ADDENDUM NO. 2

February 25, 2013

RE: Kitchen Improvements at Newark High School

75 East Delaware Avenue, Newark, Delaware 19711

for

Christina School District

700 North Lombard Street, Wilmington, Delaware 19801

EIA Project No. PP7279

FROM: EI Associates, Architects and Engineers

2001 North Front Street, Building 3

Harrisburg, PA 17102-2118

Telephone: (717) 233-4556 x1015 E-mail: ahollinger@eiassoc.com

TO: Prospective Bidders

This Addendum shall be incorporated into the Contract Documents and shall take precedence over any instructions that conflict therein. All items contained herein shall be considered in preparation of your proposal for the subject Project. Acknowledge receipt of this Addendum in the space provided on your Form of Proposal. Failure to do so may subject Bidder to disqualification.

This Addendum consists of 4 pages, plus the following accompanying documents:

Project Manual Documents:

Section 114000 "Food Service Equipment," revised 2-25-2013 (7 pages) Section 114000 – Bally Detail Sheets (8 pages)

Supplemental Drawings:

SKFS-4 Foodservice Equip. Utility Schedule Revisions (ref. Dwg. FS-1.8); dated 2-20-2013 ESK-1 Partial First Floor Plan & Panel Schedule Revisions (ref. Dwg. E1); dated 2-22-2013

Full Size Drawings:

FS-1.6 Foodservice Equipment Refrigeration Schedule – revised 2-20-2013

CHANGES TO BIDDING REQUIREMENTS:

- 2.1 Bid Schedule (p. BS-1): The date and time bids are due for this project remains unchanged (March 1, 2013 at 2:00 p.m.). Under "Bids Due," revise the following:
 - A. The city and zip code are incorrect; change the line, "Newark, DE 19711," to "Bear, DE 19701." The city and zip code are correctly shown for the Eden Support Center in the Instructions to Bidders and Bid Form.

CHANGES TO CONTRACTING REQUIREMENTS:

- 2.2 Supplementary Conditions; Article 8; paragraph E (p. SC-4): Add new subparagraphs as follow:
 - (1) Provide all necessary measures to protect existing facilities-to-remain against damage from exposure to weather, construction activities or unauthorized access. Exact locations, dates of installation and removal, materials, configurations and other aspects of construction of such partitions shall be subject to the review and approval of Owner.
 - (2) Where portions of roofing system or exterior walls or doors are cut open or removed, thereby exposing the building interior, utilities, finishes, or other in-place work (new or existing) to the outside, provide temporary weather-tight enclosure that is also secure from intrusion by unauthorized persons.
 - (3) On building interior, provide indoor air quality control by separating construction areas from existing kitchen areas-to-remain and other Owner-occupied areas at risk of being soiled or damaged due to construction work. Seal and isolate construction areas from adjoining finished or Owner-occupied areas in order to strictly limit airborne transmission of dust and fumes into such adjoining areas and to maintain them as clean and healthy indoor environments.
 - a. Kitchen areas in Newark H.S. will generally not be used much during the summer.
 - b. At a minimum, construct interior temporary partitions from floor to deck above with 3-5/8-inch metal stud or 2 x 4 fire-retardant-treated wood stud framing and minimum 6-mil polyethylene sheet attached on one side. Seal barrier at all openings, gaps and joints to prevent dirt and dust transmission. Provide with temporary "doorways" of acceptable materials where necessary for construction access, Owner access, or emergency egress. Provide weatherstripping or other suitable dust barrier on doorways. Provide walk-off mats at each doorway through temporary partitions.
 - c. Examine perimeter surfaces of work area for openings, penetrations and joints. Provide suitable temporary or permanent (as applicable) closure of such openings.
 - d. Seal off permanent HVAC equipment inlets/outlets, return air ducts, air transfer ducts, or inactive ducts that remain in the work area, after verifying that air flow is otherwise provided to active systems serving Owner-occupied areas.
 - 5. Provide <u>negative air pressure</u> in work areas by installing temporary ventilation system with adequate makeup air and fans to exhaust contaminated air to the exterior away from outdoor air intakes.
 - (4) Immediately remedy breaches in the isolation facilities and clean-up surrounding occupied or finished areas that become contaminated.
- 2.3 Supplementary Conditions; Article 8 (p. SC-5): Add new paragraphs G & H as follow:
 - G. Construction materials shall be secured, protected, and suitably stored.

H. School District Summer Work Schedule: After the students leave school in June, the District will be operating on a summer schedule. The buildings will be open 4 days a week (Monday to Thursday), from 6:30 a.m. to 5:00 p.m. Contractor shall perform its work on site on the same days and hours that the District has the building open; however, the District will work with the Contractor to open the building on Fridays if necessary to complete the project on time. Refer also to Section 011000, paragraph 1.11-B.

CHANGES TO SPECIFICATIONS:

- 2.4 Section 033053; Paragraph 3.10-A (p. 033053-6): Revise to read, "Testing Agency: Owner will engage and pay a qualified testing agency to perform tests and inspections. Contractor to coordinate and schedule testing agency at the appropriate times. Testing agency is to report inspection results promptly and in writing to Owner, Contractor, and Architect. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents."
- 2.5 Section 042000; Subparagraph 3.12-A.1 (p. 042000-9): Revise to read, "Except as indicated otherwise, Owner will engage and pay a qualified independent testing and inspecting agency to perform indicated field tests and inspections and to prepare test reports. Contractor to coordinate and schedule testing agency at the appropriate times."
- 2.6 Section 096517: Two authorized installers for Altro flooring are:

Connolly Floors, tel. 302- 996-9470, attn: Mike Connolly

Tri-State, tel. 302-654-8193, attn: Dave Michaloski

2.7 Section 114000: Void the original Section in the Project Manual and replace with revised Section 114000, copy of which accompanies this addendum. Add 8 pages of Bally Detail Sheets, copies of which accompany this addendum, to the end of this Section as additional information.

CHANGES TO DRAWINGS:

- 2.8 Drawing FS-1.5; Walk-In Insulated Floor Depression Details 7.06, 7.06.1, 7.06.2, 7.06.3 and 7.06.4: Floor depression indicated should be 6" not 8" (verify with mfr), and field-applied floor finish inside walk-ins is to be sheet vinyl (Section 096517), not quarry tile.
- 2.9 Drawing FS-1.6: Delete Drawing as originally included in bid set and replace with revised Drawing FS-1.6, copy of which accompanies this addendum. On the "Section Thru Entrance Door" on this new drawing, delete note referring to "Epoxy Flooring by Others."
- 2.10 Drawing FS-1.7: Delete this drawing in its entirety.
- 2.11 Drawing FS-1.8; Foodservice Equipment Utility Load Schedule: Revise electrical characteristics as shown on supplemental Drawing SKFS-4, copy of which accompanies this addendum.
- 2.12 Drawings A1, S2.1 and FS-drawings: Make minor adjustments to dimensions shown for construction to accommodate revised dimensions of the new walk-in refrigerator and freezer units as indicated elsewhere in this addendum by changes to specific FS-drawings and Section 114000 specifications.

