

Item #202 – Prep Table - Qty. of 1

Base Manufacturer: Eagle Metalmasters Co.

Base Model: YJRN30-SEM-BS

Alternate Manufacturer: Approved Manufacturer as listed in Section 2.03 of the General Specifications

Minimum specifications:

1. 14 Gauge 304 stainless steel table as per G.S. size and shape as per plan by 34" high with 6"

- backsplash.
2. Stainless steel legs, gussets, and adjustable bullet feet.
 3. Marine edge and sound deadened top.
 4. 16 Gauge stainless steel under shelf.
 5. One 20" by 20" by 5" deep roller bearing drawer assembly with stainless-steel or plastic insert and an 18" by 24" white poly cutting board mounted below drawer.
 6. One 16" by 20" by 14" deep coved corner sink with T&S Co. B-3990-01 modular waste drain with connected overflow, and T&S Co. or Krowne Co. 5F-8WLS12 faucet with rear connector kit.
 7. 10" deep "post" mounted stainless steel over shelf mounted 24" above table surface as shown on plan. Shelf support posts shall extend down thru the table backsplash and be securely anchored to the table base.

Item #301 – Spare Number

Item #401 – Hot Food Table – Qty. of 2 - The FSEC shall remove owner's existing equipment from kitchen and place in a storage area as directed by the Owner or Contractor. Upon completion of construction, FSEC to place equipment back in location as shown on the plan. Reconnection of utilities shall be by the Trades.

Item #402 – Utility Counter – Qty. of 2 – The FSEC shall remove owner's existing equipment from kitchen and place in a storage area as directed by the Owner or Contractor. Upon completion of construction, FSEC to place equipment back in location as shown on the plan.

Item #403 – Cold Food Table – Qty. of 2 - The FSEC shall remove owner's existing equipment from kitchen and place in a storage area as directed by the Owner or Contractor. Upon completion of construction, FSEC to place equipment back in location as shown on the plan. Reconnection of utilities shall be by the Trades.

Item #404 – Spare Number

Item #405 – Milk Cooler – Qty. of 2 - The FSEC shall remove owner's existing equipment from kitchen and place in a storage area as directed by the Owner or Contractor. Upon completion of construction, FSEC to place equipment back in location as shown on the plan. Reconnection of utilities shall be by the Trades.

Item #406 – Cashier Counter – Qty. of 2 – The FSEC shall remove owner's existing equipment from kitchen and place in a storage area as directed by the Owner or Contractor. Upon completion of construction, FSEC to place equipment back in location as shown on the plan.

Item #407 – Cash Register/POS – Qty. of 2 – Existing units shall be relocated by the Owner. Reconnection of utilities shall be by the Trades.

Item #501 – Spare Number

Item #502 - Hand Sink - Qty. of 2

Base Manufacturer: Eagle Metalmasters Co.

Base Model: HSA-10-LRS

Alternate Manufacturer: Approved Manufacturer as listed in Section 2.03 of the General Specifications

Minimum specifications:

1. 10" X 14" X 5" deep stainless-steel sink with fully welded side splashes.
2. T&S Co. or Krowne Co. 5F-4WWX05.
3. Rear connector kit.
4. Wrist blades.
5. Soap and towel dispenser shall be provided and installed by the Contractor.

END OF SECTION 11 4000 – FOOD SERVICE EQUIPMENT