



August 27, 2010

Memorandum

To: All Bidders

From: Gordon E. Johnson, Gordon Johnson Architecture

Re: AIT - SSA

Attached are the appropriate bid documents to be included with the plans for the above referenced project. Included are:

Information for Bidders
Supplementary General Conditions
Bid Form

The AIA form A201 General Conditions shall be included as a part of these contract documents (not attached). The successful bidder will be awarded a contract for construction on an AIA Form A101 Standard Contract for Construction for a stipulated sum.

If you have any questions please call me or Steve Largent at 223-2186 or 922-5947 respectively.

INFORMATION FOR BIDDERS

B.01 – OWNER:

AIT, Inc. (herein called the “Owner”) invites bids on the project known as the AIT – SSA Building Renovation, Fayetteville, North Carolina. Single prime bids will be received until 10:00 a.m. by the Owner at the Owner’s office, 421 Maiden Lane, Fayetteville, North Carolina 28301 on August 31, 2010. The envelopes containing the Bids must be sealed, addressed to Mr. Mike Roberts, and clearly designated as “Bid”, along with the name of the project. It is the sole responsibility of the Bidder to insure that the Bid is received by the Owner by the Bid deadline.

B.02 – OWNER’S RIGHT:

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions herein stated and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within fifteen (15) days after the actual date of the opening thereof.

B.03 – PREPARATION OF BID:

Each bid must be on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten in both words and figures. Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, his address, his license number, and the name of the project for which the Bid is submitted. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed as specified in the Bid Form.

B.04 – SUBCONTRACTORS:

The Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the Owner and the Architect. The Contractors must submit a complete list of Subcontractors to be used prior to formal commitments by the Contractor. Prime Subcontractors must be identified on the bid form.

B.05 – TELEGRAPHIC MODIFICATION:

Any Bidder may modify his bid by telegraphic or electronic communication at any time prior to the scheduled closing time or receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time, and provided further, the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the Bidder was mailed prior to closing time. The telegraphic communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two (2) days from the closing time, no consideration will be given to the telegraphic modification.

B.06 – METHOD OF BIDDING:

The Owner invites bids of the following Contracts:
Single Prime Contract.

B.07 – QUALIFICATIONS OF BIDDER:

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform work, and the Bidder shall furnish to the Owner all such information and data for the purposes as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein. Conditional bids will not be accepted.

B.08 – CONDITIONS OF WORK:

Before submitting a bid, each bidder shall carefully examine the Drawings, Specifications, and all Contract Documents and visit the site. Each bidder shall fully inform himself prior to the bidding as to all existing conditions and limitations under which the work will be performed. Failure to do so will not relieve a successful Bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his Contract. The submission of a bid shall be construed as conclusive evidence that the bidder has complied with the conditions herein. Insofar as possible, the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.

B.09 – ADDENDA AND INTERPRETATIONS:

No interpretation of the meaning of the Plans and Specifications, or other pre-bid documents will be made to any Bidder orally.

Every request for such interpretation should be in writing addressed to the Architect:

Mr. Gordon E. Johnson
Gordon Johnson Architecture
654 Hay Street Suite 4
Fayetteville, NC 28301

and to be given consideration must be received at least twenty-four (24) hours prior to the time fixed for the opening of bids.

Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Specifications which, if issued, will be mailed or faxed not later than eighteen (18) hours prior to the time fixed for the opening of bids. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

B.10 – LAWS AND REGULATIONS:

The Bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulation of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

B.11 – NOTICE OF SPECIAL CONDITIONS:

Attention is particularly called to these parts of the Contract Documents and Specifications which deal with the following:

1. Insurance Requirements
2. Time of Completion
3. Allowances

B.12 – METHODS OF AWARD:

If the Base Bid is within the amount of funds available to the Owner to finance the construction Contract, and all other bid responses are acceptable, then Contract award will be made to that responsible Bidder, deemed satisfactory to the Owner. **The “Low Bid” shall be defined as the lowest total of Base Bid AND Alternates (if any) the Owner is able and/or willing to accept due to available funds.** The Owner’s decision of Alternates to be accepted is final. The low bidder is not guaranteed award of the contract.