- 2.13 Drawing S2.1; Structural Notes Concrete Slabs on Grade: In Note 1, add the following: "Prior to concrete placement, excavate, fill, and re-work subgrade soil as necessary for new drainage course and recessed slab. Compact subgrade to not less than 98 percent of maximum dry unit weight according to ASTM D 698. Coordinate and schedule Geotechnical Engineer (engaged by Owner) to test subgrade to verify acceptable compaction density. Place and compact new 4" drainage fill course of AASHTO #57 washed crushed stone, or crushed or uncrushed gravel."
- 2.14 Drawing S2.1; Foundation Plan 1/S2.1: In note regarding 4" slab on grade, add the word "BARRIER" after the word "VAPOR."
- 2.15 Electrical Drawings: Clarification: Electrical General Notes and Conditions:

 Running exposed surface mounted conduit to new kitchen equipment shall be acceptable only in cases where it's not feasible to run inside block due to the block being filled with concrete or structural steel makes it impossible. Surface mounted conduit shall be installed in a workman like manner at right angles to the existing floor and ceilings and meets all National Electrical Code requirements. Where new circuit wiring is required to be run from existing panels that are recessed in masonry wall, the wiring shall be run in existing conduits that provide access to the panel through the masonry wall. This may require the installation of new wiring in a conduit with existing wiring. Where new wiring is to be installed in a conduit with existing wiring, the National Electrical Code requirements for number of wires in a conduit shall be followed.
- 2.16 Drawing E1: Revise Partial Floor Plan and Existing Power Panel Schedules as shown by clouded marks on supplemental Drawing ESK-1, copy of which accompanies this addendum.

SUPPLEMENTAL INFORMATION:

- 2.17 Bidders are reminded that patching and repair requirements (specified in Sections 017300 and 024119), following selective demolition and other cutting operations, include matching of new, patched finishes to existing adjoining undisturbed finishes. Not all finishes required have a specification section. It is bidders' responsibility to field verify such finishes.
- 2.18 It shall be assumed that new concrete slab substrate may be too 'green' to receive direct application of new/patched finishes; accordingly, include floor finish manufacturer's recommended seal coating for 'green' concrete to reduce moisture vapor emission rate to acceptable level for installation of its flooring.

END OF ADDENDUM

SECTION 114000 - FOOD SERVICE EQUIPMENT

PART-1 GENERAL

1.01 Summary:

A. This Section includes the furnishing and installation, by a Food Service Equipment Contractor (FSEC), of all items of food service equipment, with accessories and appurtenant parts required to provide a complete and operating food service system as shown and called for in the Drawings and Specifications, or reasonably inferable there from. All parts or appurtenances required to make a system or item complete and satisfactorily operative shall be provided, even though such part or appurtenance may not be specifically mentioned or shown. Work of this Section shall include all motor starters for other than fractional horsepower motors, connection terminals, controls and control wiring, overload protection, safety devices, and other equipment required by N.E.C., faucets, waste traps, escutcheons, and other appurtenances necessary for proper operation of the equipment.

B. Items of equipment hereafter listed and described by a certain manufacturer's name and model designation shall, unless otherwise indicated, be furnished complete with all components, accessories, finishes, and other operational and construction features as are listed or indicated in the named manufacturer's specifications or catalog data, current at time of bidding, as "standard" or otherwise furnished with that particular model mentioned herein. Each item shall, in addition, be furnished with such optional accessories or special features as are further herein specified.

C. Related Work By Others:

- 1. The Electrical Subcontractor shall provide electrical power supply for equipment to the locations shown on equipment rough-in drawings and make final connections to equipment terminal blocks or control box. Disconnect switches, or other protective devices and other electrical items not an integral part of the equipment, shall be furnished and installed by the Food Service Equipment Installer. All control wiring, whether controls are equipment mounted or remote, shall be the responsibility of the Contractor furnishing the food service equipment.
- 2. The Plumbing Subcontractor shall provide waste, and gas supply services to the locations shown on equipment rough-in drawings, and will make final connection of these services to faucet legs and trap tail-pieces provided by the Contractor furnishing the food service equipment.

1.02 Submittals:

A. Coordination Drawings: After Award of Contract, submit to the Architect equipment rough-in coordination drawings. These drawings shall indicate, by dimension, the size and location of each service connection required (i.e., water, waste, gas, electric, etc.) to each piece of equipment. The Contractor shall be responsible for the size and location of these services installed in accordance with these drawings. These drawings shall be submitted to the Architect in at least eight copies; two copies, bearing Architect's acceptance, shall be furnished to each Contractor furnishing services to the equipment.

B. Shop Drawings: Submit to Architect for review before any item of equipment is fabricated or purchased. Shop drawings or, in the case of purchased items, manufacturers' data sheets, shall describe, in detail, the size and type, construction details, gauge and finish of metals, service characteristics, capacities, fittings or accessories furnished, and other pertinent information for each item of equipment.

1.03 Quality Assurance:

- A. All materials shall be new and of first quality. All work shall be performed in accordance with the best practices and highest standards of the industry.
- B. All items of equipment shall be approved by the National Sanitation Foundation and meet the requirements of the pertinent State of Delaware agencies. All work shall be performed in accordance with all applicable state and local codes. All electrical items shall be UL-approved and meet the requirements of the National Electrical Code.
- C. The mention of a manufacturer's name or model number relative to certain pieces of equipment is intended to indicate the type, kind, or quality required for that specific item and shall not be construed to limit the work to that particular manufacturer mentioned. However, the Contractor shall not presume to furnish equipment other than that specified without the Architect's review and acceptance of such proposed substitution in accordance with Instructions to Bidders, Article "Product Substitutions."
- D. R-12 refrigerant shall not be used in any equipment items.

1.04 Warranty:

A. The Food Service Equipment Contractor shall guarantee all items of equipment for a period of at least two years and shall repair or replace, to the Owner's satisfaction, any item showing failure or fault during this period, without cost to the Owner. Manufacturer's warranties, shall be assigned and delivered to the Owner.

PART-2 PRODUCTS

2.01 Schedule of Equipment:

- A. For location and identification purposes, item numbers preceding the item title, as specified herein, refer to the items used on the Kitchen Layout.
- B. Items specified herein in the singular reference shall be furnished in the quantities as shown on the Kitchen Layout or as hereinafter specified.
- C. Manufacturers: Equipment catalog model designation numbers of the manufacturers named herein are used to establish the model type, size, design, and quality features required for the various items of equipment included in this Section.

SPECIFICATIONS

FSEC IS RESPONSIBLE FOR ALL FINAL FIELD CONDITIONS (VERIFY ANY AND ALL OBSTRUCTIONS) AND OR DIMENSIONS. FSEC IS RESPONSIBLE FOR RUNNING INTER-CONNECTIONS (EVAP.COIL DRAINS LINES, HEAT TRACE TAPE ETC.)

FSEC RESPONSIBLE FOR RIGGING AND PLACEMENT (INCLUDING METALLIC ANCHORS IF NECESSARY) OF COMPRESSOR/CONDENSER. PRESSURE AND SUCTION LINES RAN AND SOLDERED BY FSEC. START UP BY FSEC.

FSEC TO PROVIDE 16 GAUGE #4 MILL FINISH STAINLESS STEEL VALANCE(S) TO COVER ALL OPEN AREAS OF WALK-IN-COMPLEX. THIS INCLUDES FINISHING TRIMS AS WELL.

REFER TO BALLY DETAIL SHEETS (8 pages) AT END OF THIS SECTION FOR ADDITIONAL INFORMATION.

