

REBID
ADDENDUM NO. 1
TO
CONTRACT DOCUMENTS
AND
TECHNICAL SPECIFICATIONS
FOR
NEW KITCHEN DESIGN
AT
MAMARONECK AVENUE SCHOOL
(MECHANICAL, PLUMBING & ELECTRICAL ONLY)
NYSED #66-07-01-03-0-004-033
BID # 23/24-MUFSD-017

Mamaroneck Union Free School District
1000 West Boston Post Road
Mamaroneck, NY 10543

Telephone No. 914-220-3040

Contact: Ms. Sylvia Wallach
Assistant Superintendent for Business

LAN Job #4.1092.85
August 17, 2023

Michael J. McGovern, RA
NYS #022257

1.0 General: The original contract documents dated **August 2, 2023**, issued to the New York State Education Department (NYSED) for this project are hereby amended as noted in this NYSED addendum which shall become part of said contract documents, as if originally included therein. Bidders must acknowledge receipt of this NYSED addendum and all other addenda on the proposal form when submitting proposals. In case any bidder fails to acknowledge receipt of addenda, his proposal will nevertheless be construed as though it has been received, acknowledged, and the submission of his proposal shall constitute acknowledgment by the bidder of the receipt of same.

This is to advise all prospective bidders that this addendum has been issued to all bidders and that it contains a change in the contract documents.

2.0 Amendments to Specifications:

Section No.	Page No.	Addendum Requirements
01 10 00	All	SECTION 011000 – SUMMARY OF WORK has been revised to clarify the scope of work.
11 40 00	1	SECTION 114000 – FOODSERVICE EQUIPMENT, Item 1.2 has been revised to read as follows: <i>A. The Kitchen Equipment Contractor (KEC) is being hired directly the Owner and is to provide and install all items listed in this section and as detailed on food service drawings.</i> <i>B. Any denotation to specific trade Mechanical Contractor (MC), Electrical Contractor (EC), Plumbing Contractor (PC), etc.) mentioned shall fall under the Combined MEP Contractor.</i>
23 35 33	All	SECTION 233533 – LISTED KITCHEN VENTILATION SYSTEM EXHAUST DUCTS has been revised to clarify the make and model of the exhaust and make-up air ductwork for the kitchen hood.

3.0 Amendments to Drawings:

Drawing No.	Addendum Requirements
A1.01	Drawing and Demolition Key Note #25 has been revised to show trenching by <u>Combined MEP Contractor</u> . Plan #1 has been revised to clarify that trenching shown is to be by <u>Combined MEP Contractor</u> .
M6.01	Detail #8 for fan coil unit hydronic coil piping has been added to drawing M6.01 and clouded w/ revision tag 1.
P2.01	Plumbing venting has been added to plan 1/P2.01 and clouded w/ revision tag 1. Drawing revised to show trenching plan to be performed by <u>Combined MEP Contractor</u> .
P5.01	Plumbing venting has been added to riser 1/ P5.01 and clouded w/ revision tag 1.

4.0 Requests for Information (RFIs):

No. Comment/Response

- 1 Comment: There are no plumbing vents in new work.
- Response: Plumbing vents have been shown on revised drawings P2.01 & P5.01.
- 2 Comment: Please provide the school fire alarm company name & phone number.
- Response: Open Systems Metro
 Charlie Magnotta
 258 Route 117 By-Pass Road
 Bedford Hills, NY 10507
 Phone: 914-241-0057
 Cell: 914-329-4219
 cmagnotta@osmetro.com
- 3 Comment: MC drawings show hydronic piping supplying a new fan coil, it also shows a 3-way control valve. Can you provide us with a piping detail for the coil.
- Response: Detail #8 for fan coil unit hydronic coil piping has been added to drawing M6.01 and clouded w/ revision tag 1.
- 4 Comment: Is this project a single prime or multi prime contract?
- Response: This is a single prime contract for Mechanical, Electrical and Plumbing.
- All references in the drawings and specifications to Mechanical Contractor (MC), Electrical Contractor (EC), and Plumbing Contractor (PC) shall be part of the scope of work for the Combined MEP Contractor.**
- 5 Comment: Who is providing the walk-in freezer, condenser, evaporator and line sets?
- Response: Kitchen Equipment Contractor (KEC) hired by the Owner is providing the walk-in freezer, condenser, evaporator, and line sets as per Food Service drawings and specifications.
- Combined MEP Contractor to provide all electrical and plumbing connections as per the Food Service drawings and specifications.
- 6 Comment: Please confirm the GC is hired direct by the school district.
- Response: General Contractor (GC) the Kitchen Equipment Contractor (KEC) are being hired directly by the District. Combined MEP Contractor to coordinate with GC and KEC.
- 7 Comment: Please confirm this is a single prime combined MC/EC/PC bid.
- Response: This is a single prime contract for Combined Mechanical, Electrical and Plumbing.
- 8 Comment: Please advise what the MC/PC/EC contractors are responsible for.
- Response: Combined MEP Contractor is responsible for all work shown on the Mechanical "M" series, Plumbing "P" series and Electrical "E" series drawings. Combined MEP Contractor is also responsible to review the Architectural "A" series Drawings and Food Services "FS" series drawings for work identified on those drawings to be performed by MC, EC, or PC.

4.0 Requests for Information (RFIs) (Continued):

No. Comment/Response

- 9 Comment: The HVAC drawings specifically M2.01 indicate the MC is responsible for the mechanical work associated with the FS drawings. This conflicts with the FS spec section which states the GC is responsible to hire all necessary subcontractors (EC, PC, MC).
- Response: The Combined MEP Contractor is responsible for all mechanical, electrical and plumbing work associated with the FS drawings. Specification Section 114000 has been revised to reflect this clarification. Combined MEP Contractor to review the Food Service Connected Loads Drawings for final connection requirements.
- 10 Comment: Who is to supply and install the kitchen equipment? Please advise.
- Response: Kitchen equipment shown on Food Service Drawings FS.1 through FS.7 will be supplied and installed by a Kitchen Equipment Contractor (KEC) hired by the owner. The Combined MEP Contractor is responsible to review these drawings and specifications and supply, install, or make any final connections referenced on the drawings.
- Per note #6 on Drawing FS.1.
- ALL PLUMBING, ELECTRICAL, AND VENTILATION WORK, INCLUDING "ROUGH-INS, INTERCONNECTIONS BETWEEN COUNTERS, CONTROLS, SWITCHES, ETC..." AND "FINAL CONNECTIONS" TO THE EQUIPMENT, IS TO BE PERFORMED BY APPROPRIATE TRADES. IT IS NOT PART OF THE KITCHEN EQUIPMENT CONTRACTORS SCOPE OF WORK UNLESS OTHERWISE SPECIFIED.*
- Combined MEP Contractor to review all general Mechanical/ Electrical and Plumbing notes on the Food Service Drawings.
- Combined MEP Contractor to review the "Food Service Connected Loads" Drawings for final connection requirements.
- 11 Comment: Who supplies and installs the condenser / liquid & suction lines for the walk in freezer? Please advise.
- Response: Kitchen Equipment Contractor (KEC) hired by the Owner is providing the condenser / liquid & suction lines for the walk-in freezer as per Food Service drawings and specifications.
- Combined MEP Contractor to provide all electrical and plumbing connections as per the Food Service drawings and specifications.
- 12 Comment: Who is responsible to supply the Captive Aire equipment? Please advise.
- Response: The Captive Aire hood and controls are to be provided and installed by the Kitchen Equipment Contractor (KEC). All hood control interconnections and wiring shall be performed by the Combined MEP Contractor.
- Captive Aire Exhaust Fan KEF-1 and Make-up Air Unit MAU-1 as well as all ductwork shall be provide and installed by the Combined MEP Contractor as reflected on the Mechanical Drawings.

4.0 Requests for Information (RFIs) (Continued):

No.	Comment/Response	
13	Comment:	Who supplies and installs the plumbing equipment on drawing P201, P202, P.501, & P.601? Please advise.
	Response:	All plumbing equipment shown on the "P" Series drawing shall be supplied and installed by the <u>Combined MEP Contractor</u> .
14	Comment:	Who is responsible for the trenching and concrete work? Please advise.
	Response:	The <u>Combined MEP Contractor</u> shall be responsible for trenching and concrete work. Drawings A1.01 and P2.01 have been revised to reflect this.
15	Comment:	Is there any asbestos abatement on the project? Please advise.
	Response:	There is no asbestos abatement in the area of work.
16	Comment:	Who is responsible for solenoid valves on the plumbing drawings? Please advise
	Response:	All plumbing equipment shown on the "P" Series drawing shall be supplied and installed by the <u>Combined MEP Contractor</u> .
17	Comment:	Is the GC responsible for roof penetrations and setting roof curbs?
	Response:	The Owner will be responsible for roof penetrations and setting of roof curbs through their District contracted roofing contractor. However, the <u>Combined MEP Contractor</u> will be responsible for providing all curbs, rails, pitch pockets, etc. and be responsible for marking out the location on the roof for installation by roofer.
18	Comment:	Who is responsible for painting exterior air intake and exhaust duct work along side of building going to roof?
	Response:	The ductwork will be a custom color from the factory, the owner/architect is going to select the color during submittal phase. See comment 2 in Section 5.0 – Clarification below for further information.
19	Comment:	CaptiveAire is listed as a vendor to use for the double wall grease duct and fresh air duct on the exterior of building. We did receive a quote from CaptiveAire and they quoted it unpainted and they don't supply in colors. Please advise if CaptiveAire is still a recommended vendor.
	Response:	Specification 233533 has been revised to clarify the basis of design exhaust and make-up air ductwork for the kitchen hood.
20	Comment:	The specifications do not mention colors for the exterior ductwork. Please clarify.
	Response:	The ductwork will be a custom color from the factory, the owner/architect is going to select the color during submittal phase. See comment 2 in Section 5.0 – Clarification below for further information.
21	Comment:	Can you provide us with a backfill trench detail? Can we reuse the excavated soil for fill?
	Response:	See detail 4/P2.01.

4.0 Requests for Information (RFIs) (Continued):

No.	Comment/Response
22	Comment: Drawings A1.01 and A2.01 shows the new exterior exhaust and fresh air ducts penetrating the building where the windows are being eliminated. Will this be coordinated during construction where we can install the duct work before the exterior wall and infill are done, eliminating core drills? Response: Sequence of installation will be coordinated during construction and brick will either be installed after ductwork or core drilling for new ductwork will be performed under a separate contract by the owner.
23	Comment: Who is responsible for providing the plumbing fixtures listed on the food service drawings, such as the eye wash station. Response: The Kitchen Equipment Contractor (KEC) hired by the Owner is providing all of the fixtures listed on the equipment schedule in the FS series drawings. The <u>Combined MEP Contractor</u> is responsible for providing all of the required plumbing connections per the Food Service drawings and specifications.
24	Comment: Drawing M2.01 equipment schedule shows cooling in the detail but the drawings just show HWS & R feeding the coil. It also shows condensation piping. Where is the cooling/chilled water coming from? Response: The school performs a change-over from hot to chilled water and uses the same 2-pipe system. There is only one coil in the FCU and it is used for both heating and cooling.
25	Comment: Does the scope of work includes the Architectural drawings as well? Response: The scope of work for the <u>Combined MEP Contractor</u> is answered in previous questions and is clarified in the revised Summary of Work Specification section.
26	Comment: Does the scope of work includes the Furnishing and installation of the kitchen Equipment? Response: Kitchen equipment shall be furnished and installed by the Kitchen Equipment Contractor (KEC) hired by the Owner. <u>Combined MEP Contractor</u> to provide all electrical and plumbing connections as per the Food Service drawings and specifications.
27	Comment: Please provide contact information for the BMS controls service contractor. Response: EMF Building Automation Specialists Walter E. Greenwood "Chip" 581 N State Rd, STE 6 Briarcliff Manor, NY 10510-1556, USA Phone: 914-747-1007 Mobile: 914-403-4702
28	Comment: Please provide contact information for the Building's Roofer. Response: The Owner will be responsible for roofing work.
29	Comment: Please provide contact information for the Building's Roofer. Response: The Owner will be responsible for roofing work through their District contracted roofing contractor.

5.0 Clarifications:

No.

1. Sign in sheet for the Pre-Bid Meeting that took place on Tuesday, August 15, 2023 has been made Attachment No. 1.
2. All references in the drawings and specifications to Mechanical Contractor (MC), Electrical Contractor (EC), and Plumbing Contractor (PC) shall be part of the scope of work for the Combined MEP Contractor.
3. The exterior exhaust and supply round ductwork, per M0.01, will be double-walled, internally lined ductwork. Basis of Design is "Selkirk" make, "IPS Z3" model. Per keynote 6 on drawing M2.01, the ductwork will be a custom color from the factory and the color will be chosen by the owner/architect during submittal phase from manufacturer's full range. See updated specification 233533.
4. All electrical conduit running from the new Kitchen to roof mounted equipment shall be run on the exterior of the building, behind/adjacent to the new ductwork, in rigid steel conduit per the Application of Raceways on drawing E0.01. All conduit, supports, fittings, connections, straps, etc. shall be painted per Owner and Architect's color selection.

END OF ADDENDUM NO. 1

Attachments: #1 - Pre-Bid Meeting Sign in Sheet
#2 - Revised Specification Sections 01 10 00, 11 40 00 & 23 35 33
#3 - Revised Drawings A1.01, M6.01, P2.01 & P5.01

SIGN-IN SHEET

NAME (PLEASE PRINT CLEARLY)	COMPANY	PHONE NUMBER	EMAIL ADDRESS
Mark Haiscelski	Delta Electric, Inc.	914-376-5911	mark@deltaelectricinc.net
Tom Paradise	Lynch Rd. 82H	915-357-6537	Anthony @ Joseph Lynch - Co
John A. Wallen	MELOHILL	846 279 7029	John Wallen @ Melohill LLC
Anthony Maffiuto	Mascaron LLC, BEAUTY'S CONTRACTING	845-653-6013	amaffiuto@beautys.com
Shaun Hyer	S&L Plumbing	929-777-5807	shyer@slplumbing.net

SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. **Please note: The current bid is for the combined Mechanical, Plumbing and Electrical Contract Only. The General Construction work will be performed by the District.**

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: **New Kitchen at
Mamaroneck Avenue Elementary School (MAS)
850 Mamaroneck Avenue
Mamaroneck, NY 10543**
- B. Owner: **Mamaroneck Union Free School District (MUFSD)
1000 Boston Post Road
Mamaroneck, NY 10543**

Owner's Representative: Mr. Stephen Brugge
- C. Architect: LAN Associates, Engineering, Planning, Architecture, Surveying, Inc.
252 Main Street
Goshen, NY 10924
- D. The project consists of converting (1) interior vestibule and (2) interior offices to a new cooking kitchen to serve the students at the Mamaroneck Avenue School. The scope of work **under this contract** consists of the following:
 - 1. Remove and dispose of existing ductwork, blower coil, diffusers, exhaust fan, hangers, hydronic components, etc. and terminate all electrical connections as required.
 - 2. Perform all electrical work required for the construction of a new Kitchen and installation of the kitchen equipment per the contract documents.
 - 3. Provide and install new HVAC equipment, exhaust fans, make-up air unit, ductwork diffusers, registers, grilles, etc. as required per the contract documents.

4. Trenching and infill of the existing concrete subfloor to install new sub-surface piping per the plumbing drawings.
5. Provide and install new round insulated outdoor rated ductwork as specified at the exterior of the building and connect to roof mounted equipment.
6. Provide and install new roof mounted HVAC equipment on curbs/rails as indicated, and flash into existing foam roof with liquid roof flashing.

Additional scope of work that is performed under a General Construction (GC) contract, or Kitchen Equipment Contract (KEC) by the Owner consists of the following:

1. (General Contract by Owner): Remove and/or relocate existing doors, partitions, finish flooring, ceilings, lighting, fire alarm devices, clocks, speakers, display boards, etc. per the contract documents.
2. (General Contract by Owner): Remove and dispose of existing exterior windows and infill existing openings as detailed.
3. (General Contract by Owner): Construct new fire-rated partitions with fire-rated doors to create a vestibule as required by the building code.
4. (General Contract by Owner): Construct chase walls to house plumbing, piping, electrical, etc. as indicated in the contract drawings.
5. (General Contract by Owner): Provide and install new suspended acoustical tile ceiling for use in a kitchen environment.
6. (General Contract by Owner): Provide and install epoxy floor coating on floor, cove base, & walls per the contract drawings.
7. (KEC Contract by Owner): Provide and install new kitchen equipment as specified in the contract documents.
8. (KEC Contract by Owner): Provide and install new walk-in freezer inside new Kitchen, including all appurtenances. Compressor to be installed on the roof.

TYPE OF CONTRACT

- E. Project will be constructed under a single prime contract for Mechanical, Electrical, and Plumbing.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 114000 – FOODSERVICE EQUIPMENT

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work of this Section shall conform to the requirements of the Contract Documents including drawings and general provisions of the Contract, General and Supplementary Conditions and Division 01 Specification Sections.