B.13 – OBLIGATIONS OF BIDDER:

At the time of the opening of bids, each Bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Plans and Contract Documents (including all Addenda). The failure or omission of any Bidder to examine any form, instrument or document shall in no way relieve any Bidder from any obligation in respect to his Bid.

B.14 – PAYMENTS:

Payment will be made only when the construction is one hundred (100%) percent complete and the tenant is able to accept and occupy the space.

B.15 – SUMMARY OF WORK:

It is the intent of the Contract to provide a finished Project to the extent indicated, complete and ready for use except for the facilities specifically noted to be excluded from the Contractor’s work.

Mention on the Drawings of materials, articles, operations or methods of construction or installation require that the Contractor furnish and install each item mentioned or indicated. Items shall be of quality or subject to qualifications noted. Perform work according to conditions stated or as each operation is prescribed, and provide thereof all necessary labor, equipment and incidentals.

B.16 – PRE-BID CONFERENCE:

Pre-Bid Conferences will be held informally at the project site at which time Contractors may direct questions to the Owner and Architect. Attendance is mandatory.

B.17 – CONTRACT:

The Contract for Construction will be an AIA Form A101 agreement between contractor and owner for a stipulated sum. The AIA A201 General Conditions shall also be included as a part of the contract documents.

B.18 – INSURANCE:

Requirements for bidding this project are as follows:

1. Furnish NC License Number (G.S. Chapter 87 establishes licensing requirements for general, plumbing, heating, electrical, and refrigeration contractors for construction projects costing \$30,000 or more).
2. Insurance – The Contractor shall provide, as required by law, insurance for his employees. The Owner assumes no liability for injuries or accidents related to the Contractual Agreement. The Contractor shall furnish a certificate to the Owner as a Proof of Coverage. The Contractor shall maintain and pay the Insurance Coverage, which shall no be less than the following:

A. Workman’s Compensation	statutory
Employees Liability	\$1,000,000

- B. General Liability (per person/per occurrence):
 - 1. Bodily Personal Injury \$1,000,000/\$2,000,000
 - 2. Property Damage \$1,000,000/\$2,000,000
- C. Automobile Liability (per person/per occurrence)
 - 1. Bodily Injury \$1,000,000/\$2,000,000
 - 2. Property Damage \$1,000,000/\$2,000,000
- D. Property insurance shall cover the full value of the Owner's and Contractors property.
- 3. No bid bond is required.

BID FORM

AIT - SSA

Owner: AIT, Inc.

Fayetteville, NC

8-27-10

The undersigned, as Bidder, hereby declares that the only person or persons interested in this Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The Bidder further declares that he has examined the site of the Work and the Contract Documents relative thereto, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees if this Proposal is accepted to contract with AIT, Inc., Fayetteville, North Carolina, in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the AIT – SSA Building Renovation in accordance with the plans, specifications, and contract documents to the full and entire satisfaction of AIT, Inc., Fayetteville, North Carolina with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and the Contract Documents, for the sum of:

COMPANY PROPOSING BID _____

BASE BID _____ Dollars (\$ _____)

The Bidder further proposes and agrees hereby to commence work under this contract and fully complete all work thereunder as specified in the Supplementary General Conditions. Applicable liquidated damages are stated in the Supplementary General Conditions.

Respectfully submitted this ____ day of _____, 2010.

The Single Prime Contractor Proposes to use the following Subcontractors for:

Plumbing Construction _____ (\$ _____)

Mechanical Construction _____ (\$ _____)

Electrical Construction _____ (\$ _____)

The Owner intends to award this contract and have the Contractor start work on 9-1-10. The General Contractor must state who will be the Project Manager and the onsite Job Superintendent if awarded this job.