ITEM # 4.013 BLAST CHILLER (QTY.1) TO REMAIN

Item 4.001 - WALK-IN-COOLER (+35) (1 REQ'D)

NEWARK HS - 12-2727-0-1-JMH

INDOOR STRUCTURE:

NSF Approved

BALLY Prefabricated Exterior Dimensions:

25'- 0" Length x 12' x 6 1/2 " Width x 8'-10" Height

2 Compartments with Floor

Ceiling: Single Span

Panel Thickness: 6" Exterior Vertical Used (7'-10") with 4" Partition, 6" Floor, 6" Ceiling

Details and Specifications:

Comments:

Cooler/Freezer with Floor

Base Finish:

Vertical and Ceiling Panels: Embossed Galvalume (26 GA)

Special Finishes:

Interior Verticals – Stainless Steel 22 Ga. (Smooth)

Interior Floor – Stainless Steel (Type 430) (16ga)

Interior Ceiling – Stainless Steel 22 Ga. (Smooth)

Exposed Ext. Verticals – Stainless Steel 22GAa. (Smooth)

Doors/Openings:

- (1) 3' x 6'-6" L/F Metal Capped Wood Framed Opening
- (1) 36" x 78" Hinged Door in a 46" x 94" Panel

Doors Accessories:

- (2) 4 1/2" Dial Type Thermometer w/ 5' Cap Tube
- (1) DataHub System
- (1) Foot Treadle
- (2) Int. Stainless Steel Ramp (30-36" Door)
- (1) Observation Window (14 x 24) Norfab w/ Aluminum Frame
- (1) Super Door 36" Wide and Under, 36" High

Accessories and Extras:

- (2) Bally Standard Pressure Relief Port (< 400sq/ft)
- (1) J-Box & Conduit (Recept & Wiring by Others)
- (6) LED Kason 1810 48" w/ (2) Lamps
- (1) Jamoclear Lamison 36" Door
- (19) L/F Stainless Steel (22Ga.) Capping Ceiling
- (1) Light Switch
- (1) Lot of 21" S/S Wire Cant. 5 Tier Shelves
- (1) Modularm Phone Dialer

Refrigeration:

- (1) BLP 214-MA-S1BPE **14000 BTU 115/1/60** Low Profile Evap. **(2)** Fans Air Defrost
- (1) Htd. & Insul Receiver (Below 10 Degrees) 0.5 3 HP
- (1) Htd. & Insul Receiver (Below 10 Degrees) +3.5 HP
- (1) Sound Insulated Compt. 0.5-3HP
- (1) Sound Insulated Compt. +3.5HP
- (1) BQZA 055 L6 HT3AF (208-230/3/60) Copeland Scroll # ZF15K4E
- (1) BLP 419LE S2BPE 19000 BTU 208/230/1/60 Low Profile Evap. (4) Fans Elect Defrost
- (1) BQZA 010 H8 HT3AD (208-230/3/60) Med Temp

Estimated Shipping:

Weight: 8,946.99

Destination: Wilmington, DE

Exclusions (Items Not Supplied by Bally):

Labor on Warranties
Supervision
Tubing, Wiring for Rfg. Equipment
Compressor Rack
Caulking and Sealants
Closure Panel and Trim
Sleeves, Penetrations, Escutcheon Plates
Floor Insulation and Vapor Barrier

<u>Bally Refrigerated Boxes, Inc.</u> is compliant with Federal Energy Independence and Security Act of 2007 (Public Law 110-140) Title III; Section 312, regarding Walk-In Coolers and Walk-In Freezers.

Cancelled Orders:

Cancelled unshipped standard walk-ins will be charged a 30% restocking fee plus the cost of special panels. Cancelled refrigeration systems will be charged a

30% restocking fee and the cost of any freight accrued. Buy-out items will be charged a 25% restocking fee plus any freight accrued.

Agency Ratings: Bally units comply or surpass applicable Flame Spread-25, UL, UL 723, & NSF standards in a manner conforming to ASTM E-84, and Factory Mutual standards.

Quotation Limitations:

This quotation was based upon the specifications given to Bally which may possibly be incomplete. Bally is not responsible for items missing from the quotation due to incomplete or excluded items in the specifications received from the customer. The customer is responsible for reviewing the quotation for

omissions or deviations from the specifications given to Bally. All portions of the quotation are subject to revision upon receipt of detailed specifications or if changes are made following the delivery of the original quotation.

Panel Construction: Bally Panels are manufactured with environmentally friendly HFC 245-FA polyurethane foam. This polyurethane foam offers the highest thermal insulation value and the most energy efficiency per cubic inch in comparison to similar foams. It has a zero Ozone Depletion Potential (ODP) and a low Global Warming Potential (GWP). It is not considered a Volatile Organic Compound (VOC) in the US. Standard 4" Bally panels meet the 2009 Federal Energy Standards.

Refrigerants: Unless otherwise specified, refrigeration systems are quoted with environmentally friendly HFC R404A refrigerant. It has a zero Ozone Depletion Potential (ODP). The EPA lists it as an acceptable substitute for ozone-depleting substances.

Automatic Door Closers: Bally includes automatic door closers and spring loaded hinges on all doors 42" wide and smaller as a standard feature with no additional charge that meet the 2009 Federal Energy Standards.

Motors: Bally units are quoted with EC and PSC motors in compliance with federal energy standards, for increased energy savings.

Lighting: Bally units are quoted with lighting in compliance with federal Energy Standards for increased energy savings.

Optional Features: Bally offers additional optional energy-saving features such as Walk-In Alarm & Light Management systems that comply or surpass the 2009 Federal energy regulations

Bally Refrigeration Warranty Coverage Includes the following: 10 year Panel Warranty, 1 year Parts Warranty, 5 Year Compressor Warranty, 5 Year Refrigeration System Warranty, 1 Year Labor Warranty on 3 HP units or lower

Item 4.002 - EVAPORATOR COIL COOLER (+35) (1 REQ'D)

Bally Refrigerated Boxes Model CUSTOM

See item #4.001 for full specifications.

Item 4.003 - REMOTE CONDENSER UNIT (1 REQ'D)

Bally Refrigerated Boxes Model CUSTOM

See item 4.001 for full specifications. See AFS Standard Detail 7.06, 7.06.1, 7.06.2, 7.06.3, 7.06.4, 17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.8, and 17.9. Curb by G.C.

Item 4.004 - WALK-IN-FREEZER (-10) (1 REQ'D)

See item 4.001 for full specifications.

Item 4.005 - EVAPORATOR COIL FREEZER (-10) (1 REQ'D)

See item 4.001 for full specifications.

Item 4.006 - REMOTE CONDENSER UNIT (1 REQ'D)

Bally Refrigerated Boxes Model CUSTOM

See item 4.001 for full specifications. See AFS Standard Detail 7.06, 7.06.1, 7.06.2, 7.06.3, 7.06.4, 17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.8, and 17.9. Curb by G.C.