1.2 BIDS

- A. **The Kitchen Equipment Contractor (KEC) is being hired directly the Owner and is to provide and install all items listed in this section and as detailed on food service drawings.**
- B. **Any denotation to specific trade Mechanical Contractor (MC), Electrical Contractor (EC), Plumbing Contractor (PC), etc.) mentioned shall fall under the Combined MEP Contractor.**
- C. Raymond/ Raymond Associates is herein identified as the Food Service Consultant.
- D. Bids must be based on equipment of manufacturers specified; no substitution will be accepted after award of Contract.
- E. Substitutions: When a product or material is specified by name and or model number, as noted in these specifications, such specifications establishes the standard type and quality considered most satisfactory for the particular purpose in the building. The bid proposal therefore should be based thereon, so that all bidders bid under the same conditions. Another product or material of the same type that meets the requirements may be submitted for consideration as a substitute only under the following conditions:
 - 1. Requests for substitution must be submitted in writing at least ten (10) days before the date set for the receipt of bids for review and approval by the design professional. If the substitution is found to be equivalent, all bidders will be notified prior to the receipt of bids.
 - 2. In providing substitution requests, the bidder must prove equivalence of the substitution and furnish detailed specifications and catalog cuts or drawings. Failure to identify exceptions or deviations from equipment specified must be interpreted to indicate that the product offered complies with the specification in every respect.
- F. Owner, Architect and Food Service Consultant reserves right to waive any informality, or reject any or all bids and any parts thereof, or to accept that bid as a whole or part that in his judgment is for the best interest of Owner. All bids to have on Contractor's letterhead itemized cost of each item of equipment, otherwise bid will be rejected.
- G. Custom fabrication, millwork, equipment, etc. must be built by a company continually in business for at least a 5-year period.
- H. Contract documents convey a method of construction for custom fabrication; however this may or may not be the appropriate method based on selected fabricators industry

knowledge and standards. It will be the responsibility of the selected fabricator to interpret and apply appropriate methods of construction for full functionality of custom fabrication.

1.3 WORK INCLUDED

- A. KEC shall coordinate with other trades or sub-contractors in order that whole installation may result in the highest grade possible.
- B. KEC shall provide and install only such valves, traps, faucets, shut-offs, reducing pressure valves, relief valves and other specialty items required within equipment and as hereinafter specified.
- C. KEC shall make all necessary cut-outs and knock-outs where required on equipment to accommodate electrical receptacles, switches or other electrical outlets and equipment, together with such cut-outs as required for passage of gas or plumbing piping, etc.
- D. KEC shall stack and remove rubbish waste material, crating, etc., resulting from work and keep the premises clean at all times. Upon completion of the installation, thoroughly and finally clean all equipment ready for use.

1.4 POWER AVAILABLE

- A. Electric Voltage: 120/208/480 volt, 60 cycle, 1 & 3 ph.
- B. Water Pressure: Typical Food Service Equipment range 25 to 90 PSI, if required, pressure reducing valves provided by Plumbing Contractor.
- C. Water Temperature(s):
 - 1. 110°-120° Fahrenheit max at hand washing sinks, work sinks and preparation sinks.
 - 2. 120°-140° Fahrenheit max at 3-compartment pot sink, dishwashers and hose reel assembly.
 - 3. 110°-120° Fahrenheit max at cooking equipment with faucet assembly.
- D. Gas Pressure: Typical Food Service Equipment range 5" W.C. to 10" W.C., if required, a gas pressure reducing valve at main feed, prior to equipment connection, to be provided by Plumbing Contractor.

1.5 GENERAL CHARACTERISTICS OF EQUIPMENT

- A. Electrically Operated
 - 1. Electrically operated equipment to be listed by Underwriters Labs., Inc.
 - 2. Motors: Up to and including 3/4 horsepower, shall be 120/60/1.
 - 3. Motors: Over 3/4 horsepower, 208/60/3, unless otherwise indicated.
 - 4. Ranges, food warmers, etc., over 2.0 kW, 208/60/1 or 208/60/3, unless otherwise indicated.

5. Electrically heated equipment, etc., 2.0 kW and under, 120/60/1.
 6. 1 ph. electrical plug-in units with 3 wire cords; 3 wire cap.
 7. 3 ph. electrical plug-in units with 4 wire cords; 4 wire cap.
 8. Motor driven equipment: equipped with starting switch.
 9. Motors: equipped with overload protection.
 10. 1Wiring on fixtures, including operating switches and pilots, furnished by Kitchen Equipment Contractor.
- B. Submit in writing to Architect and Food Service Consultant for approval, schedule showing proposed electrical characteristics of each piece of equipment and disconnect means provided.
- C. Punch holes for, and install hood and walk-in cooler/freezer lights and concealed conduits. The interconnection of same, including control switch, wiring, inter-wiring between sections, etc., by Electrical Contractor.

1.6 WORK EXCLUDED FROM THIS DIVISION

- A. The following work is to be performed by other trades or sub-contractors and is not the responsibility of the Kitchen Equipment Contractor. The GC is responsible to hire all necessary sub-contractors.
1. Electrical Contractor
 - a. Make connections to all food service equipment as shown.
 - b. Furnish disconnect switches.
 - c. Interconnecting of all exhaust hood lights, switches, control packages, interfaces, etc. including inter-wiring between sections of exhaust hoods.
 - d. Interconnecting of control switches as required on equipment shown, and all other components which come as part of any equipment shown on plan.
 - e. Interconnecting of any equipment, including, but not limited to, walk-in coolers/ freezers monitoring, exhaust hood monitoring and/ or fire protection monitoring with building management systems.
 - f. Review all manufacturer approved installation methods/ diagrams and comply for proper installation of equipment being furnished.
 2. Plumbing Contractor
 - a. Make hot and cold water, waste and gas connections to all kitchen equipment shown, furnishing all necessary shut-offs, traps, backflow preventers, vacuum breakers, grease traps, drain line runs, etc.
 - b. Install all faucets, pot fillers, filters and pressure regulators as furnished by Kitchen Equipment Contractor.
 - c. Interconnecting of any and all other components that come as part of any other equipment shown.
 - d. Provide floor drains and floor sinks where shown and indirect piping to floor drains and floor sinks as indicated on drawings.
 - e. Review all manufacturer approved installation methods/ diagrams and comply for proper installation of equipment being furnished.

3. Ventilation Contractor
 - a. Furnish size, shape and location of vent collars for exhaust hood and make connections to these collars.
4. General Contractor
 - a. Provide and/or coordinate all work to the floors, walls and ceilings of the space.
 - b. Provide wall blocking where required and as indicated on food service drawings.

1.7 SUB-CONTRACTORS TO KITCHEN EQUIPMENT CONTRACTOR

- A. Fire Protection Contractor for the wet chemical protection system within exhaust hood systems only and Refrigeration Contractor for the remote refrigeration packages for walk-in coolers/ freezers, rack systems, etc. are typical sub-contractors to the Kitchen Equipment Contractor.
- B. KEC to provide the name and addresses of all sub-contractors furnished to Architect/Owner and Food Service Consultant at time of submitting shop drawings. Selection of sub-contractors must be approved by them; and if in their judgment any fail to prosecute work in strict accordance with drawings and contract, after due notice from Owner or his agent, shall discharge same, but this in no way releases Kitchen Equipment Contractor from his obligations and responsibility under the contract.
- C. Every sub-contractor bound by terms and provisions of the contract so far as applicable to his work. Nothing contained herein shall create any contractual relations between any sub-contractor and Owner.
- D. Kitchen Equipment Contractor fully responsible to Owner for acts and omissions of his/her sub-contractors.

1.8 SHOP DRAWINGS, ETC.

- A. Immediately upon award of Contract and within 4 weeks, submit to Architect/Owner and Food Service Consultant, drawings for approval. Submit 1/4" scale rough-in drawings showing locations of plumbing and electrical connections with all requirements indicated at point of connection; use of a legend or numbered connection plan will be cause for drawing rejection. Prior to fabrication, submit to Architect for approval 1/2" scale shop drawings showing plan, elevations and isometric views covering all items of work. Drawings to show dimensions and details of construction, installation and relations to adjoining and related work where same requires cutting or close fitting. Show reinforcement, anchorage, etc., required for complete installation. After correction and approval of above, submit sets for record, then afterwards as many additional copies as required by client.
- B. Submit in same manner as above, drawings showing masonry bases, depressed floors, positions of walls, requirements for ceiling hangers, wall blocking, and any other special conditions necessary for complete and correct correlation of various trades for satisfactory installation of all equipment shown on drawings.
- C. Manufacturer's names, cuts, descriptive data, analysis of tests, rated capacities and other information necessary for approval of standard manufactured articles and equipment furnished to Architect/Owner and Food Service Consultant for approval before ordering or

purchasing. This submission made in same manner as above. All cuts marked with item number, mechanical characteristics, accessories furnished and bound in folders.

1.9 GENERAL

- A. No machine or equipment acceptable from any manufacturer not having had equipment of approximately the same type and design as that specified operating successfully for at least 5 years. Machines installed for test purposes shall not come within the category of successful commercial operation.
- B. Architect/Owner and/or Food Service Consultant privileged to inspect material and fabrication at Kitchen Equipment Contractor's or its sub-contractors factory at any time.
- C. Before proceeding with shop work, Kitchen Equipment Contractor to verify all measurements at premises. Where required dimensions are not immediately obtainable and delay in waiting for these dimensions would cause work to be seriously delayed, the matter shall be referred to Architect for a decision. In obtaining measurements, Kitchen Equipment Contractor shall consider work requirements of other trades and equipment designed and fabricated to provide necessary clearance for surrounding and adjoining work.
- D. Kitchen Equipment Contractor responsible for making any and all necessary adjustments to complete his work in a workmanlike manner, as approved by Architect/Owner.
- E. Dimensions as indicated on drawings and specifications are approximate, and are to be adjusted if and where necessary to suit job conditions and field measurements.
- F. Tops of tables, shelves, tops and exterior panels of cabinets, counters, doors, drainboards, etc., to be constructed of a single sheet of metal. Where size of equipment requires more than 1 sheet of metal, sheets butt joined with joints continuously welded full length. No joints less than 18" from an edge or end of a piece of equipment. In addition, all joints shall have battens or stiffeners welded to jointed material, ground smooth and polished.
- G. Appliances of rigid construction free from objectionable vibration and quiet in operation.
- H. Electrical heating elements shall conform to latest standards of National Electrical Manufacturer's Association and Underwriters Labs., Inc., where applicable standards have been set up by such agencies.
- I. Motors of ample power to operate machines for which designated under full load operating conditions without exceeding nameplate ratings. Horsepower requirements on driven equipment determined by manufacturer, based on normal operation of maximum capacity.
- J. Motors drip-proof, splash-proof or totally enclosed type, having two-hour duty cycle and ball bearings (except small timing motors which may have sleeve bearings). All motors shall have windings impregnated to resist moisture. Motors located where adjacent to deposits of dust, lint, etc., totally enclosed type.
- K. It is the responsibility of the Kitchen Equipment Contractor to supply and mount all electrical outlets, switches, controls, etc. within table/counter back splashes, aprons, panels, etc. and to provide stainless steel cover plates as required. Furthermore, it is the responsibility of the Electrical Contractor, in coordination with the Kitchen Equipment Contractor, to make final interconnections within table/counter interior to junction boxes, outlets, switches, controls, etc. for equipment indicated.

1.10 STAINLESS STEEL (S.S.)

- A. Where S.S. is specified, it shall be Type 304, nickel bearing iron alloy, containing approximately 17.0% to 19% chromium, 8% to 10% nickel, not more than 0.2% carbon, and not more than 2.0% of other alloying elements; designed being austenitic (non-magnetic).
- B. S.S. free from scale with all surfaces polished to a high commercial finish. All welding and exposed welds hereinafter specified, must be ground down and polished smooth to a #4 finish so that no evidence of welding will appear. Unexposed welds on underside of counter or tables ground smooth and treated with an acid solution to remove weld discoloration and oxidization and to arrest corrosion.
- C. Undersides of all counters, work tables, sinks, drain boards, etc., after fabrication, to have one (1) heavy coat of sound deadening material applied as allowed by local codes.
- D. Gauges for sheet iron and sheet metal, U.S. Standard.
- E. Rivets, welds, bolts, screws, nuts and washers to be steel except where brass or S.S. is fastened, in which case they shall be brass or S.S., respectively. Where dissimilar metals are fastened, welds, bolts, rivets, screws, nuts and washers, highest grade metal. Spacing and extent of welds, rivets, bolts and screws such as to insure suitable fastening and prevent bulging of metals fastened.

1.11 SANITATION

- A. All custom built equipment constructed in accordance with standard No. 2, 4 & 7 of National Sanitation Foundation Testing Laboratory, manufactured by a company approved by N.S.F. and carry their stamp of approval. Kitchen Equipment Contractor must have "Registered" numbered seal of N.S.F. approval.

1.12 OPERATING INSTRUCTIONS

- A. Kitchen Equipment Contractor shall leave all items of equipment in good, operating condition and furnish the services of a "qualified" competent manufacturer's representative to instruct Owner's employees in proper use and care of equipment. Representative on call for as long a period as is necessary to assure Owner that such instruction is thoroughly understood.
- B. Kitchen Equipment Contractor shall be responsible for scheduling of equipment demonstrations and/or training and shall provide a detailed list of expected dates, times and manufacturer's representative to be present (in attendance) for each piece of equipment.
- C. Kitchen Equipment Contractor or his qualified manufacturer's representative, thereafter, shall make all necessary calls during warranty period.

1.13 SAMPLES

- A. After Award of Contract, when requested, Kitchen Equipment Contractor shall supply Architect with samples of fabricated equipment, such as corner of table with a rolled or inverted "V" edge, corner of dish table, overshef, drawer assembly, table leg with foot and gusset, or as specifically requested.

1.14 GUARANTEE

- A. Kitchen Equipment Contractor shall guarantee, as part of the bid and/or contract, workmanship, material and equipment for a period of 1 year from date of equipment final install and project turnover to Owner, and shall remedy any defect due to faulty workmanship or materials which may appear within guarantee period.
- B. Manufacturer's operation and maintenance manuals on equipment, etc., turned over to the Owner in duplicate, bound in a folder and marked accordingly.

1.15 1.15 EQUIPMENT CONSTRUCTION AND STANDARDS

- A. Where initials S.S. are used, they refer to "stainless steel;" C.P. refers to "chrome plated;" N.I.C. refers to "not in contract;" G.I. refers to "galvanized iron;" F.D. refers to "floor drain", and F.S. refers to "floor sink."

1.16 WASTES AND OVERFLOWS

- A. Sinks to have the following waste and overflow assemblies:
 - 1. For 1-1/2" NPT: Fisher model 74043 or approved alternate. Lever handle waste outlet with overflow assembly, 3-1/2" sink opening, self-centering stainless steel face flange with flat strainer, 12 gpm max flow rate, stainless steel lever handle with ball, overflow head with stainless steel faceplate and chrome plated cast red brass drain body.
 - 2. For 2" NPT: Fisher model 74043 or approved alternate. Lever handle waste outlet with overflow assembly, 3-1/2" sink opening, self-centering stainless steel face flange with flat strainer, 12 gpm max flow rate, stainless steel lever handle with ball, overflow head with stainless steel faceplate and chrome plated cast red brass drain body.

1.17 WATER INLET LOCATION

- A. Located in all cases above the positive water level to prevent siphoning of liquid into water system. Wherever conditions require water inlet below such level, a suitable type of vacuum breaker shall be placed on fixture and form part of same to prevent such siphoning.
- B. All faucets furnished by Kitchen Equipment Contractor as specified. Traps furnished by Plumbing Contractor.

1.18 PITCH AND DRAINAGE

- A. Wherever a fixture is used with waste or drain outlet, surface shall have distinct pitch towards outlet. Drainboards and tables that contain or adjoin sinks shall have a definite pitch towards sinks. Where necessary, surfaces creased and grooved to give a definite pitch.

1.19 SINKS

- A. #14 gauge S.S. interior corners rounded to 1" radius horizontally and vertically, forming a cove in bottom. All joints butt edged. Sink sizes given, inside measurements.
- B. Bottom of each compartment creased to center and fitted with a rotary drain as described in section 1.16, hereinbefore specified. Waste lever not to protrude beyond body of sink. Sinks to have overflows installed by Kitchen Equipment Contractor.
- C. Overflow to consist of 1-1/2" chrome plated brass strainer plate, fitted in back of each compartment at proper level directly connected to waste outlet with 1-1/2" chrome plated brass pipe.
- D. Back of sink extended integrally approximately 12" above working level, back 2-1/4" on 45° angle towards rear and then flanged down 1" and punched to accommodate faucets.
- E. Front and both ends, unless otherwise specified and shown, finished on top edge, 3" above working level, with 1-1/2" diameter, 180° welded integral roll. Exterior corners rounded to a 2-1/2" radius, all integrally welded.
- F. Sinks and drainboards finished on front and back edges only and left with straight edge on ends, so that drainboards may be welded thereto, forming integral units with top edge of rolled rim curbing formed on one horizontal plane across front to unit though surfaces of drainboards pitched to sinks.
- G. Multiple compartment sinks divided with double wall #14 gauge S.S. partitions, all corners rounded same as corners in sinks, continuously welded in place.
- H. Back, bottom and front of one continuous piece with no overlapping joints or open spaces between compartments.

1.20 SINK BOWL BUILT INTO TABLE TOP

- A. Sink constructed integral with table top #14 gauge S.S. having all interior corners coved vertically and horizontally forming a cove in bottom. To have overflow, lever waste outlet, etc..., as hereinbefore specified for sinks in spec section 1.19.
- B. All joints butt edged and welded, ground and polished, so that no evidence of welding will appear. All sink sizes inside measurements. Table top where shown, punched to receive deck type combination faucets, provided by Kitchen Equipment Contractor.