General Contractor Project Manager: _____ Yrs. Pr. Mgr. Exp: _____

General Contractor Job Superintendent: _____ Yrs. Supr. Exp: _____

(Name of firm or corporation making bid) (Contractor)

Witness: By: _____

Title: _____

(Proprietorship or Partnership)

(Owner/Partner/Corp. President or Vice President only)

Address: _____

License No.: _____

Federal ID No.: _____

(CORPORATE SEAL)

ATTEST:

By: _____

Title: _____

(Corp. Sec. or Ass't Sec. only)

SUPPLEMENTAL GENERAL CONDITIONS

SGC.00 – CONTENTS:

SGC.01	Enumeration of Plans
SGC.02	Construction Time
SGC.03	Liquidated Damages
SGC.04	Contract Documents
SGC.05	Shop Drawings and Submittals
SGC.06	The Contract Price and Request for Payment

SGC.01 – ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA:

Following are the Plans which form a part of this Contract as set forth in Article 1 – “Definitions” of the General Conditions of the Contract for Construction AIA form A201, which is also a part of these contract documents.

DRAWINGS:

Cover Sheet, Building Code Summaries	Nos. TS1
Building-Architectural	Nos. D1.0, A1.0
Building-Mechanical	Nos. MD1, M1
Building-Electrical	Nos. ED1, E1, E2

SPECIFICATIONS:

See Drawings Above

SGC.02 – CONSTRUCTION TIME:

The Contractors shall commence work to be performed according to the Contract Documents on a date to be specified in a “Written Notice to Proceed” from the Architect, and shall substantially complete all work by 7:00 a.m. on September 11, 2010 for the areas on the Maiden Lane (North) side of the building fire wall and by 7:00 a.m. on September 30, 2010 for all other areas. Contractors are expected to work seven (7) days a week, 24 hours per day if required to complete work by the specified deadline.

SGC.03 – LIQUIDATED DAMAGES:

For each day in excess of the substantial and full completion date deadline, any or all Contractors shall each be assessed \$1,000.00 per day for liquidated damages.

SGC.04 – CONTRACT DOCUMENTS: (Reference to General Conditions, Article 4)

The Contractor shall be furnished free of charge the following copies of the Plans and Specifications: Complete Sets: General - 10

Contractors will be charged, and shall pay the Owner’s cost per additional set of Contract Documents which it may require. Half size sets are available for purchase from the Architect. Half size sets of drawings shall not be used for construction purposes.

SGC.05 – SHOP DRAWINGS AND SUBMITTALS (Reference to General Conditions, Article 5)

The Contractor shall submit the appropriate information to the Architect and the Engineer (Plumbing, Mechanical, Electrical) via e-mail returned with approvals or corrections within 48 hours of submission.

SGC.06 – THE CONTRACT PRICE AND REQUEST FOR PAYMENT (Reference to General Conditions, Article 30)


The Contractor shall submit to the Architect three executed copies of the request for payment for 100% of the work once all work is complete. The request shall be in the form of AIA document G702. Payment will be made within 30 days of request.

SGC.07 – HVAC EQUIPMENT SPECIFICATION

Attached is the specification for the mechanical units for this project.

Axiom Water-Source Comfort Systems

Job Information

Largent - Applied Integrated Technology Raleigh (T01)Jeff Wotnosky			
Tag	3Ton-480/3	Unit configuration	High eff vertical R-410A
Model Number	GEVE0364	Nominal capacity	3 ton
Quantity	1	Development sequence	Development - R-410A
		Factory configuration	Standard factory configuration

Unit Information

Refrigeration circuit	Heating & cooling	Fluid type	Water
Design airflow	1255 cfm	Fluid concentration	
Min airflow	912 cfm	Fluid freeze point	32.00 F
Elevation	0.00 ft	Fluid flow rate	9.49 gpm
Filter type	2" filter	Fluid PD	15.69 ft H2O
Return air arrangement	Left	Piping arrangement	Standard
Factory supply air arrgmt	Top		

Blower/Electrical Information


Unit voltage	460v/60hz/3ph	Blower drive type	
ESP	0.500 in H2O	Blower quantity	1.00 Each
Total FLA	6.80 A	Blower speed	Medium Speed
Min circuit ampacity	8.08 A	Blower power	0.500 hp
Max fuse size or HACR	15.00 A		
Blower configuration	High static		