Item 4.007 - OPEN NUMBER

Item 4.008 - OPEN NUMBER

Item 4.009 - OPEN NUMBER

Item 4.010 - STORAGE SHELVING UNITS

Bally Refrigerated Boxes Model CUSTOM

Cantilevered shelving by Bally- Per shop drawing

Item 4.011 - STORAGE SHELVING UNITS

Bally Refrigerated Boxes Model CUSTOM

Cantilevered shelving by Bally-Per shop drawing

Item 4.012 - STORAGE SHELVING UNITS

Bally Refrigerated Boxes Model CUSTOM

Cantilevered shelving by Bally- Per shop drawing

PART-3 EXECUTION

3.01 Fabrication:

- A Field joints, where required, shall be steel reinforced and gasketed so that tops can be tightly jointed to a hair-line connection.
- Welds shall be of full penetration and the entire length of the joint, without imperfections, burns, or buckles. Welds shall be ground and polished to match color and finish of adjacent metal.
 Welding shall be by electric fusion metal-arc method using rods of same composition and material as parts welded.
- C. All exposed surfaces, and other surfaces where possible, shall be free of bolt, screw, or rivet heads. Wherever bolts are used, they shall be of concealed type, and wherever they occur on the inside of the fixtures and are visible or subject to contact by hands or wiping cloths, they shall have suitable lock washers and chrome-plated brass or bronze acorn nuts.
- D. All soldering for water lines shall be done with lead-free solder.

3.02 Materials:

- A. Unless otherwise indicated, fabricated items shall be constructed of the following materials:
 - 1. Stainless steel shall be Type 302, 18-8 composition of U.S. Standard gauge specified.
 - 2. Exposed faces shall have #4 mill finish; concealed faces shall have minimum 100 grit finish.
 - 3. Hardware shall be heavy-duty chromed white metal or stainless steel.

3.03 Installation:

A. Equipment shall be installed level and square in its final position as shown on drawings. Trim and traps shall be installed ready for final connections by Plumbing Contractor. All controls, control wiring, and terminal blocks shall be in place and prepared for power connection by the Electrical Contractor.

3.04 Testing and Cleaning:

A. After all equipment is finally installed and connected, the Contractor shall test all lines and services, and shall determine that all such services are satisfactory and operational. All items of equipment shall then be put into operation and adjusted to the satisfaction of the Owner and Architect. All equipment shall finally be thoroughly cleaned and otherwise be prepared for use by the Owner.

3.05 Instructions:

- A. The Contractor shall provide selected members of the Owner's dietary and educational staff with a period of instruction wherein the proper and safe use and operation of the complete food service system is demonstrated and explained. The instruction period shall be of such duration that those personnel in attendance will be reasonably well trained in the operation of all equipment. The instruction may be by, or instructor may be, a factory representative or a member of the Contractor's staff; however, he shall, to the satisfaction of the Owner and the Architect, be knowledgeable and proficient in the operation of the equipment demonstrated.
- B. The Contractor shall provide the Owner with manufacturers' instruction and maintenance manuals for all items with moving parts or items for which replacement or repair parts can be anticipated.

3.06 Sanitary Sealing:

A. All joints between equipment items abutting or adjoining item to item; all joints between walls and equipment items abutting thereto; and, all other wall, ceiling, and floor joints between dissimilar materials or other such joints otherwise open to entry of spillage, soil, or bacterial shall be caulked tight, full, and continuously with General Electric Company's silicone clear sealant, in conformance with the regulations set forth by the State Departments of Health and Environmental Resources.

END OF SECTION

NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP

BQZA010H8-HS2A

159 ROY BLVD, PO BOX 2020 BRANTFORD, ON CANADA N3T 5Y6				QUIET LINE - SCROLL CONDENSING UNIT					
PURC	HASER :		SUBMIT	TED BY : .					
PR	OJECT : New	ark HS Main Kitchen		DATE :	06 Feb 2	013			-
		0.39583.00136P-A00		ITEM #:	1				
QU	OTE # : Q31 J	IKJMHF-A		ID # :					
PURCHASER'S	S PO # :	=	TA	AGGING :	Cooler				
Copper tubing sectlamps Discharge line the Pre-formed piping Receiver with fusishut off valve Space saving, con Sturdy electrical compressor contact circuit	ermostat J ble plug and li npact design control box wit	hion • Suction and disch • Weatherproof ele with compressor co control circuit • Welded hermetic • Heavy guage galv construction	ctrical control bontactor and fus Scroll compres	oox sed sor binet	Commuta • Unit shi Charge • Powder • Gold Co • High eff and alum	ficient Electro ated Motor (EC pped with Nit Coat Painted pat Fins ficiency enhar inium fin coil or Speed Con	CM) rogen H Cabinet nced cop design	t	
PRE-ENGINEEI PACKAGE A - STD B C D E F G H J K 115V Control (Compressor Sc	Circuit	MODEL OPTIONS Discharge Line DISCONNECT Non-Fused Extended 4-Ye Warranty FIN AND COIL Electro Fin Co Copper Fins Heresite Coat 1 Heated and Ir LIQUID LINE GLASS 1 Sealed Pump Down T	e Check Valve SWITCH ear Compresse MATERIAL ating ing isulated Recei	or ver	With SUCT Seal TIME Para *230 *11! Wall I	ION ACCUMI nout Heat Exc ION FILTER led Type CLOCK agon 8145 Sty OV Paragon 8 5V Paragon 8 Mount Kit Guard	hanger yle 145 Sty	vle	
VOLTAGE	S	YSTEM REFRIGERANT	RATING		CTION TEM				ACITY
208-230/1/60		R404A	1Hp		25.0 °F	95.0			1 BTUH
FAN			RESSOR	1		CIRCUIT			
QTY POWER			TY RLA	LRA	AMPS		MCA		MOP‡
1 165W	1.7	ZB15KCETFD	10	40.3	11.7	<u>'</u>	14.2	2	20
Dim A Dim B Dim C Dim D LIQUID SUCTION SOUND WEIGHT	3/8 in 5/8 in 58dBA 300 lb	The state of the s	options. S * Indicate † MCA N ‡ MOP N MCA & MC	ee certified s Option Is Minimum C Maximum (DP Shown g unit ONL	d drawing s Shipped ircuit Amp Overcurrer Here are Y. Single	pacity nt Protection reflective of t point connect	ails.	APPR	OVALS
CAPACITY	11 lb				Г				
APPROVED BY:						DATE:			

Approval of this drawing signifies that the equipment is acceptable under the provision of the job specifications. Any change made hereon by any person whomsoever subject to acceptance by NATIONAL REFRIGERATION at its home office.



NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

159 ROY BLVD, PO BOX 2020 BRANTFORD, ON CANADA N3T 5Y6

NATIONAL REFRIGERATION will furnish equipment in accordance with this drawing and specifications, and subject to its published warranty. Approval of this drawing signifies that the equipment is acceptable under the provision of the job specifications. Any change made hereon by any person whomsoever subject to acceptance by NATIONAL REFRIGERATION at its home office.

Order Item No: 1

BQZA010H8-HS2A

QUIET LINE - SCROLL CONDENSING UNIT

DATE: **06 Feb 2013** PURCHASER:

PROJECT : Newark HS Main Kitchen

SUBMITTED BY: Joan M. Hoch

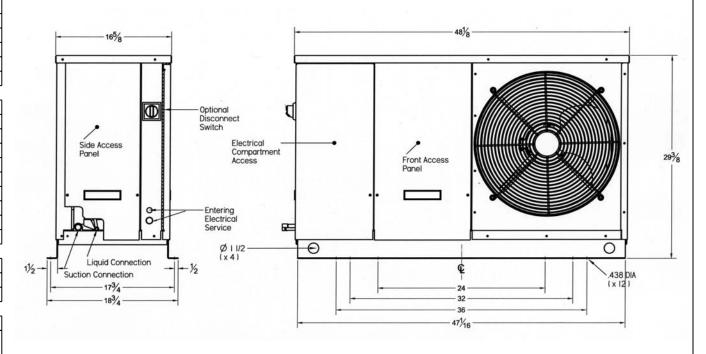
Dimensions shown are for standard unit less options.