1.21 FAUCET AND BASKET DRAIN ASSEMBLY

- A. Sinks to have the following faucet assemblies:
 - 1. 3-Compartment Sink, Potwash:
 - a. 1 ea. Fisher model 74306 or approved alternate. Pre-Rinse assembly with 1.3 gpm flow rate or less, splash/ wall mount, 8" centers, add-on faucet 12" stainless steel tubular swing spout with 4" wrist blade handles, 36" flexible gooseneck hose with spray head, stainless steel spring with wall bracket, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Deck mount assembly model 75485.

- b. 1 ea. Fisher model 60798 or approved alternate. Faucet with 2.2 gpm flow rate or less, splash/ wall mount with 4" wrist blade handles, 8" centers, 12" stainless steel tubular swing spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Deck mount assembly model 57665.
- 2. 2-Compartment Sink, Preparation:
 - a. 1 ea. Fisher model 57665 or approved alternate. Faucet with 2.2 gpm flow rate or less, deck mount with 4" wrist blade handles, 8" centers, 12" stainless steel tubular swing spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Splash/ wall mount assembly model 60798.
- 3. Work Sink (Built-in, Welded-In):
 - a. 1 ea. Fisher model 57665 or approved alternate. Faucet with 2.2 gpm flow rate or less, deck mount with 4" wrist blade handles, 8" centers, 12" stainless steel tubular swing spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Splash/ wall mount assembly model 60798.
- 4. Hand Sink:
 - a. 1 ea. Fisher model 58696 or approved alternate. Faucet with 2.2 gpm flow rate or less, deck mount with 4" wrist blade handles, 4" centers, 6" stainless steel swivel gooseneck spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Splash/ wall mount assembly model 62650.
- B. All plumbing fixtures shall be certified CSA, ASME A112.18.1/CSA B125.1, AB1953/HSC 116875, Vermont Bill S152, NSF/ANSI 61 sec 9, annex F and G, NSF/ANSI 372 low lead content, ASTM F2324.

1.22 DRAINBOARDS

- A. #14 gauge S.S. full width of sink carried up approximately 12" at back and where adjacent to wall and finished same as heretofore described for back of sink, and having 3" high curbing at front and ends not adjacent to walls and finished with integral 1-1/2" diameter 180° roll, unless otherwise specified.
- B. Drainboards continuously welded to sinks.
- C. Drainboards 30" long or less shall have 1-1/2" #16 gauge S.S. tubular braces secured at underside near front and welded to S.S. gusset at leg anchor. All others to have legs and cross bracing with full length and width undershelf as specified for tables.

1.23 TABLES WITH S.S. TOPS

- A. Tops of #14 gauge S.S. 1 piece construction with all edges turned down into 2" integral 180° roll with all corners rounded to 2" radius forming a bullnosed corner. Corner welded and polished smooth.
- B. Table tops thoroughly cross braced with 4" x 1" S.S. channel stiffeners #14 gauge welded to underside. All cross braces spaced not over 24" on center.

- C. Table tops adjoining walls or adjacent equipment carried up approximately 6" and returned 1", down 1" at top and ends. Intersections of table top and raised edge coved to 1" radius. Where backsplash is exposed, it shall have finished S.S. back.
- D. It is the responsibility of the K.E.C. to supply and mount all electrical outlets, switches, controls, etc. within table/counter back splashes, aprons, panels, etc. and to provide S.S. cover plates as required. Furthermore, it is the responsibility of the Electrical Contractor, in coordination with the Kitchen Equipment Contractor, to make final interconnections within table/counter interior to junction boxes, outlets, switches, controls, etc. for equipment indicated, if required.

1.24 LEGS AND CROSSRAILS

- A. 1-5/8" O.D. #14 gauge S.S. tubular-type with S.S. bullet shaped feet having minimum vertical adjustment of 1-1/2" without showing threading or adjusting bolts. Feet fully enclosed on bottom. Adjustment of feet by means of a threaded shank attached to foot and screwed into a properly secured threaded member inside of leg. Construction of leg such that it shall fit over shank of foot so no liquid or other material can work their way into legs or foot.
- B. Tops of legs attached to enclosed conical gussets of heavy gauge S.S. Gussets welded to #14 gauge S.S. 4" x 1" channels to underside on which they appear. Crossrails 1-1/2" O.D. #14 gauge S.S. coped and welded to legs approximately 10" A.F.F. or as specified.

1.25 OVERSHELF - TABLE TYPE

- A. #16 gauge polished S.S. with all edges turned down and finished in a 1-1/2" diameter 180° roll - corners bullnosed, welded 1 piece construction.
- B. Shelves supported by 1" O.D. #14 gauge S.S. tubular uprights, tapered at top and flared at bottom, secured to table top with concealed inner tie rods, bolts and nuts. Uprights spaced approximately 42" on center not to interfere with table top proper. When uprights are located in other areas in addition to each end of table then they shall be cantilevered.

1.26 OVERSHELF - WALL TYPE

- A. #16 gauge polished S.S. with back edge turned up 2", remaining ends turned down in 1-1/2" diameter 180° roll with corners bullnosed welded, ground and polished.
- B. Shelves supported by #12 gauge S.S. cantilever brackets. Shelf spaced 1" from walls when in place and secured to same with C.P. toggle bolts. Undersides secured to brackets with concealed welded studs, nuts and washers. Brackets spaced approximately 42" on center.

1.27 UNDERSHELVES

- A. #16 gauge polished S.S. full length and width of table with all edges turned down into 2" wide channel. In way of table legs, shelf notched to fit contour of legs and fitted to same in neat, workmanlike manner to eliminate unsanitary crevices, fully welded, ground and polished.
- B. Undershelves reinforced on underside with welded 4" x 1" longitudinal channels of #14 gauge S.S. where applicable. All signs of welding on shelf surface removed.

1.28 DRAWERS

- A. Of #18 gauge S.S. all interior corners coved to a 1" radius both vertically and horizontally. All welds ground and polished to a uniform finish.
- B. Front of #14 gauge polished S.S. and will extend on both sides of drawer body to conceal slides, corners welded, ground and polished. Space between drawer front and body fully enclosed at bottom, back and both sides by means of a #20 gauge S.S. filler, spot welded to drawer front and body, to provide a fully sealed, vermin-proof enclosure. Drawer front provided with a 5" C.H.G. # P46-1010 S.S. pull handle fastened in place by means of a concealed screws.
- C. Drawer slides of #14 gauge S.S. fitted with 4 case hardened ball bearing rollers. Track attached to drawer is to have upper edge channel shaped to fit contour of roller rim to provide a positive drawer guide and prevent jarring. This drawer track firmly spot-welded to body. Outer track provided with auto stops to lock without the use of tools.
- D. Where specified, drawer provided with removable synthetic carving board. Carving board is to slide into enclosure under drawer made of #14 gauge S.S. and extending across underside of carving board, with both sides turned up and welded to slide assembly. The 2 sides provided with #14 gauge S.S. angles with stops at rear fastened in place 1/8" above top surface of carving board to provide guide and storage compartment when carving board is not in use. Carving board is to measure approximately 21" x 21" x 1" thick.
- E. Tool drawer 20" x 20" x 5" deep, bread drawer 20" x 20" x 10" deep. All drawers to have 4 pin paracentric keyed-alike built-in locks same as sliding and hinged doors. C.P. where exposed.

1.29 POT AND PAN RACKS AND CEILING HANGERS

- A. Unit 24" wide, of length as shown, of 2" x 1/4" S.S. bar throughout. Outer rail to have fully rounded ends of 1 piece all welded construction. Center rail located 12" below outer rail and fastened to same with V-shaped braces of 2" x 1/4" S.S. bar. All joints continuous welds. V-shaped braces spaced not over 60" on center. Racks fitted with removable sliding type S.S. pot hooks spaced 9" on center.
- B. Unit hung from iron structure, ceiling or slab by 1" O.D. #14 gauge S.S. tubing. It shall be flattened, rounded with ends fully welded and fastened to rack by 3/8" round head screws with cap nuts and lock-washers. Top of tubular ceiling hanger welded to #12 gauge S.S. disc approximately 4" diameter that in turn anchors to joists above. Ceiling hangers over 60" in length to have diagonal sway braces of 1" O.D. S.S.
- C. Proper anchorages, etc., installed in iron structure, ceiling joists or slab by Kitchen Equipment Contractor prior to final finish of ceiling. Top rail of unit 90" A.F.F.

1.30 EXHAUST HOOD

- A. Exhaust Hood material, construction, etc. to be in conformance with IMC section 507.
- B. Dimensions approximately as shown on contract drawings and mounted at 80" A.F.F. to underside of hood. Final dimensions to be determined in field by Kitchen Equipment Contractor.

- C. Proper anchorages, etc..., installed in ceiling joists, slab, etc..., by Kitchen Equipment Contractor prior to final finish of ceiling.
- D. Body of #18 gauge stainless steel front, back and sides; straight as indicated on contract drawings. All joints to be flush welded. Where field joints occur, provide a pair of transverse frames, butted together and securely fastened following contour of hood structure.
- E. Bottom rim of hood attached to channel of #14 gauge STAINLESS STEEL with mitered welded corners and butted field joints. Cross section inside of channel to measure approximately 2-1/2" horizontally, flanged upward tightly against interior lining of hood.
- F. Above dishwashing machine, kettles and steamers or non-grease producing equipment, hood provided with sloped baffle at back arranged at 45° angle of #18 gauge stainless steel. Baffles to have sliding dampers of #16 gauge stainless steel mounted in #14 gauge stainless steel channel tracks. Each damper to have stainless steel handle fastened with concealed bolts.
- G. Above ranges, ovens, fryers, griddles, etc. or grease producing equipment, hood provided with built-in filters at back extending full length and arranged at an angle of 45° easily removable without use of tools. Filters to be approximately 20" x 20" x 2" thick, of STAINLESS STEEL and expanded metal construction or as further indicated on contract drawings. Filters set into #14 gauge STAINLESS STEEL filter frame, bottom of which is integrally installed with back of hood and grease gutter for easy cleaning. Quantity and size of openings in plenum chamber as indicated in contract documents.
- H. Hood(s) provided with STAINLESS STEEL hanger brackets, welded to top of hood, spaced not more than 36" on center.
- I. Section of hood below ceiling or soffit, enclosed with vertical facing of #18 gauge STAINLESS STEEL. Panels not to exceed 36" in width, easily removable where required, provided with recessed finger grip or similar. Where panels meet at vertical joints flanged inward 1" to form a hairline joint. Channel extended 2" beyond perimeter of hood and provided with concealed full length angle member of 2" x 2" x 3/16" G.I. with clips for bolting to hanger angles, spaced approximately 36" on center. Hanger angles attached to 2" x 2" x 3/16" angle frame fastened to ceiling slab. Panels held in place at ceiling with 2" x 2" x 1/8" STAINLESS STEEL angle trim all around.
- J. Hood(s) provided with recessed or flush vapor-proof LED light fixtures, approximately 12" X 12" style or 48" strip style, pre-mounted by manufacturer. Light fixture with bulb(s), as provided by specified exhaust hood manufacturer, refer to Part 2 Products. All wiring and interconnections by Electrical Contractor.
- K. All exhaust hood controls, switches, etc... to be mounted @ 48" AFF. This is to be the maximum height allowed.
- L. All wiring and interconnections for controls, switches, fans, solenoid, shunt trips, etc... by Electrical Contractor. This includes any requirements to and from remote panels, switches and control packages.
- M. Must be tested and comply with the most current codes (or per local jurisdiction) UL-710, International Mechanical Code (IMC), and NFPA 96.

1.31 NOT USED

1.32 FIRE PROTECTION SYSTEM

- A. The system shall be a pre-engineered cartridge-operated type R-102 system utilizing Liquid Ansul agent, with a Fixed Nozzle distribution network. It shall be furnished and installed in compliance with UL Standard 1254, UL Standard 300, NFPA 96-2008 and any prevailing statutes or codes including automatic shut-down of all cooking appliances per code section 44 of NFPA 17A-27-2002.
- B. System to provide connection to building Fire Alarm System per NFPA 17A; Section 3-2.1.5.
- C. Fire protection remote pull stations mounted @ 48" AFF, located 10 ft. minimum to 20 ft. maximum from exhaust hood(s).
- D. The extinguishing agent shall be a specifically formulated aqueous solution of organic salts contained in a S.S. tank with 3 gallons minimum capacity, and able to withstand test pressure of 330 PSI. A welded S.S. bracket shall be provided for mounting the tank.
- E. The regulator releases mechanism shall be capable of providing sufficient expellant gas to discharge enough agent to meet the minimum nozzle discharge requirements. The mechanism shall have a visual indicator of "fired" condition. This mechanism shall be capable of being operated by fusible link detection, remote manual release and local manual release. The mechanism should be housed in a S.S. enclosure with cover containing identifications thereon.
- F. Each discharge nozzle to be listed with UL approval for placement and size. Each nozzle shall have a rubber blow-off cap to keep the nozzle tip orifice free of cooking grease build-up. All exposed piping to be chrome plated finish, and there shall be no exposed threads.
- G. Kitchen Equipment Contractor to furnish mechanical (electrical) gas valve, up to 3" in size and coordinate the install/provisions to shut-off all fuel supplies to all cooking appliances beneath Type I exhaust hood upon activation of system. If electrical gas valve is to be utilized, Kitchen Equipment Contractor to furnish reset relay push button.

It is the responsibility of the Plumbing Contractor to install, coordinate and make any provisions necessary for complete operation of gas valve.

It is the responsibility of the Electrical Contractor to furnish and install electrical wiring, relays, etc... and make any provisions necessary for complete operation of gas valve. In addition, Electrical Contractor to furnish and install automatic equipment necessary to shut-off all electric beneath Type I exhaust hood upon activation of system.

- H. Kitchen Equipment Contractor to furnish and install a Class K Fire Extinguisher, dedicated to each room where a Type I exhaust hood is installed.
- I. Upon completion of installation, the installer to perform a wet chemical test or at the time of the test, the authority having jurisdiction may allow the Contractor to use flushing concentrate and water solution. However, whichever is permitted, it must be in compliance with Code. This test shall activate the entire system, except the agent supply tank, which will be substituted by the test tank of like pressure and size. Following a satisfactory test, the original tank shall be replaced. The system shall then be certified to be in working order and all authorities shall be so advised in writing. Provide Owner with copies of all satisfaction/acceptance tests.

- J. The system to be furnished and installed by a factory distributor in accordance with the manufacturer's instructions. This shall include mounting of the system units, manual releases, nozzles, actuating devices, and the running of all pipe and control tubing applicable to the R-102 system. If and when requested, submittal drawings concerning the fire system shall have affixed the seal and signature of a licensed engineer for the State in which they are to be installed. A 1-year service contract and maintenance program to be provided.
- K. Kitchen Equipment Contractor is required to submit a copy of the hood suppression system shop drawing to the local authority having jurisdiction for approval, as well as submission to the Architect. In addition, shop drawings when submitted, must be signed and sealed by an engineer licensed to practice in the State where the system is to be installed.

1.33 DISH TABLES - SOILED AND CLEAN

- A. #14 gauge polished S.S. with exposed edges finished in 3" high curbing with a 1-1/2" diameter, 180° rolled trim at top, corners bullnosed, welded. Where adjacent to wall, top carried up 12" integrally at top and ends. All joints in top welded and free of buckles and weld marks. When applicable, where top (also raised back), adjoins dishwashing machine, same flanged down 1" into machine and secured water tight, backsplash in this area brought forward diagonally to machine to form a baffle. Tops thoroughly cross braced with 4" x 1" channel stiffeners of #14 gauge S.S. and welded to underside. Cross bracing approximately 24" on center, running front to back. All corners in top rounded to 1" radius, vertically and horizontally.

1.34 NOT USED

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1.50 REFRIGERATORS AND REFRIGERATION UNITS

- A. Reach-in refrigerators, freezers, and refrigerated units, as shown unless otherwise specified, furnished by Kitchen Equipment Contractor. They shall meet all requirements as set forth for individual item number and complete with self-contained or remote compressors and motors. Cooling coils blower type, unless otherwise called for, provided with initial charge of approved CFC free refrigerant. Plumbing Contractor

responsible for extending refrigerator drain line, where required, to spill into adjacent floor drain in approved manner. Extended drain line not less than 3/4" I.D. and C.P. or S.S. tubing.

- B. All refrigerated equipment, refrigerators and freezers, whether walk-in or reach-in, started and adjusted to maintain required temperatures, charged with approved refrigerant as required.
- C. All reach-in refrigerators, freezers, hot food warmers, etc., to have keyed-alike locks. Kitchen Equipment Contractor must request this at time of placing order to avoid correction at a later date at Kitchen Equipment Contractor's expense.
- D. Kitchen Equipment Contractor to provide 1 year's free service for all types of refrigerators and refrigeration equipment. Service to include all compressors, unit coolers, controls, etc., to include adjustments and repairs, irrespective of cause, whether mechanical, operational or manufacturing at no additional cost to Owner. Additionally, five (5) year warranty provided on all compressors, parts only or replacement.