DIMENSIONS						
DIMENSION A						
DIMENSION B						
DIMENSION C						
DIMENSION D						
DIMENSION E						
DIMENSION F						
DIMENSION G						
DIMENSION H						

CONNEC	TIONS
LIQUID	3/8 in
SUCTION	5/8 in
DRAIN	
WATER	
DISCHARGE	
PAN LOOP	
HOT GAS SIDE PORT	
HOT GAS INLET	
HOT GAS OUTLET	

OTHER						
SHIPPING WEIGHT	300 lb					
CAPACITY	11 lb					

APPROVALS						
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NOTES:

NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

BLP214MA-S1B_ECM

LDCII	BR/	ROY BLVD, PO BOX ANTFORD, ON NADA N3T 5Y6	2020	LOW PROFILE EVAPORATOR					
PURCHASER :			SUBMITTED BY						
			HS Main Kitchen		: 06 Feb 2	013			
			39583.00136P-A00	ITEM #					
BUBBLIA	QUOTE # : Q31JKJMHF-A PURCHASER'S PO # :			ID#					
PURCHA	SER'S PO	J # :	MODEL FEA		: Cooler				
 3/8" Tubing coil construction (reduces refrigerant operating charge) Factory installed solenoid valve wire harness Heavy gauge textured aluminum cabinet construction resists Spacious piping end allows for easy assem Hinged drain pan wire drain connection (3/4") Front access to space header compartments Schrader connection 				ompartment ly n central universal drain) ous electrical and	polyethyl • Ultra ef Commuta • ECM wi • High ef	ve and durablene fan guard ficient Electro ated Motor (EC th SmartSpee ficiency enhan inium fin coil	s nically CM) d Techno ced cop	ology	
			MODEL OPTIONS (* :	= Shipped Loose	:)				
Sporlan TXV, LLSV,T-stat SmartVapII with Sporlan TXV & SolvIV KE2 Demand Defrost w/Sporlan EEV *KE2 Demand Defrost w/Sporlan EEV *ME2 Demand Defrost w/Sporlan EEV *Danfoss TXV, LLSV, T-stat SmartVapII with Danfoss TXV & SolvIV Alco TXV, LLSV,T-stat KE2 Demand Defrost w/KE2 EEV *KE2 Demand Defrost w/KE2 EEV *ME2 Demand Defrost w/KE2									
VOLTAGE	Ε	SYST	EM REFRIGERANT	AIR FLOW	EVAP. TEMP	BOX TI			CITY
115/1/6			R404A	1800 CFM	25.0 °F	35.0	-	13,996	BTUH
	FANS		HEATERS			CIRCUIT			
	WER	FLA/FAN	TYPE QTY	AMPS	AMPS		MCA1	l N	/IOP‡
2 0.0	05HP	1			2	120	2.3	_	15
					2	120	2.3		15
Dim A	46	1/4 in	AND SUPER OF MACRETS	Dimensions show	n are for sta	ndard unit les	s T	APPRO	OVALS
Dim B		1/4 in	(5.7/m) Sometime or service or	options. See certi					
Dim C			2/2 MO / 2/4 PLANE	* Indicates Option			L		7
Dim D 1/2 in 1/2 in									
DISTRIBUTOR SUCTION		1/2 in 7/8 in ‡ MOP Maximum Overcurrent Protection							
SOUND	''	-	COPPETIONS COPPETIONS COPPETIONS COPPETIONS	MSF.					
WEIGHT	7	8 lb	0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						
CHARGE		3 lb							
APPROVED B	APPROVED BY : DATE :								
			that the equipment is acceptal whomsoever subject to accept						ge
						PAGE	3	OF	8



NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

NATIONAL REFRIGERATION will furnish equipment in accordance with this drawing and specifications, and

subject to its published warranty. Approval of this drawing signifies that the equipment is acceptable under the provision of the job specifications. Any change made hereon by any person whomsoever subject to acceptance

by NATIONAL REFRIGERATION at its home office.

159 ROY BLVD, PO BOX 2020 BRANTFORD, ON CANADA N3T 5Y6 Order I tem No: 2

BLP214MA-S1B_ECM

LOW PROFILE EVAPORATOR

DATE : **06 Feb 2013**

PURCHASER:

PROJECT: Newark HS Main Kitchen

SUBMITTED BY: Joan M. Hoch

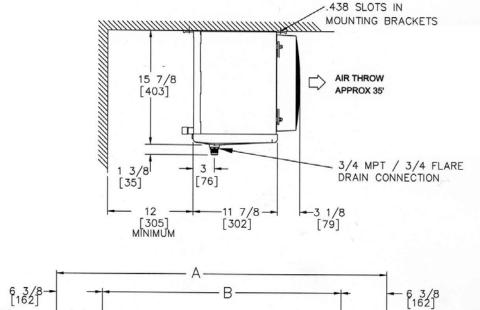
Dimensions shown are for standard unit less options.

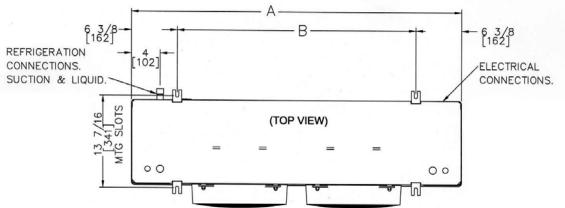
DIMENSIONS						
DIMENSION A	46 1/4 in					
DIMENSION B	33 1/4 in					
DIMENSION C						
DIMENSION D						
DIMENSION E						
DIMENSION F						
DIMENSION G	0 in					
DIMENSION H						

CONNEC	TIONS
DISTRIBUTOR	1/2 in
SUCTION	7/8 in
DRAIN	3/4 in
WATER	
DISCHARGE	
PAN LOOP	
HOT GAS SIDE PORT	
HOT GAS INLET	
HOT GAS OUTLET	

OTHER	
SHIPPING WEIGHT	78 lb
CHARGE	3 lb

APPROVALS						
	CE	c (UL) us				
	NSF					





NOTES:

NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

BQZA055L6-HT3A

LD QII	BRA	ROY BLVD, PO BO	X 2020	QUIET LINE - SCROLL CONDENSING UNIT						
F	PURCHAS	IADA N3T 5Y6		SUBMITTED BY : Joan M. Hoch						
PROJECT : Newark HS Main Kitchen				DATE : 06 I						
			.39583.00136P-A00		EM # : 3					
	QUOTI	E # : Q31JK	JMHF-A		ID # :					
PURCHA	SER'S PO	O # :		TAG	GING : Fre	ezer				
clamps • Discharge lin • Pre-formed p • Receiver with shut off valve • Space saving • Sturdy electr	e thermo piping n fusible g, compa ical cont	control circuit Welded hermetic Scroll compressor Heavy guage galvanized steel cabinet control box with control and fused control control circuit Charge Powder Coat Painted Cabinet Gold Coat Fins Liquid injection (low temp model High efficiency enhanced copper and aluminium fin coil design				odels)	ре			
PACKAGE A - STD B C D 1 E F G H J K 115V Conf	MODEL OPTIONS (* = Shipped Loose) PRE-ENGINEERED OPTION PACKAGE A - STD B C C C C C C C C C C C C C C C C C C									
1101 71 05				2471110	Louis	 1		T	0.15.	01777
VOLTAGE 208-230/3		SYS	TEM REFRIGERANT R404A	RATING 5.5Hp		N TEMP . 4 °F	95.0 °		CAPA 19,349	
200-230/3	FANS		COMPRESS	•	1 -19.	·- '	CIRCUIT	-	, 5 - ,	
QTY PC	WER	FLA/FAN	TYPE QTY	RLA	LRA	AMPS	WATTS	MCA†	- I N	IOP‡
	30W	1.7	ZF15K4ETF5	21.4	123	24.8		30.2	-	50
Dim A			All	Dimensions :	shown are fo	or standa		s [/	APPRO	
Dim B				options. See		_		IIS.		
Dim C			Same Same Same Same Same Same Same Same	* Indicates († MCA Min				-	_	
Dim D LIQUID	1 /	'2 in		# MOP Max				,	լ ՄՍՍսs	
SUCTION		/8 in		MCA & MOP	Shown Her	e are refle	ective of th	ne 📙	-	
SOUND		-	PA 23	condensing u				ons		
WEIGHT	50	00 lb	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WILL show d	lifterent on (aataplate.		一		
CAPACITY		2 lb	7719							
APPROVED B	Y :	1		•		D	ATE:			
			es that the equipment is acceptal on whomsoever subject to accept							ge



NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

159 ROY BLVD, PO BOX 2020 BRANTFORD, ON CANADA N3T 5Y6

NATIONAL REFRIGERATION will furnish equipment in accordance with this drawing and specifications, and subject to its published warranty. Approval of this drawing signifies that the equipment is acceptable under the provision of the job specifications. Any change made hereon by any person whomsoever subject to acceptance by NATIONAL REFRIGERATION at its home office.

Order Item No: 3

BQZA055L6-HT3A

QUIET LINE - SCROLL CONDENSING UNIT

DATE: **06 Feb 2013**PURCHASER:

PROJECT: Newark HS Main Kitchen

SUBMITTED BY: Joan M. Hoch

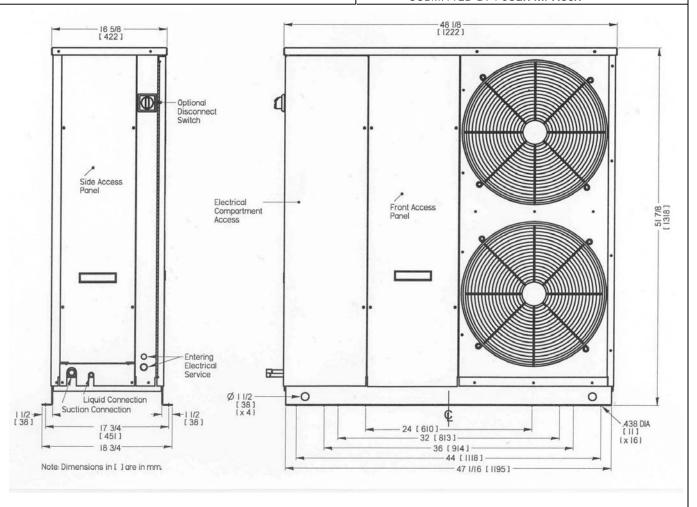
Dimensions shown are for standard unit less options.

DIMENSIONS						
DIMENSION A						
DIMENSION B						
DIMENSION C						
DIMENSION D						
DIMENSION E						
DIMENSION F						
DIMENSION G						
DIMENSION H						

CONNEC	TIONS
LIQUID	1/2 in
SUCTION	1 1/8 in
DRAIN	
WATER	
DISCHARGE	
PAN LOOP	
HOT GAS SIDE PORT	
HOT GAS INLET	
HOT GAS OUTLET	

OTHER	
SHIPPING WEIGHT	500 lb
CAPACITY	22 lb

	APPRO	OVALS	
		c (UL) us	
JOTES:			



NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

BLP419LE-S2B_ECM

159 ROY BLVD, PO BOX 2020 BRANTFORD, ON					LOW PROFILE EVAPORATOR						
Γ	PURCHAS	NADA N3T 5Y6	-	 SURMITTI	SUBMITTED BY: Joan M. Hoch						
I			HS Main Kitchen		DATE : 06						
	R # : 02860.3	IT	TEM # : 5		<u>-</u>						
	QUOT	E # : Q31JKJ	MHF-A		ID # :						
PURCHA	SER'S P	O # :	-	TAG	GING : Fre	eezer					
refrigerant ope	erating collections of the collection collection collection collection reserved to the collection collections collection collection collection collections collection	noid valve wire	• Spacious piping e allows for easy ass	embly ' with central univ 8/4" drain) pacious electrical nts	compartment oly h central universal drain) ous electrical and e Attractive and durable high de polyethylene fan guards • Ultra efficient Electronically Commutated Motor (ECM) • ECM with SmartSpeed Techno • High efficiency enhanced copp						
301410110370011	031011		MODEL OPTIONS			a arannine		acsigii			
Solvlv KE2 Dem KE2 Dem *KE2 Den *KE2 Den This series of the series of t	TXV, LLS poll with land Definand Definiya port Confilsh White Black	V,T-stat Sporlan TXV & rost w/Sporlan rost w/KE2 EE rost w/KE2 EE TATS C-24 BC-1 table DT, Fixed unector	CPC SENSORS Coil Temp Sei Return Air Tei Suction Press DEMAND DEFF CONTROLLER TXV KE2 Therm - *KE2 Therm - *KE2 Therm - Dual Circuit EEV SENSOR/T CPC/Emerson Other - Specif ELECTRONIC O SmartVapII *Other EEV C Model in Note EVAPORATOR Tamper Proof EXPANSION V Sporlan TXV Danfoss TXV	nsor mp Sensor ure Transducer ROST ELECTRON Demand Defrost Demand Defrost RANSDUCER BRA fy in Notes CONTROLLER ontroller- Specify S PRISON PACKA Screws	AND MFR 1	Electro Copper Heresit Insulate KE2 THE *KE2 R *KE2 8 *CAT5e w/conta *Liquid LIQUID Danfos Sporlar Alco Room TI *Room	e Coating ed Drain P ERM couter #20 Port Switce Shielded sectors ctor Kit - 5 / Suction LINE SOL	g an 184 th #2016 Cable - 5 0A #202 Heat Ex ENOID	56 50ft 217 xcha r	_	
VOLTAGE	- T	CVCT	EM REFRIGERANT	AIR FLOW	I EVAD	P. TEMP	BOX TE	EMD T	CADA	ACITY	
208-230/1		3131	R404A	3810 CFM		9.4 °F	-10.0			5 BTUH	
	FANS			TERS	<u> </u>		CIRCUIT	•	-	-	
QTY PC	WER	FLA/FAN	TYPE Q	TY AMPS		AMPS	WATTS	MCA†		MOP‡	
4 0.0	D7HP	0.6				2.4	240	2.6		15	
			DEFROST HTRS	15.5			3560	19.3		20	
Dia A		4 (4 !							A DDD :	0) (4) 6	
Dim A Dim B Dim C Dim D DISTRIBUTOR SUCTION SOUND WEIGHT CHARGE	32 32 1/ 1 1	1/4 in 5/8 in 5/8 in 5/8 in /2 in 1/8 in - 27 lb	The state of the s	options. See * Indicates († MCA Mir	Dimensions shown are for standard unit less options. See certified drawing for more details. * Indicates Option Is Shipped Loose † MCA Minimum Circuit Ampacity ‡ MOP Maximum Overcurrent Protection					OVALS CE MSF	
APPROVED B	Υ:		that the equipment is ass	ontable under the	provision		DATE :	ne An:	char	1	
			that the equipment is accombined whomsoever subject to accombined to the subject to accombine th							ge	



NATIONAL REFRIGERATION AND AIR CONDITIONING CANADA CORP.