1.51 WALK-IN COOLER AND FREEZER

- A. General Description: To be N.S.F. approved units, of size and manufacturer as indicated on contract drawings, 8'-6" high, unless otherwise specified, completely furnished and assembled unit installed in an approved manner. As indicated on drawing, either installed into a 6-1/2" depressed floor area with flush type door sill and floor finish as shown on contract drawings, or installed directly on floor with interior ramp, and pre-fabricated aluminum floor with heavy duty structural underlayment floor, approximately 5,000 pounds per square feet of load. Where pre-fabricated floor with interior ramp indicated, unit to be finished with "First Choice" vinyl safety flooring provided and installed by Kitchen Equipment Contractor. Where depressed floor indicated, doors, floors, etc. to accommodate concrete-tile finished floors, provided and installed by G.C. after all boxes have been set in place. Walk-in freezers to maintain 0° to "minus" 10° Fahrenheit temperature. Walk-In coolers to maintain 35° to 36° Fahrenheit temperature.
- B. Finishes: Unexposed exterior of each unit to be .040 stucco aluminum finishes. All exposed exterior surfaces to be #20 gauge stucco S.S. finish. Interior, except floor, to be .040 stucco white aluminum finish. Floor as noted hereinbefore in spec section 1.51 A.
- C. Insulation:
 - 1. Insulation shall be 4" thick rigid urethane foam, foamed-in-place to bond to inner surfaces of metal pans. Urethane foam to have a thermal conductivity (K factor) of not more than 0.118 BTU/hr./sq. ft. per degrees Fahrenheit/inch, and an overall coefficient of heat transfer (U factor) of not more than .029. The "R" factor shall be 34.
 - 2. (Optional) Prefabricated urethane foam panels shall be supplied with a Class 1 fire hazard classification according to ASTM-E-84 as tested by Factory Mutual System. Panels shall have a flame spread rating of 25 or less and a smoke density of no greater than 450°. Every panel shall bear a certifying Factory Mutual label.
 - 3. * These ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.
- D. Doors: Each walk-in shall be equipped with one standard 34"/36" x 78" hinged-type, flush mounted entrance door bearing the UL seal of approval, or of size as indicated on

drawing. Each door section consists of a heavy reinforced steel "U" channel frame, foamed-in-place to give extra support and rigidity to the frame and to prevent racking, distortion, warping and twisting. Doors to be #20 gauge S.S. interior and exterior. Door and door panel sections to have 1/8" diamond tread kick plates, 36" high on interior and exterior. Walk-in entrance doors shall be equipped with a one-piece perimeter NSF approved PVC accordion type removable gasket. A magnetic core at top and side shall provide positive seal. An adjustable wiper gasket shall be mounted along the bottom edge of door. Door frames shall be provided with an LED light fixture, pilot light and switch assembly, and concealed wiring. Provide #12 gauge reinforced S.S. threshold and heater wire around the full perimeter (freezer door only). All doors hinged as shown, each with heated 14" x 14" "vision" panel.

- E. Standard Hardware: Shall be break-a-way type with cylinder lock and inside safety release handle so door can be opened from the inside even if locked. All latches designed for locking with keyed-alike locks. A positive action hydraulic door closer shall be included to insure gentle closing action of door and insure a positive seal. Hinges shall be cam-lift, self-closing, spring assist with door lift-off capability. Hinges shall be high-pressure zinc die cast with highly polished chrome finish, three per door.
- F. Filler Panels: The "exposed" open area of unit at left, right and top at front and sides neatly trimmed with #20 gauge stucco S.S. filler panels to close space between wall and ceiling. Filler panels between top of walk-in box and finished ceiling not to exceed 12" in height. Filler panels equal to exterior of unit. Top panels to be equipped with louvered sections not less than 40% of total square footage of panel (when compressor units are top-mounted).
- G. Wall Protection: Two rows of #16 gauge S.S. hat shaped rub rails with concealed fasteners; to be provided and installed at all exposed exterior walls. Top of rub rail to align with top of diamond tread kick plate on door and bottom rub rail to be 10" A.F.F. When corners are exposed, provide 6" x 6" x 60" #12 gauge S.S. corner guard.
- H. Lights: Walk-In boxes to be provided with 48" LED light fixtures, Kason model #1810, quantity as shown on plan. The walk-in cooler and freezer to have LED type vapor-proof light, Kason model #1806, with concealed wiring, etc., and toggle switch with pilot light mounted on exterior. Kitchen Equipment Contractor to provide bulbs. It is the responsibility of the Kitchen Equipment Contractor to install light fixtures, provide penetrations in ceiling panels, and seal the penetrations after Electrical Contractor has completed wiring.
- I. Sealants: Kitchen Equipment Contractor shall seal all lines, conduits, tubing, wiring, etc., passing through walls and ceiling of walk-in units with high grade caulking compound, then install S.S. escutcheons where required.
- J. Alarm System: Each compartment shall be protected by Modularm 75LC system with recessed in panel controls. System provided with wireless communicator, mounted at walk-in units, for connection to building network. System shall provide digital readout of ambient compartment temperature(s). The system shall be located in an area as indicated on the contract documents. It shall require 120/60/1 electrical connection through suitable 1/2" conduit. CAT5 cable connection for activation of remote notification equipment will be provided as part of the alarm system. CAT5 cabling provided and installed by General Contractor. Furnish and install identification labels for operating temperatures as required.
- K. Ceiling Support: When split ceilings are required due to ceiling panel span, these ceilings are to be supported by a self-support ceiling structure. The walk-in manufacturer is to provide the ceiling hanger brackets, the steel channels and the bearing steel channels. A detail must be provided on the manufacturer's submittal drawing. Note: When longer

spans are required that exceed self-support capability then suspended ceilings are to be provided with manufacturer's detail.

- L. Flat Membrane Weather-Proof Roof: Shall be supplied for field installation on top of each walk-in that is located outdoors. Membranes to be fabricated from low-shrink polyester fabric coated with a permanent thermoplastic alloy and have a minimum thickness of 35 mil. Membrane shall be fire retardant, resistant to ultra-violet rays and micro-organisms. Membrane to be white in color to reflect maximum heat load from the sun. Fasteners and trim shall be provided to secure the membrane to the ceiling panels and in cases where walk-in is installed against a building; the membrane roof material will be flashed up the building walls by the equipment installation contractor. The manufacturer's detail must be provided on the submittal drawing.
- M. Compressors and Evaporators: Cooler unit, model as indicated on drawings; room air drawn through coil and discharged parallel to ceiling. The coil casing is to be aluminum with a removable drain pan. Drain line from evaporator coil to floor drain as indicated on contract drawings, attached to interior of box with clamps and installed in good, approved, workmanlike manner by Plumbing Contractor. Compressor of the hermetic and/or scroll type, with suction gas cooled motor, designed for operation with approved refrigerant. Unit complete with liquid line drier, shut-off valves, vibration isolators, heat exchanger, dual pressure control and water regulating valve (for water-cooled systems), electrical panel with circuit breaker and magnetic starter. All components and accessories in control box that pertains to the compressor unit only should be factory wired and piped.

For outdoor systems a weather-proof housing, thermostatically controlled crank case heater and low ambient controls for -20°F conditions shall be provided.

Note: Electrical Contractor to provide and install fused disconnect switch where required, as well as conduit and wiring from same to terminals in compressor unit control panel. Also, interconnect conduit and wiring from compressor unit control panel to unit cooler junction box inside walk-in units.

Freezer Unit, model as indicated on drawing, to be electric defrost. The coil casing is to be aluminum with a removable drain pan. Electric heating elements and drain pan heaters. Unit shall include control kit for time initiated temperature terminated defrost plus automatic fan delay. Heat interchanger included. Drain line from evaporator coil to floor drain as indicated on contract drawings, attached to interior of box with clamps and painted to match interior finish; and installed in good, approved, workmanlike manner by Plumbing Contractor. Kitchen Equipment Contractor to install adequate amount of wrap-around, electric heater tape to assure defrosting of drain line, cable lapped not over 1" spacing. Provide Raychem Winter Guard Plus electrical heat tracing model H611050 (type 3), self regulating in temperature, run in parallel, to be designed with a maximum temperature that cannot be surpassed, certified by the manufacturer's representative that the heat trace has been installed and tested in accordance to the manufacturer's specifications. Heater tape connected to electric by Electrical Contractor. After installation and before and after installing the thermal insulation, subject heat to testing using a 2500 VDC megger. Minimum insulation resistance should be 20 megohms regardless of length. The installer shall test for both heating cable bus wires to verify the connection of any splices or tees.

Equipment shall have BTU/hr capacity as indicated on drawing and maintain room temperature of 35° to 36° Fahrenheit, where refrigerator is specified, and 0° to "minus" 10° Fahrenheit, where freezer is specified.

Refrigerant piping to be hard seamless copper tubing, by KEC. Refrigerant lines installed and covered with not less than 1" thick flexible foam plastic insulation applied in

accordance with the manufacturer's recommendations. Refrigeration lines to run from compressor location where shown, above the walk-in units. All lines to be tested free from leaks prior to finish of insulated lines. Condensates drain lines outside of walk-in boxes, similarly insulated with 1/2" insulation, by KEC. Each system shall have suction line filters and vibration eliminators field installed.

Thermostatic expansion valves properly sized to handle evaporator loads. Liquid lines shall have moisture indicating sight glass, drier, and shut-off valve field installed.

The temperature in each walk-in box controlled by means of a thermostat wired to actuate a solenoid valve in the liquid lines with the compressor operation controlled by the low pressure cut-out switch. Thermostats and low pressure controls adjusted to maintain room temperatures specified. Each system cleaned and dehydrated by maintaining a vacuum of 500 microns or lower for a minimum period of 5 hours. The vacuum pump used capable of developing a vacuum of 50 microns with its valve in a closed position. The required operating charge of refrigerant and oil shall then be added and each system tested for performance. All refrigerant lines sized for 1 lb. maximum pressure drop.

It is the purpose of the specification to provide a satisfactory refrigeration cycle, therefore, Kitchen Equipment Contractor must include the competent labor and qualified material to provide the owner with an efficient system.

- N. Mounting Methods: Compressors, when mounted on building roof, to be provided with adequate dunnage/ curbing by Kitchen Equipment Contractor. Dunnage/ curbing installed by G.C. or roofing contractor. Architect to specify dunnage/ curbing details.

Compressors, when mounted on ceiling of walk-in, to be provided with adequate air circulation, service, access, and vibration isolation.

1.52 NOT USED

PART 2 - PRODUCTS

ITEM #1 MILK COOLER – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model SM58HC-S. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Exterior Finish: Stainless Steel
- Interior Finish: Stainless Steel
- Capacity: (16) 13" x 13" x 11" Cases
- 1 ea. Self-contained, cold wall refrigeration
- 1 ea. Single-sided operation
- 1 ea. Electronic control
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #2 EYE WASH STATION, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

Guardian Model G1750P. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Thermostatic mixing valve, TMVG3600LF
- 1 ea. ANSI Compliant identification sign
- Wall backing by General Contractor

Or as manufactured by T & S Brass or Component Hardware.

ITEM #3 HAND SINK W/ INTEGRAL UTILITY – QTY. AS PER PLAN & SCHEDULE

BSI, LLC Model HSIUS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. 304 Stainless steel construction
- 1 ea. Hand sink, section
 - 1 ea. Stainless steel faucet with 6" swing spout and wrist action handles, 1/2" connections
- 1 ea. Integral utility sink section
 - 1 ea. Stainless steel faucet with 6" swing spout and wrist action handles, 1/2" connections
 - 1 ea. Utility sink grate
- 1 ea. Removable side access panels

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #4 S.S. CHEMICAL CABINET – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- To fit below drainboard of Item #5, 3-Compartment Potwash Sink
- Cabinet/ Door to be flush frame design
- Stainless steel integrated handles, horizontal orientation
- Cylinder locks, keyed alike, as required
- Intermediate stainless steel solid shelves, adjustable

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #5 3-COMPARTMENT SINK, POTWASH – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model SCS-34-2028-MOD. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- 1 ea. Modified end connection
- 3 ea. Built-in work sinks, 28" L x 20" W x 14" D
- 3 ea. Waste valve with lever
- 3 ea. Tail piece
- 3 ea. Waste overflow

- 1 ea. Stainless steel pre-rinse assembly with 12" swing spout add-on faucet and wrist action handles, 1/2" connections
- 1 ea. Stainless steel faucet with 12" swing spout and wrist action handles, 1/2" connections
- 1 ea. Stainless steel common bowl skirt
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #6 STORAGE SYSTEM, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

Eagle Group/Metal Masters Model WAL-STOR. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting Height: 50" above finished floor
- 2 ea. Wall grid/mat, WM1842-E, stacked
- 1 ea. Wall uprights, vertical, PR45VU-E
- 2 ea. Shelf, 1448-E
- 2 ea. Shelf Brackets, PR14B-E
- 1 ea. Grid Shelf, 1436WGS-E
- 2 ea. Baskets, WB-E
- 12 ea. Utility Hooks, UH-E
- 1 ea. Epoxy coated finish, entire wall system
- Wall backing by General Contractor

Or as manufactured by Focus or Metro.

ITEM #7 SPARE NUMBER

ITEM #8 RACK SHELF, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

New Age Model 53082. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting height: 56" above finished floor
- Capacity: (6) 20" x 20" Racks
- 1 ea. Vertical storage, 4-1/2" centers
- Wall backing by General Contractor

Or as manufactured by IMC/ Teddy or Aero Mfg.

ITEM #9 S.S. REMOV. RACK GUIDE – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Removable rack guide to fit over sink, Stainless Steel, 12 Gauge
- 1 ea. Integral bracket, undercounter, to hold when not in use

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #10 WAREWASHER, DOOR TYPE, VENTLESS – QTY. AS PER PLAN & SCHEDULE

Jackson WWS Model DYNASTAR HH-E (VER). Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 208/3, Hardwired
- 1 ea. Single point electrical connection
- 1 ea. Corner design application
- 1 ea. Pressure regulator
- 3 ea. Sets of peg racks
- 3 ea. Sets of combination racks
- 6 ea. Vollrath Traex sheet pan racks, TR23
- 1 ea. Built-in hot water booster, 70° rise
- 1 ea. Detergent/rinse aid pumps
- 1 ea. Drain tempering kit
- 1 ea. Ventless exhaust type
- 1 ea. Energy Star® Certified
- Flanged feet bolted to floor

Or as manufactured by Meiko or Champion.

ITEM #11 CLEAN DISH TABLE – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model SCDT-48. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Stainless steel tubular crossrails, side / rear

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #12 FILTER SYSTEM FOR ITEM #10 – QTY. AS PER PLAN & SCHEDULE

Everpure Model EV9797-22. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- For use with Item #10, Warewasher
- 1 ea. Set of replacement filters
- Wall backing by General Contractor

Or as manufactured by Pentair or Antunes.

ITEM #13 RACKS, DRYING – QTY. AS PER PLAN & SCHEDULE

Metro Model MAX4-PR48VX4. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 4 ea. 24" x 48" Shelves with removable, vented inserts
- 4 ea. 74" High uprights
- 2 ea. Cutting board/tray drying rack, MTR2448XEA
- 2 ea. Drop-in Rack, DR48S

- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Eagle Group/Metal Masters or Cambro.

ITEM #14 SPARE NUMBER

ITEM #15 RACK, PAN – QTY. AS PER PLAN & SCHEDULE

New Age Industrial Model 1331. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Capacity: (20) 18" x 26" Pans
- 1 ea. Pan rack slide base, 3" on center
- 1 ea. Aluminum pan stops
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Piper Products or F.W.E.

ITEM #16 PREP. TABLE, 2-COMPARTMENT – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model SCS-30-1620-36RL. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Electrical: 120/1, NEMA 5-15R
- 2 ea. GFCI duplex receptacles mounted in splash, S.S. cover plates
- 2 ea. Built-in work sinks, 20" L x 16" W x 12" D
- 2 ea. Waste valve with lever
- 2 ea. Tail piece
- 2 ea. Waste overflow
- 1 ea. Stainless steel faucet with 12" swing spout and wrist action handles, 1/2" connections
- Stainless steel undershelf, removable
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #17 SPARE NUMBER

ITEM #18 WORK TABLE – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model WTB-30108. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Electrical: 120/1, NEMA 5-15R
- 2 ea. GFCI duplex receptacles mounted in splash, S.S. cover plates
- 2 ea. Work drawer assembly with removable cutting board
- Stainless steel undershelf, removable
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #19 SPARE NUMBER

ITEM #20 POT RACK W/ SHELF, TABLE MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model PRT-3-2496. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting Height: 84" above table top, pot rack
- Mounting Height: 20" above table top, overself
- 1 ea. Middle shelf, 16" wide
- 50 ea. Stainless steel pot-hooks
- Secured thru splash/table top, anchor to structure

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #21 SPARE NUMBER

ITEM #22 REFRIGERATOR, PASS-THRU – QTY. AS PER PLAN & SCHEDULE

Utility Refrigerator Model PT-R-25-SS-2S-2S-D. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Exterior Finish: Stainless Steel
- Interior Finish: Stainless Steel
- Verify door hinging
- 1 ea. Self-contained refrigeration
- 4 ea. Half doors with locks, pass-thru model
- 3 ea. Stainless steel shelves per compartment, top section
- 1 ea. Thermal expansion valve
- 1 ea. Digital temperature control system
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- Adjustable universal pan slides 1-1/2" O.C. to hold 18" x 26" or 12" x 20" pans, bottom section
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or Beverage Air.

ITEM #23 FIRE EXTINGUISHER, WALL MTND. – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model K-CLASS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Wet chemical type, Ansulex low pH agent
- 1 ea. 2.5 Gallon tank
- 1 ea. Wall bracket
- 1 ea. Rechargeable
- Wall backing by General Contractor

Or as manufactured by Ansul or Kidde.

ITEM #24 CART, UTILITY – QTY. AS PER PLAN & SCHEDULE

New Age Model 1440. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 3 ea. Solid shelves
- 1 ea. Push handle, integral
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Piper Products or F.W.E.

ITEM #25 WALK-IN FREEZER – QTY. AS PER PLAN & SCHEDULE

Norlake Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, Hardwired
- Walk-in Freezer Height stainless: 8'-7" AFF
- Exterior Finish:
 - Stucco Stainless Steel, Exposed Panel(s)
 - Smooth Galvalume, Unexposed Panel(s)
- Interior Finish:
 - White Smooth Galvalume, Walls/ Ceiling Panel(s)
 - Smooth Galvalume, Floor Panel(s)
- Pre-formed panels: 4" Thick, polyurethane insulation
- Pre-formed floor panel: 4" Thick, polyurethane insulation with integral 3/4" marine grade plywood
- Interior floor finish: Fully welded vinyl safety flooring
- Interior / Exterior diamond tread kick plate at door section, foamed in place
- 1 ea. Interior ramp
- 1 ea. 36" x 78" Door with vision panel
- 1 ea. Flush mount audible temperature/monitoring system alarm
- 1 ea. Evaporator coil limit switch, mounted in interior door frame
- 1 ea. Removable louvered trim panels to ceiling, accessible

Or as manufactured by Kolpak or Thermal-Rite.

ITEM #26 REFRIGERATION TO ITEM #25 – QTY. AS PER PLAN & SCHEDULE

RDT-Polarcraft Model PCL030ZCT3A with BEL0080. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 208/3, Hardwired, compressor unit
- Electrical: 208/1, Hardwired, evaporator coil
- Refrigeration: R-448A
- Refrigerant line maximum run distance, 100 feet
- 1 ea. Smart Controller, no wiring between compressor/ evaporator
- 1 ea. Evaporator coils mounted within walk-in box, suspended from ceiling
- 1 ea. Compressor units mounted on building roof
- 1 ea. Dunnage rack, rails or curb for compressor unit

- 1 ea. Weatherproof cowl
- 1 ea. Winterized controls

Or as manufactured by ColdZone or Omni-Temp.

ITEM #27 SAFETY FLOORING, FULLY WELDED – QTY. AS PER PLAN & SCHEDULE

HCH Sales & Marketing Model PROTECT-ALL. Unit to be installed where shown on drawings. Flooring to be applied throughout walk-in boxes, including interior ramp, as detailed on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Sheet Material: 5' x 8' Dimensions, 1/4" thick minimum
- Color Selection: Dark Gray
- Finish Selection: Top Surface, Stipple
- Aluminum Edge Flashing: Cove cap mechanically fastened to wall over top of wall board
- Proper bonding agent, 2-Part Epoxy Adhering Agent
- Seams to be heat welded
- Stainless steel Corner Edge Guards mechanically fastened on all outside corners
- Stainless Steel Transitions
- Stainless Steel Rings at all Floor Drain/Sinks, if applicable
- Ten year warranty

Or as manufactured by Altro Stronghold or Titan.

ITEM #28 SPARE NUMBER

ITEM #29 STORAGE SHELVEING, STATIONARY, 18"W – QTY. AS PER PLAN & SCHEDULE

Fermod Model 6611/R1. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 4 ea. Shelves with removable, vented inserts
- 4 ea. 71" High uprights
- 1 ea. Tool free shelf adjustment
- Clear corner assemblies where required

Or as manufactured by Metro or Cambro.

ITEM #30 STORAGE SHELVEING, STATIONARY, 18"W – QTY. AS PER PLAN & SCHEDULE

Fermod Model 6611/R1. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 4 ea. Shelves with removable, vented inserts
- 4 ea. 71" High uprights
- 1 ea. Tool free shelf adjustment
- Clear corner assemblies where required

Or as manufactured by Metro or Cambro.

ITEM #31 REFRIGERATOR, REACH-IN – QTY. AS PER PLAN & SCHEDULE

Utility Refrigerator Model R-60-SS-4S-D. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Exterior Finish: Stainless Steel
- Interior Finish: Stainless Steel
- Verify door hinging
- 1 ea. Self-contained refrigeration
- 4 ea. Half doors with locks
- 3 ea. Stainless steel shelves per compartment, top section
- 1 ea. Thermal expansion valve
- 1 ea. Digital temperature control system
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- Adjustable universal pan slides 1-1/2" O.C. to hold 18" x 26" or 12" x 20" pans, bottom section
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or Beverage Air.

ITEM #32 HOLDING CABINET, HEATED – QTY. AS PER PLAN & SCHEDULE

F.W.E. Model HLC-1826-8-8. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-20P
- Capacity: (32) 18" x 26" or (64) 14" x 18" pans
- Verify door hinging
- 2 ea. Field reversible door
- 1 ea. Rear push handle
- 1 ea. Fixed rack, 1-1/2" spacing
- 1 ea. Split cavity design
- 2 ea. Adjustable thermostat
- 1 ea. Perimeter bumper
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Cres Cor or Metro.

ITEM #33 OVEN, CONVECTION, GAS – QTY. AS PER PLAN & SCHEDULE

Garland Model MCO-GS-20-ESS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Electrical: 120/1, NEMA 5-15P
- Gas: 3/4" Rear Connection, 120 MBtuh
- Manifold gas line for double unit
- 1 ea. Pressure regulator
- 1 ea. Electronic ignition
- 1 ea. Solid state controls
- 1 ea. Stainless steel exterior bottom
- 1 ea. Stainless steel back enclosure, top/bottom

- 1 ea. Extra oven racks
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable
- 1 ea. American Gas Association (AGA) compliant
- Energy Star® Certified
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Southbend or American Range.

ITEM #34 RANGE, HEAVY DUTY, GAS – QTY. AS PER PLAN & SCHEDULE

Garland Model MST44R-E. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Gas: 1" Rear Connection, 184 MBtuh
- 1 ea. Pressure regulator
- 1 ea. Electronic spark ignition
- 1 ea. 24" High stainless steel riser with 12" W x 34" L tubular overshef
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable
- 1 ea. American Gas Association (AGA) compliant
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Southbend or American Range.

ITEM #35 SPARE NUMBER

ITEM #36 STEAMER, ATMOSPHERE – QTY. AS PER PLAN & SCHEDULE

Accutemp Products Model N61201E DBL Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: (2)120/1, NEMA 5-15P
- Gas: 1/2" Rear Connection, 60 MBtuh
- Gas: 1/2" Rear Connection, 60 MBtuh
- Capacity: (6) 12" x 20" Pans per compartment
- Verify door hinging
- 1 ea. Pressure regulator
- 1 ea. Double unit, stacked
- 1 ea. Digital controls
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable
- 1 ea. Stainless steel stand with casters, SNH-21-01
- 1 ea. American Gas Association (AGA) compliant
- No filtration system required

Or as manufactured by Groen or Cleveland Range.

ITEM #37 S.S. WALL PANEL(S), 172"L – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as

further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Stainless steel panels, evenly sized, 20 Gauge
- Installed from top of coved base to underside of hood, entire length
- Hairline joints sealed with S.S. trim strips
- Secured to wall with heat resistant mastic

It is the responsibility of the Kitchen Equipment Contractor to coordinate and make all appropriate cut-outs in paneling based on utility requirements in this location and apply appropriate stainless steel trim strips, caps, gussets, etc...

Or as manufactured by Caddy or Accurex.

ITEM #38 REFRIGERATOR, REACH-IN – QTY. AS PER PLAN & SCHEDULE

Utility Refrigerator Model R-30-SS-2S-D. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Exterior Finish: Stainless Steel
- Interior Finish: Stainless Steel
- Verify door hinging
- 1 ea. Self-contained refrigeration
- 2 ea. Half doors with locks
- 3 ea. Stainless steel shelves per compartment, top section
- 1 ea. Thermal expansion valve
- 1 ea. Digital temperature control system
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- Adjustable universal pan slides 1-1/2" O.C. to hold 18" x 26" or 12" x 20" pans, bottom section
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or Beverage Air.

ITEM #39 EXHAUST HOOD, TYPE I – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Construction: 100% 430 stainless steel
- Filters: Stainless steel captrate solo with hook
- Insulation: Integral air/ insulation barriers at perimeter and top, 0" clearance to combustibles
- Structural front panel, insulated
- Wall / Island canopy hood, length/ size as per contract documents
- 2 ea. Front perforated supply plenum (PSP) with built-in 3" back standoff
- Insulation for PSP housing, as required
- 6 ea. LED lights with bulbs
- Stainless steel field wrap, approximately 18" high on all exposed sides
- Adjustable exhaust air volume control damper

- Hood Control Panel Package:
 - EMSplus11 modulating energy management system with smart controls
 - Built-in VFDs
 - Duct Temperature Sensors in all risers
 - Room Temperature Sensor
 - Configurable through Touch Screen Interface
 - EMS Duct Thermostat
 - INVERTER DUTY THREE PHASE MOTORS REQUIRED

Or as manufactured by Caddy or Accurex.

ITEM #40 SUPPLY PLENUM, MAKE-UP AIR – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Included as part of Item #39, Exhaust Hood

Or as manufactured by Caddy or Accurex.

ITEM #41 EXHAUST HOOD, CONTROL PANEL – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Included as part of Item #39, Exhaust Hood

Or as manufactured by Caddy or Accurex.

ITEM #42 SPARE NUMBER

ITEM #43 FIRE PROTECTION SYSTEM – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model UL-300 (R-102). Unit to be installed where shown on drawing in strict accordance to that described in General Specifications. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, Hardwired
- Provide connection to building Fire Alarm System
- 1 ea. Gas valve, up to 3", size to be verified
- 1 ea. Reset Relay Push Button
- For the protection of equipment beneath Exhaust Hood, Item #39

Or as manufactured by Caddy or Accurex.

PART 3 - EXECUTION

3.1 GENERAL RELATED CONDITIONS

- A. In each item of equipment hereinafter specified under the "Equipment Schedule," these specifications shall only identify each respective item by name and model number, as well as list various component parts/ accessories provided for same.

- B. Therefore, it shall be intended that these respective items and their component parts shall be of material (mounted where applicable) constructed and furnished in strict accordance to that described in the general specifications for these items and integrally constructed where applicable.
- C. It shall also be intended that where buy-out (pre-fabricated) items are specified, same shall be definitely furnished with all the accessories as normally furnished by manufacturer for these items. Also in strict accordance with current manufacturer's engineering data sheet for each respective item.
- D. Should no list or description be provided for various component parts/ accessories, the Kitchen Equipment Contractor is responsible to provide required components for full and proper operation of said equipment.

3.2 EXAMINATION OF PLANS AND SPECIFICATIONS

- A. Prospective bidders for this work must examine these plans and specifications carefully before bidding, and must request from Architect and/or Food Service Consultant in writing for an interpretation or correction of every apparent ambiguity, inconsistency or error therein. If necessary, such interpretation or correction shall be issued in writing as an addendum.

3.3 SPECIAL NOTES

- A. It shall be the responsibility of Kitchen Equipment Contractor to make as many visits to the job site as is necessary and to keep up to date with progress made in field on the installation of all necessary rough-in to adequately and properly operate and accommodate all equipment furnished by said Contractor and as shown on drawings. Include this service in bid.
- B. Kitchen Equipment Contractor to cooperate with all trades so that the end results of his/her work will be a satisfactory, approved and accepted installation. Written reports of each visit shall be sent promptly to the Architect and/or Food Service Consultant.

3.4 COORDINATION

- A. Procedure of construction is of paramount importance in executions of this project. Kitchen Equipment Contractor to carry on his/her work so that no delay in his/her operations or those of any other contractors occurs at any time.
- B. Kitchen Equipment Contractor to verify with Architect and/or Food Service Consultant as to opening date of the food service area(s), and schedule his/her fabrication and purchasing of equipment so that all will be in readiness, installed, connected, tested, demonstrated, etc., in ample time prior to the scheduled opening date.

3.5 DELIVERY AND INSTALLATION

- A. Shall mean and intend that Kitchen Equipment Contractor shall deliver and assemble all equipment of contract in 1 piece in required locations in building, ready for water, waste, gas, electric and ventilating connections required by other trades.
- B. Any pieces of equipment may be delivered sectionally, but all working surfaces butt-welded, ground and polished on premises so that upon completion, such item of

equipment will have true, smooth, even and continuous surfaces. Butt joining and filling with solder not permitted.

- C. Kitchen Equipment Contractor must verify door sizes, delivery platform, elevator size, etc., effecting delivery to food service area(s) for all items of equipment.

3.6 RESERVATIONS AND CONDITIONS

- A. It is the intent of this specification to complete the installation of all equipment covered herein in all phases ready for operation. Contractor shall carefully examine the plans and specifications for building construction contracts and determine therefrom the extent of his operations in all respects. All labor and materials not included in building construction contracts necessary to accomplish this intent are hereby included in this contract.
- B. Kitchen Equipment Contractor shall attend job meetings when required for purpose of coordinating his/her work with other trades.
- C. All equipment shall be received at the building fully protected. It will be the responsibility of the Kitchen Equipment Contractor to protect the equipment until completely installed and accepted.

3.7 NOT USED

END OF SECTION

SECTION 233533 – LISTED KITCHEN VENTILATION SYSTEM EXHAUST DUCTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Listed kitchen hood exhaust grease ducts.
 - 2. Access doors.
 - 3. Exterior make-up air duct.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for listed grease ducts.
- B. Shop Drawings: For listed grease ducts.
 - 1. Include plans, elevations, sections, and attachment details.
 - 2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Detail fabrication and assembly of hangers and seismic restraints.

1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

1.5 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel," for hangers and supports.
 - 2. AWS D9.1/D9.1M, "Sheet Metal Welding Code," for shop and field welding of joints and seams in listed grease ducts and field-fabricated grease ducts.

PART 2 - PRODUCTS

2.1 LISTED GREASE DUCTS

- A. Manufacturers: Subject to compliance with requirements, provide a comparable product by one of the following:
1. Selkirk
 2. Captive Aire
 3. Or Approved Equal
- B. Furnish and install double-wall, factory-built grease duct for use with type I kitchen hoods, which shall conform to the requirements of NFPA 96. Duct products shall be ETL listed to UL-1978 and UL-2221 for venting air and grease vapors from commercial cooking operation. Provide "Selkirk" model IPS Z3 (or Approved Equal) to be used for exterior grease duct applications and installed in accordance with these instructions and NFPA 96; standard for ventilation control and fire protection of commercial cooking operations. Double wall grease ducts shall be listed for a continuous internal temperature of 500°F and intermittent temperatures of 2000°F.
- C. The U.L. listed insulated grease duct shall be certified for zero clearance to combustible material per UL 2221 with a 2 hour fire rating and have a 1 hour fire rating per ASTM-E2336. Hourly ratings are met with use of factory fire stop at necessary floor/wall penetrations.
- D. The double wall exhaust system shall have a 304 stainless steel inner liner (20 ga minimum) and an aluminized steel outer jacket (24 ga minimum). The materials and construction of the modular sections and accessories shall be as specified by the terms of the product's U.L. listing.
1. 10 pound ceramic fiber insulation between the inner liner and outer jacket shall be a nominal three inches thick.
- E. The outer jacket shall be protected by a minimum of one base coat of primer and one finish coat of corrosion resistant paint suitable for outer jacket skin temperatures of the given application. The paint shall be completed in the factory and the color will be chosen by the owner/architect during submittal phase from the manufacturer's full range.
- F. This exhaust system shall be designed and installed to be liquid tight and thus prevent leakage of grease and/or grease laden vapors. Gaskets and sealing material shall be rated at 1500 Deg F minimum.
- G. Inner pipe joints shall be securely connected and sealed with factory supplied over-lapping V-bands and appropriate sealant as specified in the manufacturer's installation instructions.
- H. Each system shall be designed to provide access for inspection and cleaning of each change of duct direction, permit drainage of grease residue through a duct section, enable the system to allow for the thermal expansion and allow various types of fire suppression equipment to be integrated into the grease ductwork.
- I. Hood Connectors: Constructed from same material as grease duct with internal or external continuously welded or brazed joints.
- J. Accessories: Tees, elbows, increasers, terminations, adjustable roof flashings, storm collars, support assemblies, thimbles, firestop spacers, and fasteners; fabricated from similar materials and designs as vent-pipe straight sections; all listed for same assembly. Include unique components required to comply with NFPA 96 including cleanouts, transitions, adapters, and drain fittings.

- K. Grease Duct Supports: Construct duct bracing and supports from non-combustible material.
 - 1. Design bracing and supports to carry static and seismic loads within stress limitations of the International Building Code.
 - 2. Ensure that bolts, screws, rivets and other mechanical fasteners do not penetrate duct walls.
 - 3. Provide duct saddle supports spaced max. 5'-0" and at all changed in direction
- L. Comply with ASTM E 2336.
- M. Factory Tests: Test and inspect fire resistance of grease duct system according to ASTM E 2336.

2.2 ACCESS DOORS

- A. Manufacturers: Subject to compliance with requirements, provide a comparable product by one of the following:
 - 1. Selkirk
 - 2. Ductmate
 - 3. Or Approved Equal.
- B. Description: Factory-fabricated, -listed, and -labeled, double-wall personnel and maintenance access doors tested according to UL 1978 and rated for 500 deg F continuously, or 2000 deg F for 30 minutes; with positive or negative duct pressure and complying with NFPA 211.
 - 1. Construction: 0.0625 inch ASTM A 666, Type 304 stainless-steel inner shell and aluminized steel outer cover with two handles.
 - 2. Fasteners: Stainless-steel bolts and wing nuts.
 - a. Ensure that bolts do not penetrate interior of duct space.
 - 3. Maintenance Access Door Dimensions: 7 x 7 inches.
 - 4. Personnel Access Door Dimensions: 22 x 20 inches.
 - 5. Door Label: Mark door with uppercase lettering as follows: "ACCESS PANEL. DO NOT OBSTRUCT."