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subject to its published warranty. Approval of this drawing signifies that the equipment is acceptable under the provision of the job specifications. Any change made hereon by any person whomsoever subject to acceptance

by NATIONAL REFRIGERATION at its home office.

159 ROY BLVD, PO BOX 2020 BRANTFORD, ON CANADA N3T 5Y6 Order Item No: 5

BLP419LE-S2B_ECM

LOW PROFILE EVAPORATOR

DATE: **06 Feb 2013**PURCHASER:

PROJECT: Newark HS Main Kitchen

SUBMITTED BY: Joan M. Hoch

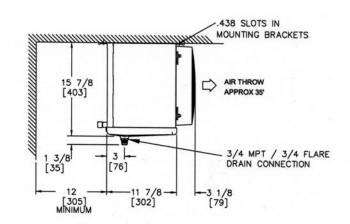
Dimensions shown are for standard unit less options.

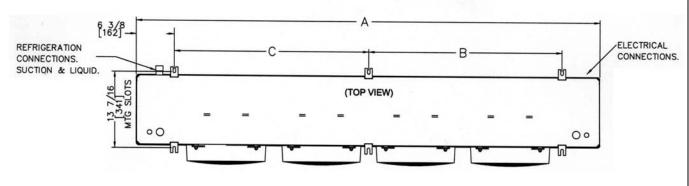
DIMENSIONS						
DIMENSION A	78 1/4 in					
DIMENSION B	32 5/8 in					
DIMENSION C	32 5/8 in					
DIMENSION D						
DIMENSION E						
DIMENSION F						
DIMENSION G	0 in					
DIMENSION H						
DIMENSION D DIMENSION E DIMENSION F DIMENSION G						

CONNEC	TIONS
DISTRIBUTOR	1/2 in
SUCTION	1 1/8 in
DRAIN	3/4 in
WATER	
DISCHARGE	
PAN LOOP	
HOT GAS SIDE PORT	
HOT GAS INLET	
HOT GAS OUTLET	

OTHER	
SHIPPING WEIGHT	127 lb
CHARGE	4 lb

APPROVALS								
	CE	c (UL) us						
	NSF		-					





NOTES:

UI	-ILI	TY SCHEDULE								
ITEM NO.	QTY.	DESCRIPTION	ELECTRICAL REMARKS / MECHANICAL REMARKS	CONNECTION SR DR EC SW	VOLT/ PHASE	AFF	AMPS	кw	Y	COLD WATER AFF
4. 001	1	WALK-IN COOLER(+35F)		EC	120/1	104″	15. 0			
4. 002	1	EVAPORATOR COIL COOLER(+35F)	>	EC	120/1	94″	2. 0			
4. 003	1	REMOTE REFRIG.COMPRESSOR/ CONDENSER(+35F)		EC	208-230/1	12"	11. 7		1	
4. 004	1	WALK-IN FREEZER(-10F)		EC	120/1	104″	15. 0			
4. 005	1	EVAPORATOR COIL FREEZER(-10F)		(L1)-EC (L2)-EC		94″ 94″	2. 4 15. 5		1	
4. 006	1	REMOTE REFRIG, COMPRESSOR/ CONDENSER(-10F)		EC	208-230/3	12"	24. 8		<i> </i>	
4. 007		OPEN NUMBER				^				
4. 008		OPEN NUMBER								
4. 009		OPEN NUMBER								
4. 010	5	STORAGE SHELVING UNIT(S)								
4. 011	5	STORAGE SHELVING UNIT(S)								
4. 012	4	STORAGE SHELVING UNIT(S)								
4. 013	1	BLASTER CHILLER		EC	208/3	72"	19. 5			

REF. DWG. FS-1.8

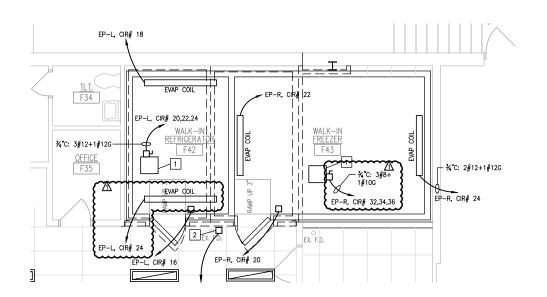
SKES-4
PDE PROJECT NO. EIA DRAWING NO.
EIA PROJECT NO. PP7279
ISSUE DATE 02.20.2013

AREA KITC	HEN						MAI	IN LU	GS <u>400A</u>
DESCRIPTION	BRKR SIZE	CIR NO	_	ا م	3¢ (Ç ¢	CIR NO	BRKR SIZE	DESCRIPTION
•		1	\cap	₩	⊢		2	•	•
•	·	3	\cap	⊢	⊢	\cap	4		•
	· ·	5	\cap	⊢	⊣	\cap	6		•
	· ·	7	\cap	₩	⊢	\cap	8		•
CONDENSATE PUMPS	20A	9	\cap	⊢	⊢	\cap	10		•
	· ·	11	\cap	⊢	⊢	\cap	12		•
	· ·	13	\cap	₩	⊢	\cap	14		•
	· ·	15	\cap	⊢	⊢	\cap	16	20A	REFRIG. POWER AND LIGHTS
•	· ·	17	\cap	⊢	⊢	\cap	18	15A	REFRIG. EVAP COIL
•	· ·	19	\cap	₩	⊢	lack	20		
	· ·	21	\cap	⊢	⊢	$ \uparrow \rangle$	22	20A	REFRIG. CONDENSER
	· ·	23	\cap	⊢	⊢		24		
	· ·	25	\cap	₩	⊢	\cap	26	15A	REFRIGERATOR EVAP. COIL
	1 .	27	\cap	⊢	⊢	\cap	28	٠.	~~~~
	1 .	29	\cap	⊢	⊢	\cap	30		
	1 .	31	\cap	╀	⊢	$ \cap$	32		
	1 .	33	\cap	⊢	⊢	$ \uparrow \rangle$	34	30A	BLAST CHILLER
		35	\cap	⊩	⊢	\wedge	36		
•	١.	37	\cap	₩	⊢	\cap	38		
•	١.	39	\cap	⊢	⊢	\cap	40		
•	† •	41	\cap	⊢	⊢	\cap	42		•