2.3 EXTERIOR MAKE UP AIR DUCT

- A. Manufacturers: Subject to compliance with requirements, provide a comparable product by one of the following:
 - 1. Selkirk
 - 2. CaptiveAire
 - 3. Or Approved Equal.
- B. Furnish and install double-wall, factory-built duct for use of make-up air. Duct shall match requirements of Section 2.1 in this specification. Color and material shall match exterior exhaust duct as described in Section 2.1.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Coordinate installation of roof curbs, equipment supports, and roof penetrations.
- B. Coordinate connections to kitchen exhaust hoods with requirements in Section 233813 "Commercial-Kitchen Hoods."
- C. Coordinate connections to exhaust.
- D. Comply with minimum clearances from combustibles and minimum termination heights according to product listing or NFPA 211 and UL 2221, whichever is most stringent.
- E. Install airtight personnel and maintenance access doors.
- F. Seal between sections of grease exhaust ducts according to manufacturer's written installation instructions, using sealants recommended by manufacturer.
- G. Connections: Make grease duct connections according to the International Mechanical Code.
 - 1. Grease duct to exhaust fan connections: Connect grease ducts to inlet side of fan using flanges, gaskets, and bolts.
 - 2. Grease duct to hood connections:
 - a. Make grease duct to hood joints connections using internal or external continuously welded or brazed joints.
 - b. Make watertight grease duct to hood joints connections using flanges, gaskets, and bolts.
- H. Support ducts at intervals recommended by manufacturer to support weight of ducts and accessories, without applying loading on kitchen hoods.
 - 1. Securely attach supports and bracing to structure.
- I. Grease Duct Enclosures: Comply with requirements of the International Building Code and ASTM E 2336.
- J. Repair damage to adjacent materials caused by listed kitchen ventilation system exhaust ducts installation.

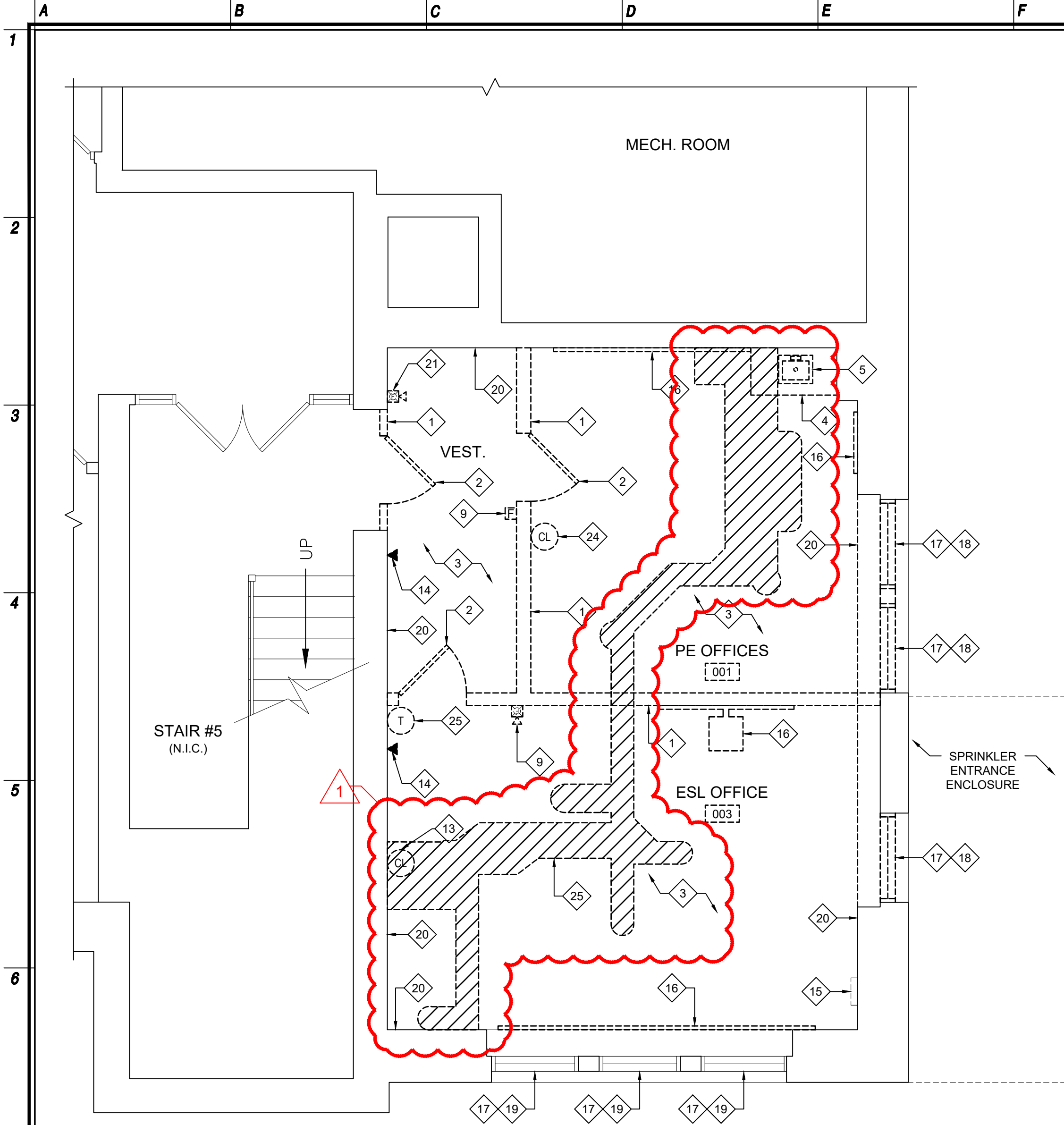
3.3 FIELD QUALITY CONTROL

- A. Perform air leakage test before concealment of any portion of the grease duct system.
 - 1. Notify Owner a minimum of two days before test is performed.

3.4 WARRANTY

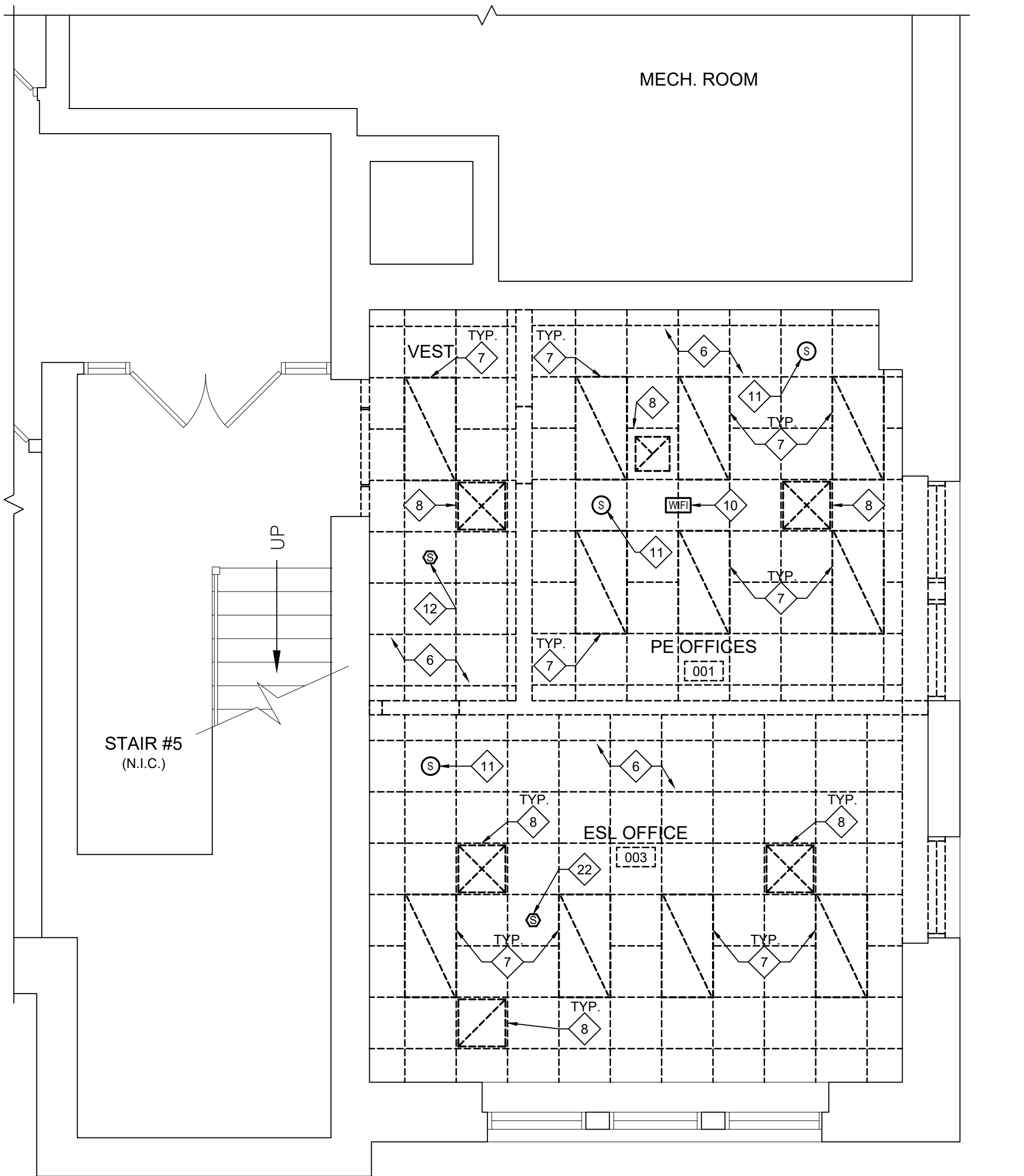
- A. The exhaust system shall have a limited lifetime warranty against functional failure due to defects in material and manufacturer's workmanship from the date of installation.
- B. The manufacturer shall provide "to scale" drawings depicting the actual layout. The exhaust system shall be installed as designed by the manufacturer and in accordance with the terms of the manufacturer's warranty and in conjunction with sound engineering practices.
- C. The factory built modular exhaust system shall be furnished by a vendor organization that assures design, installation, and services coordination. As well as, providing "in-warranty" and "post-warranty" unified responsibility for owner, architect, engineer and contractor.

END OF SECTION 233533



1
A1.01
1/4" = 1'-0"
Existing Floor Plan w/ Demolition
PARTIAL LOWER LEVEL FLOOR PLAN
NORTH

1
SLAB TRENCHING NOTE:
MEP CONTRACTOR IS RESPONSIBLE FOR
SLAB TRENCHING. REFER TO PROPOSED
TRENCHING PLAN 3/P2.01 FOR ADDITIONAL
INFORMATION.



2
A1.01
1/4" = 1'-0"
Existing Reflective Ceiling Plan w/ Demolition
PARTIAL LOWER LEVEL FLOOR PLAN
NORTH

Demolition Key Notes

SYMBOL INDICATES
CONSTRUCTION KEY NOTE

- GC TO REMOVE EXISTING INTERIOR PARTITION, INCLUDING WALL BASE, GWB, STUDS, ELECTRICAL OUTLETS, SWITCHES, ETC. EC TO TERMINATE ALL ELECTRICAL COMPONENTS IN ACCORDANCE WITH NEC REQUIREMENTS. GC TO TEMPORARILY BRACE AND SHORE ALL REMAINING WALLS, FLOORS, AND CEILINGS AS REQUIRED PRIOR TO DEMOLITION.
- GC TO REMOVE EXISTING DOOR, HINGES, FRAME, HARDWARE, CLOSER, ETC. CONFER WITH OWNER FOR SALVAGE PRIOR TO DISPOSAL.
- GC TO REMOVE EXISTING FINISH FLOORING TO EXPOSE EXISTING SUB-FLOOR. GC TO PREPARE EXISTING SUB-FLOOR AS REQUIRED TO RECEIVE NEW FINISH FLOORING SEE DRAWING A2.01 FOR ADDITIONAL INFORMATION.
- GC TO REMOVE AND DISCARD OF EXISTING CASEWORK INCLUDING COUNTERS, DOORS, HINGES, BLOCKING, SINKS, ETC. CONFER WITH OWNER FOR SALVAGE PRIOR TO DEMOLITION.
- PC TO REMOVE EXISTING SINK IN ITS ENTIRETY. PC TO DISCONNECT ALL PLUMBING CONNECTIONS AND CAP AS REQUIRED PRIOR TO SINK REMOVAL. CONFER WITH OWNER FOR SALVAGE PRIOR TO DISPOSAL.
- GC TO REMOVE AND DISCARD EXISTING SUSPENDED CEILING, TILE AND SOFFIT INCLUDING CEILING GRID, WALL ANGLES, SUPPORT WIRES, CLIPS, TIES, ETC.
- EC TO DEMO EXISTING LIGHTING IN ITS ENTIRETY. EC TO TERMINATE ALL ELECTRICAL CONNECTIONS PER NEC REQUIREMENTS. SEE ELECTRICAL DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION. CONFER WITH OWNER FOR SALVAGE PRIOR TO DEMOLITION.
- MC TO REMOVE EXISTING SUPPLY DIFFUSERS, RETURN AIR GRILLES, AND/OR LOUVERS IN THEIR ENTIRETY. SEE MECHANICAL DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.
- EC TO RELOCATE EXISTING FIRE ALARM DEVICE. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EC TO RELOCATE EXISTING WIRELESS ACCESS POINT (WAP) AND ALL ASSOCIATED WIRING AND WIRE MOLD. TERMINATE ALL CONNECTIONS AS PER NEC REQUIREMENTS. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EC TO RELOCATE EXISTING CEILING MOUNTED PA SPEAKER IN ITS ENTIRETY. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EC TO RELOCATE EXISTING SMOKE DETECTOR. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EC TO DISCONNECT EXISTING CLOCK AND RELOCATE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EC TO DISCONNECT EXISTING PHONE AND RELOCATE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING PIPE CHASE (5'-11" A.F.F.) TO REMAIN.
- GC TO REMOVE EXISTING WALL-MOUNTED TEACHER PRESENTATION UNIT (SMARTBOARD, WHITE BOARD, BLACK BOARD, TACK BOARD, PIN BOARD, WORLD MAP, ETC.) IN ITS ENTIRETY. CONFER WITH OWNER FOR SALVAGE PRIOR TO DISPOSAL. DISCONNECT PROJECTOR, SMARTBOARD (WHERE REQUIRED).
- GC TO REMOVE EXISTING WINDOW SHADES AND HARDWARE IN THEIR ENTIRETY. CONFER WITH OWNER FOR SALVAGE PRIOR TO DISPOSAL.
- GC TO REMOVE EXISTING EXTERIOR WINDOW, JAMB, SILL, SASHES, INTERIOR TRIM, ETC. IN THEIR ENTIRETY. EXISTING LINTEL TO REMAIN.
- EXISTING WINDOW TO REMAIN. GC TO PROTECT DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
- EXISTING WALL TO REMAIN.
- EXISTING FIRE ALARM DEVICE TO REMAIN. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING SMOKE DETECTOR TO BE REMOVED AND REPLACED WITH WITH A HEAT DETECTOR. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING DATA/PHONE JACK TO BE REMOVED. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING CLOCK TO BE REMOVED. CONFER WITH OWNER FOR SALVAGE PRIOR TO DISPOSAL. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- TRENCHING SHOWN ON THIS DRAWING IS TO BETTER HELP THE CONTRACTOR UNDERSTAND THE INTENT OF THE UNDER-SLAB PIPE ROUTING. THE COMBINED MEP CONTRACTOR IS RESPONSIBLE FOR CUTTING, TRENCHING AND INFILL OF THE TRENCH, AND SHALL COORDINATE WITH ALL OTHER TRADES IN THE FIELD. THE MEP CONTRACTOR SHALL EXAMINE EXISTING CONDITIONS TO VERIFY EACH ROUTE IS FREE FROM EXISTING UNDER-SLAB OBSTRUCTIONS.

Date 12/20/22
Checked TT
Drawn BP

MICHAEL J. MCGOVERN, R.A.
REGISTERED ARCHITECT
License No. 022257-1

Revisions:

5/25/23
ISSUE FOR BID
8/17/23
ADDENDUM 1

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Surveying LLP

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252 Main Street, Goshen, New York 10924 | T. 845-615-0350 | F. 845-615-0351

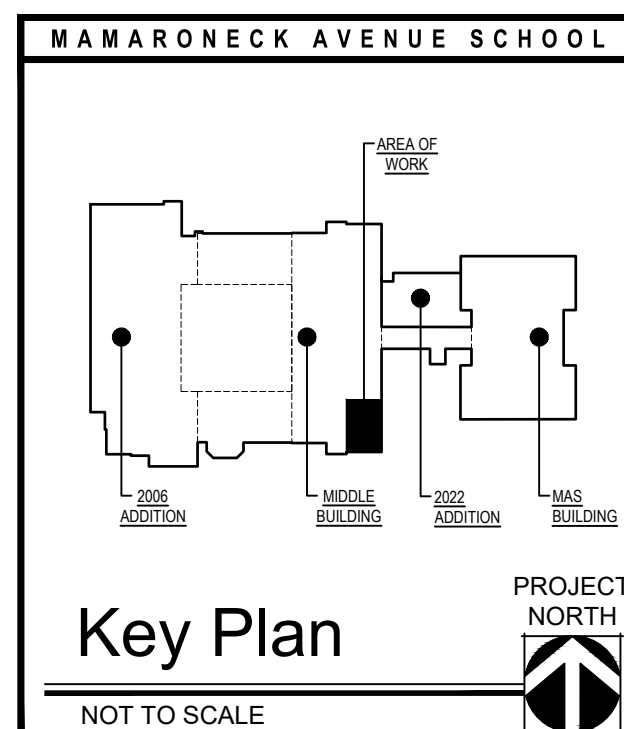
NYSED PROJECT # 66-07-01-03-0-004-033

EXISTING FLOOR PLAN & RCP W/ DEMO
NEW KITCHEN DESIGN
MAMARONECK AVENUE SCHOOL
850 MAMARONECK AVENUE
MAMARONECK, NEW YORK 10543

Job No. 4.1092.85

File No. 109285A101

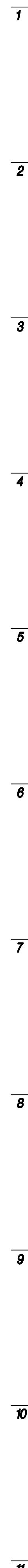
A1.01



Key Plan

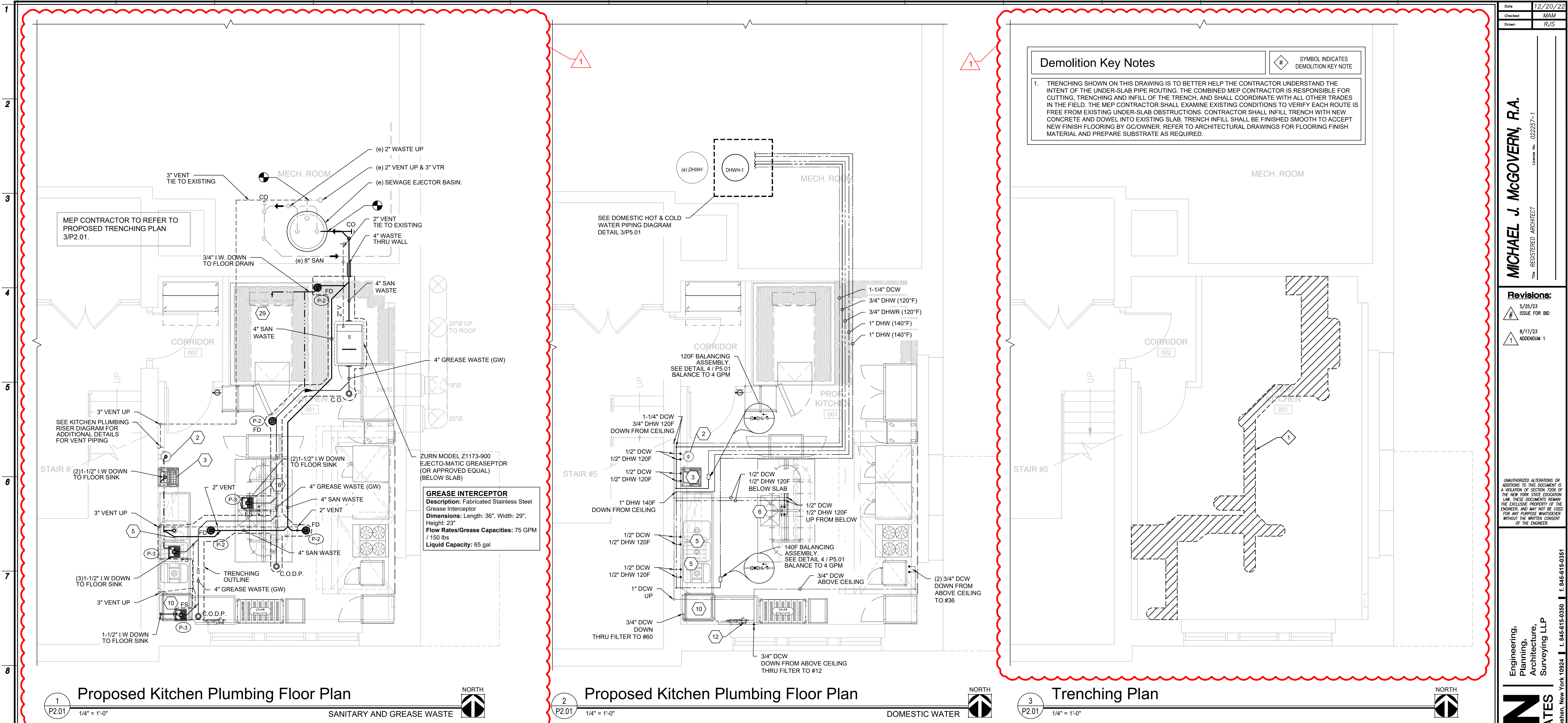
NOT TO SCALE

PROJECT
NORTH



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A B C D E F G H J K L M N O P



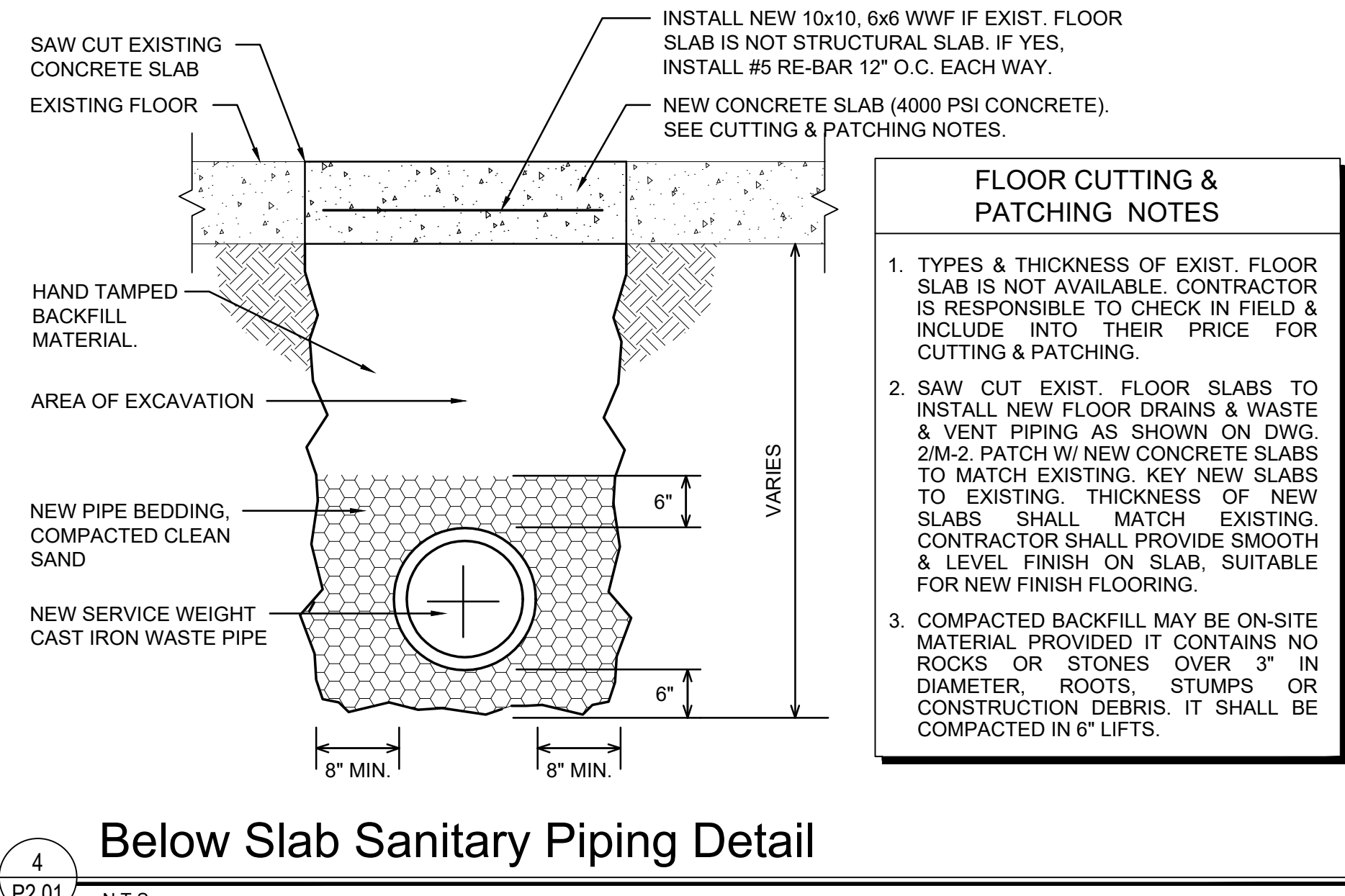
1
P2.01
1/4" = 1'-0"
SANITARY AND GREASE WASTE

2
P2.01
1/4" = 1'-0"
DOMESTIC WATER

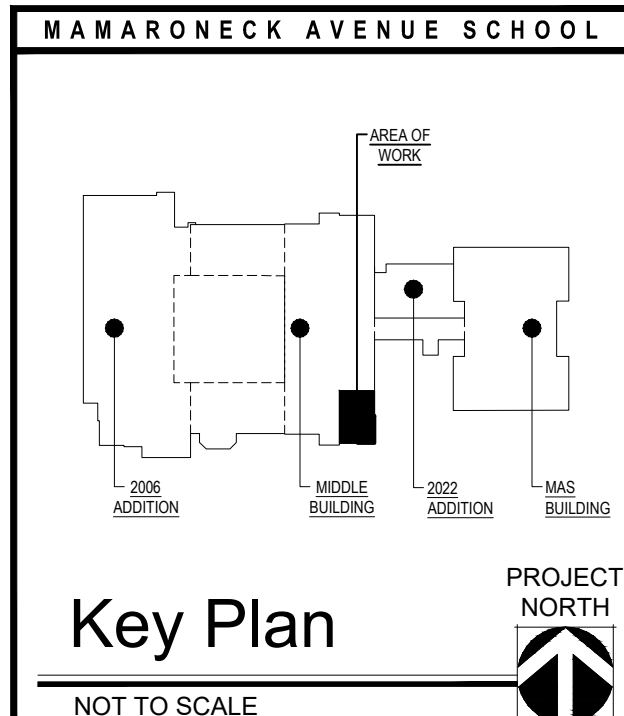
3
P2.01
1/4" = 1'-0"
TRENCHING PLAN

EQUIPMENT SCHEDULE							
ITEM NO.	EQUIPMENT CATEGORY	QTY	HOT WATER SIZE (IN)	COLD WATER SIZE (IN)	DIRECT DRAIN SIZE (IN)	INDIRECT DRAIN SIZE (IN)	GAS SIZE (IN)
2	EYE WASH STATION, WALL MNTD.	1	1/2	1/2	1-1/4		
3	HAND SINK W/ INTEGRAL UTILITY	1	1/2	1/2	1-1/2		
5	3-COMPARTMENT SINK, POTWASH	1	1/2	1/2	1-1/2		
10	WAREWASHER, DOOR TYPE, VENTLESS	1		1/2	1-1/2		
12	FILTER SYSTEM FOR ITEM #10	1		3/4			
16	PREP. TABLE, 2-COMPARTMENT	1	1/2	1/2	1-1/2		
25	WALK-IN FREEZER	1				3/4	
26	REFRIGERATION TO ITEM #25	1				3/4	
33	OVEN, CONVECTION, GAS	2					3/4
34	RANGE, HEAVY DUTY, GAS	1					1
36	STEAMER, ATMOSPHERIC	1		3/4	3/4	1/2	

SEE DRAWING FS.1 FOR ALL FOOD SERVICE DETAILS AND SCHEDULES. THE ABOVE SCHEDULE ONLY SHOWS EQUIPMENT THAT REQUIRES DOMESTIC WATER, GAS AND SANITARY DRAINS.



Plumbing Legend			
	Exist	Proposed	
Domestic Cold Water	---	---	Sanitary Waste
Domestic Hot Water 120°F	---	---	Sanitary Grease Waste
Domestic Hot Water Return	---	---	Sanitary Indirect Waste
Domestic Hot Water 140°F	---	---	Sanitary Vent
Dom Hot Water 140°F Return	---	---	
Point of Connection	⊗		
Floor Drain	FD		
Floor Sink	FS		
Air Gap Fitting			
Lever Control			



12/20/22
MAM
RJS

MICHAEL J. MCGOVERN, R.A.
REGISTERED ARCHITECT
022257-1

Revisions:
5/25/23
8/17/23
ADDENDUM 1

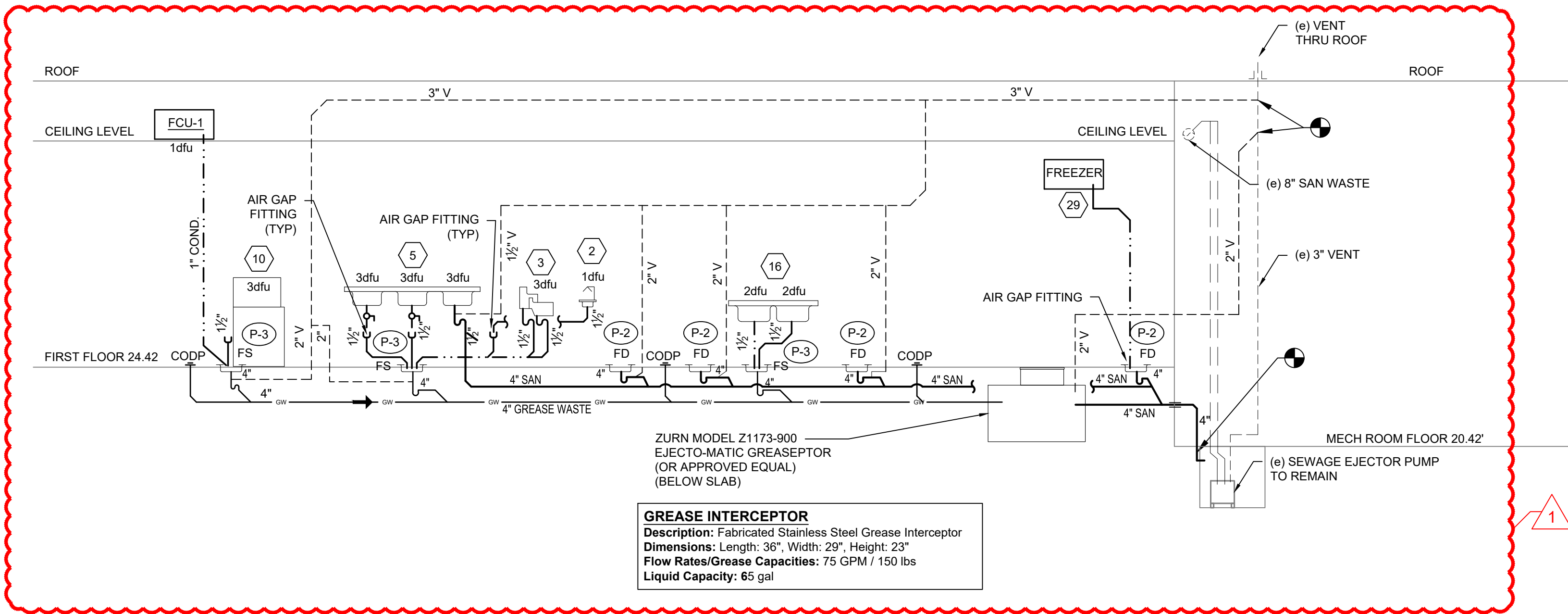
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PROPOSED KITCHEN & BOILER RM PLUMBING
NEW KITCHEN DESIGN
MAMARONECK AVENUE SCHOOL
850 MAMARONECK AVENUE
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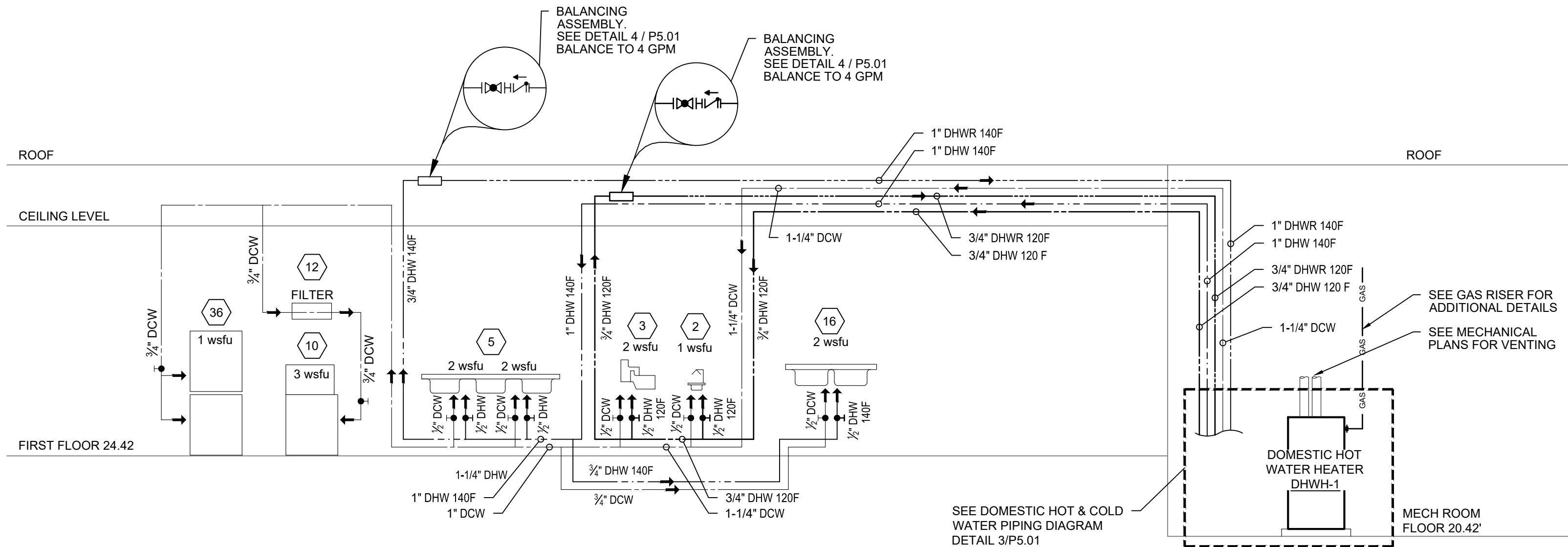
Job No. 4.1092.85
File No. 109285P201
P2.01