EXISTING	POWER	PANEL

AREA <u>KITC</u>	HEN		MA	AIN LU	IGS <u>400A</u>
DESCRIPTION	BRKR SIZE	CIR	Bø Cø Cil	R BRKR SIZE	DESCRIPTION
•		1	$++\bigcirc$ [2		•
•		3	┿┩╱┞╸		•
·	1 .	5	┰┩╱╟		
	1 .	7	$+\!\!\!+\!\!\!\!-\!\!\!\!\!-\!$		
·	1 .	9	+ $ -$		
·	1 .	11	$+$ $+$ \cap 12		
·	1 .	13	+ $ -$		
•	1 -	15	+ $ -$		
	٠.	17	┿		
•	1 -	19		20A	FREEZER POWER AND LIGHTS
•	1 -	21		20A	FREEZER EVAP COIL
•	1 -	23	- $ -$	15A	FREEZER EVAP COIL
•	1 -	25	- $ -$		
•	1 -	27			
•	1 -	29	+	·	·
•	1 -	31	┼ ┤∕ \ [32	T	
•	1 -	33	┼ ┤∕¶₃₄	50A	FREEZER CONDENSER
•	1 -	35	 	5	
•	1.	37		·	
•	1 -	39	+ $ -$		
•		41	-		

EXISTING POWER PANEL



REF. DWG. E1

PROJECT: NEWARK HIGH SCHOOL
750 E. DELAWARE AVENUE NEWARK, DE 19711
CHRISTINA SCHOOL DISTRICT

EI EI ASSOCIATES

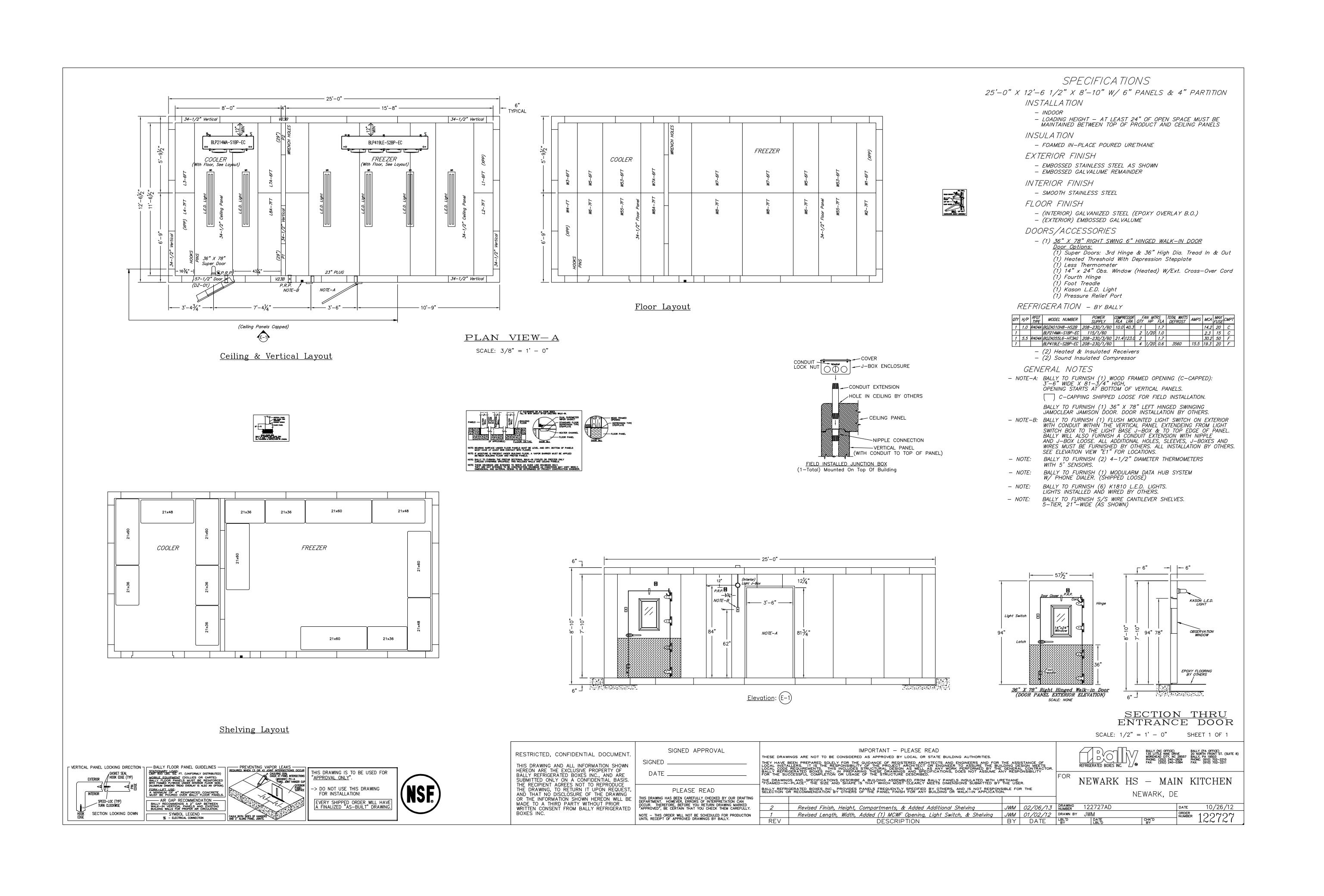
ISSUE DATE 02/22/2013

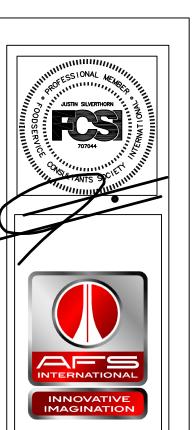
EIA PROJECT NO. PP7279

PDE PROJECT NO.

EIA DRAWING NO.

ESK-1







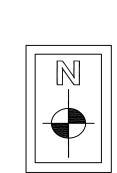


Project Executive
Justin Joseph Silverthorn

Drawn/CAD By
RMS/JJS

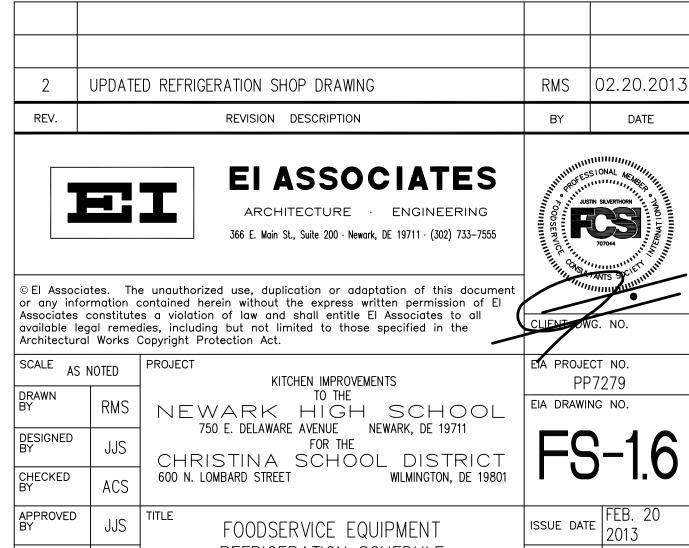
Date Drawn

Scale
AS NOTED



Project Number 12-0173

REVISION



REFRIGERATION SCHEDULE

PROJECT MANAGER