1
P5.01
1/4" = 1'-0"

Proposed Kitchen Plumbing Riser Diagram

SANITARY AND GREASE WASTE



2
P5.01
1/4" = 1'-0"

Proposed Kitchen Plumbing Riser Diagram

DOMESTIC WATER

EQUIPMENT SCHEDULE						
ITEM NO	EQUIPMENT CATEGORY	QTY	HOT WATER SIZE (IN)	COLD WATER SIZE (IN)	DIRECT DRAIN SIZE (IN)	INDIRECT DRAIN SIZE (IN)
2	EYE WASH STATION, WALL MNTD.	1	1/2	1/2	1-1/4	
3	HAND SINK W/ INTEGRAL UTILITY	1	1/2	1/2		1-1/2
5	3-COMPARTMENT SINK, POTWASH	1	1/2	1/2		1-1/2
10	WAREWASHER, DOOR TYPE, VENTLESS	1		1/2		1-1/2
12	FILTER SYSTEM FOR ITEM #10	1		3/4		
16	PREP. TABLE, 2-COMPARTMENT	1	1/2	1/2		1-1/2
25	WALK-IN FREEZER	1				
26	REFRIGERATION TO ITEM #25	1				3/4
33	OVEN, CONVECTION, GAS	2				3/4
34	RANGE, HEAVY DUTY, GAS	1				1
36	STEAMER, ATMOSPHERIC	1		3/4		1/2
				3/4		1/2

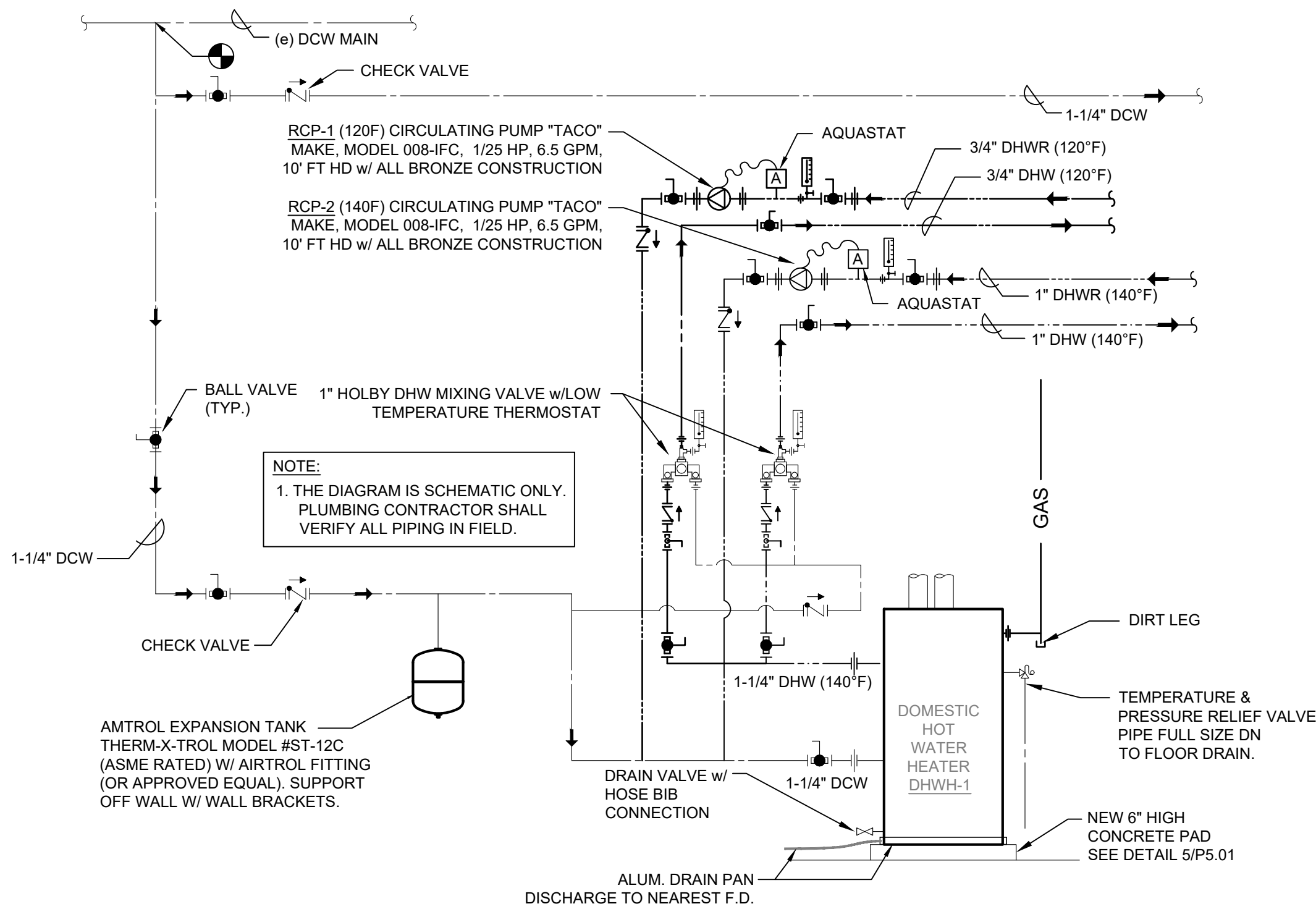
SEE DRAWING FS.1 FOR ALL FOOD SERVICE DETAILS AND SCHEDULES. THE ABOVE SCHEDULE ONLY SHOWS EQUIPMENT THAT REQUIRES DOMESTIC WATER, GAS AND SANITARY DRAINS.

GRAVITY GREASE INTERCEPTOR SIZING									
STANDARD PDG-G101, TABLE 8.3.2									
EQUIPMENT	QUANTITY	BOWL QUANTITY	DIMENSIONS OF SINK BOWL (L x W x H IN INCHES)			DRAIN DOWN DURATION	INDIVIDUAL FIXTURE FLOW (GPM)	SIMULTANEOUS DRAINING (YES/NO)	TOTAL FLOW (GPM)
SINK (3-COMP)	1	2	21	21	14	2 MINUTE	10 x 2	YES	20
SINK (2-COMP)	1	2	21	21	14	2 MINUTE	10 x 2	YES	20
DISHWASHER (DOOR TYPE)	1	1	-	-	-	2 MINUTE	5	YES	5
HAND/IAN (2-COMP)	1	2	-	-	-	2 MINUTE	1.5 x 2	YES	3

GREASE PRODUCTION SERVINGS PER DAY x GREASE PRODUCTION VALUE x DAYS BETWEEN PUMP-OUTS = GREASE OUTPUT NUMBER OF MEALS SERVED PER DAY: 150 GREASE PRODUCTION VALUE: 0.025 LBS PER SERVING (CAFE HEAT&SERVE: MEDIUM / NO FLATWARE) DAYS BETWEEN PUMP-OUTS: 30 DAYS 150 X 0.025 X 30 = 112.5 LBS OF FOG	TOTAL FLOW RATE (GPM)	48
---	-----------------------	----

ZURN MODEL Z1173-900
EJECTO-MATIC GREASECEPTOR (OR APPROVED EQUAL)
DESCRIPTION: FABRICATED STAINLESS STEEL GREASE INTERCEPTOR
DIMENSIONS: LENGTH: 36", WIDTH: 29", HEIGHT: 23"
FLOW RATES/GREASE CAPACITIES: 75 GPM / 150 LBS
LIQUID CAPACITY: 65 GAL

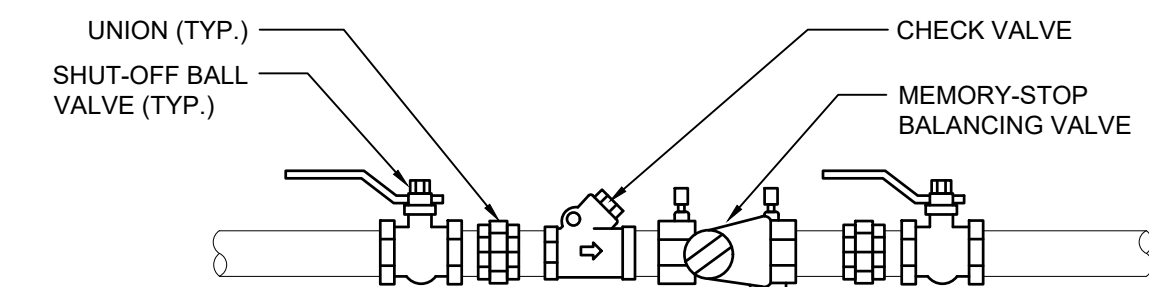
DOMESTIC HOT WATER HEATER SCHEDULE									
(AO SMITH AS STANDARD)									
TAG No.	SERVICE	INPUT RATING (MBH)	RECOVERY RATE @ 100°F RISE (GPH)	STORAGE CAPACITY (GAL.)	THERMAL EFFICIENCY %	FLUE SIZE	ELECTRIC DATA VOLT/PH/Hz	MODEL & MANUFACTURER	REMARKS
DHWH-1	KITCHEN	150	178	100	98	4"Ø	115/1/60	BTH-150A Mxi	AO SMITH
NOTES: 1. PROVIDE W/ STANDARD 150 PSI TEMPERATURE & PRESSURE RELIEF VALVE AND 4" PVC CONCENTRIC VENT. 2. PROVIDE A CONDENSATE DRAIN W/ CONDENSATE ACID NEUTRALIZING TUBE MODEL #JM-2 (OR APPROVED EQUAL) ON BOTTOM OF EXHAUST FLUE VENT 3. PROVIDE ALUMINUM DRAIN PAN, DISCHARGE W/PVC TO NEAREST FLOOR DRAIN (MAKE: HOLDRITE QP-30 OR APPROVED EQUAL.									



3
P5.01
1/4" = 1'-0"

Proposed Domestic Hot & Cold Water Piping Diagram

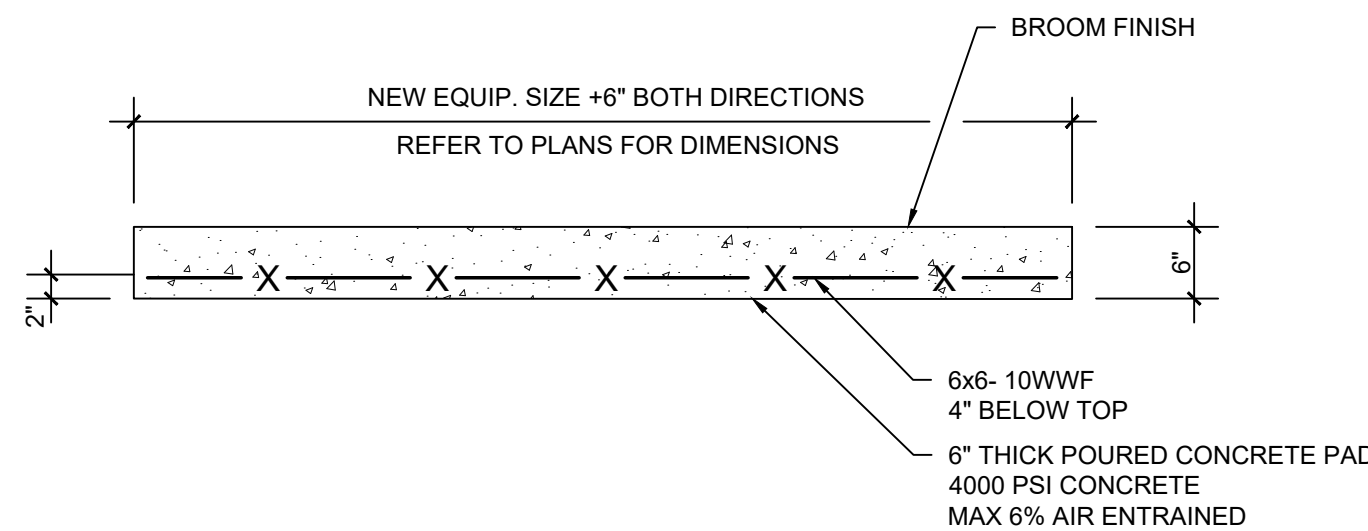
DOMESTIC WATER



- NOTES
- ALL THREADED PIPING BETWEEN UNIONS SHALL BE BRASS.
 - INSTALL DI-ELECTRIC UNIONS FOR PIPING CONNECTIONS OF DISSIMILAR METALS.

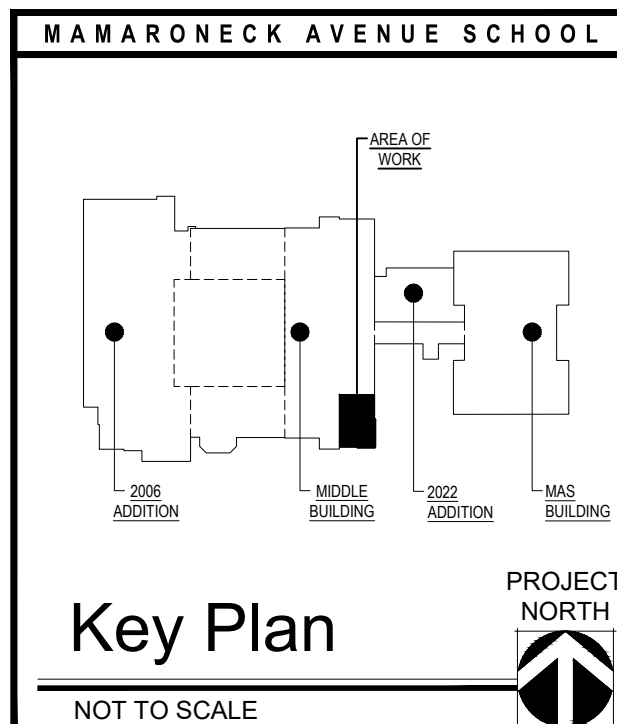
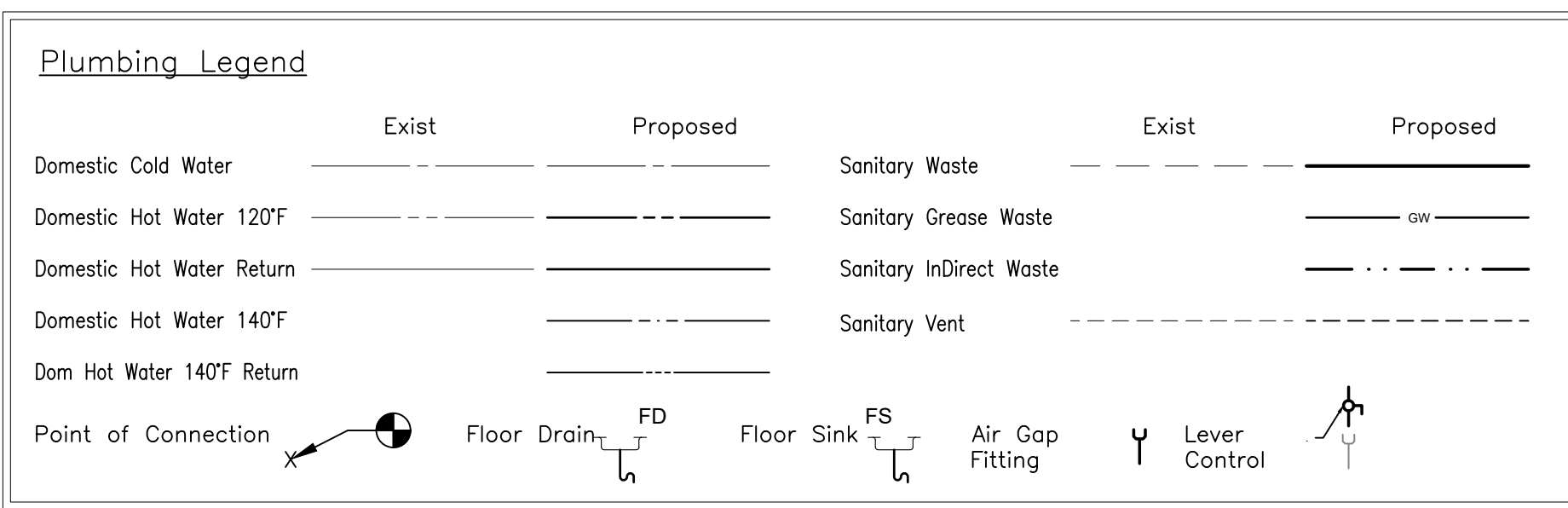
4
P5.01
N.T.S.

DHWR Balancing Assembly Detail



5
P5.01
N.T.S.

Concrete Pad Detail



Key Plan

NOT TO SCALE



Revisions:	
#	DATE / ISSUE FOR BID
1	8/17/23 ADDENDUM 1

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KITCHEN PLUMBING RISERS & NOTES
NEW KITCHEN DESIGN
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850 MAMARONECK AVENUE
MAMARONECK, NEW YORK 10543

Job No. 4.1092.85
File No. 109285P201

P5.01

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