Main Coil Information

	Main Cooling	Main Heating
Net capacity	35.17 MBh	47.00 MBh
Net sensible capacity	25.33 MBh	
Heat of rejection	44.62 MBh	
Heat of absorption		36.32 MBh
Entering dry bulb	80.00 F	68.00 F
Entering wet bulb	67.00 F	
Leaving dry bulb	61.57 F	102.20 F
Leaving wet bulb	58.17 F	
Entering fluid temp	85.00 F	65.00 F
Leaving fluid temp	94.40 F	57.35 F
Power	2.77 kW	3.13 kW
Efficiency ratio @ ARI	13.4 EER	4.50 COP
Electric heat		0.00 kW
Electric heat FLA		0.00 A

Axiom Water-Source Comfort Systems

Job Information

Largent - Applied Integrated Technology Raleigh (T01)Jeff Wotnosky			
Tag	3Ton-480/3	Unit configuration	High eff vertical R-410A
Model Number	GEVE0364	Nominal capacity	3 ton
Quantity	1	Development sequence	Development - R-410A
		Factory configuration	Standard factory configuration

Information for LEED Projects


ASHRAE 90.1	Yes	EER @ ARI	13.4 EER
Refrig charge (HFC-410A) - ckt 1	3.2 lb	COP @ ARI	4.50 COP
Rated gross clg capacity (ARI)	2.99 tons	Compressor power	2.20 kW
		Blower power	0.500 hp

Notes: This product meets the minimum equipment efficiency requirements of ASHRAE Standard 90.1-2004 and -2007 (which are based on ARI standard rating conditions) and, therefore, also meets the LEED "Minimum Energy Performance" prerequisite in the Energy and Atmosphere section. The power data listed above is at actual user-entered conditions. Refer to the product catalog for performance at ARI standard rating conditions.

The LEED Green Building Rating System™, developed by the U.S. Green Building Council, provides independent, third-party verification that a building project meets green building and performance measures

Axiom Water-Source Comfort Systems

Job Information

Largent - Applied Integrated Technology Raleigh (T01)Jeff Wotnosky			
Tag	4 Ton-480/3	Unit configuration	High eff vertical R-410A
Model Number	GEVE0484	Nominal capacity	4 ton
Quantity	1	Development sequence	Development - R-410A
		Factory configuration	Standard factory configuration

Unit Information

Refrigeration circuit	Heating & cooling	Fluid type	Water
Design airflow	1693 cfm	Fluid concentration	
Min airflow	1216 cfm	Fluid freeze point	32.00 F
Elevation	0.00 ft	Fluid flow rate	7.20 gpm
Filter type	2" filter	Fluid PD	2.61 ft H2O
Return air arrangement	Left	Piping arrangement	Standard
Factory supply air arrgmt	Top		

Blower/Electrical Information


Unit voltage	460v/60hz/3ph	Blower drive type	
ESP	0.500 in H2O	Blower quantity	1.00 Each
Total FLA	9.80 A	Blower speed	Low Speed
Min circuit ampacity	11.58 A	Blower power	1.000 hp
Max fuse size or HACR	15.00 A		
Blower configuration	High static		

Main Coil Information

	Main Cooling	Main Heating
Net capacity	48.62 MBh	56.12 MBh
Net sensible capacity	36.08 MBh	
Heat of rejection	62.39 MBh	
Heat of absorption		43.68 MBh
Entering dry bulb	80.00 F	68.00 F
Entering wet bulb	67.00 F	
Leaving dry bulb	60.54 F	98.27 F
Leaving wet bulb	57.92 F	
Entering fluid temp	85.00 F	65.00 F
Leaving fluid temp	102.33 F	52.87 F
Power	4.04 kW	3.64 kW
Efficiency ratio @ ARI	13.2 EER	4.60 COP
Electric heat		0.00 kW
Electric heat FLA		0.00 A

Axiom Water-Source Comfort Systems

Job Information

Largent - Applied Integrated Technology Raleigh (T01)Jeff Wotnosky			
Tag	4 Ton-480/3	Unit configuration	High eff vertical R-410A
Model Number	GEVE0484	Nominal capacity	4 ton
Quantity	1	Development sequence	Development - R-410A
		Factory configuration	Standard factory configuration

Information for LEED Projects


ASHRAE 90.1	Yes	EER @ ARI	13.2 EER
Refrig charge (HFC-410A) - ckt 1	3.8 lb	COP @ ARI	4.60 COP
Rated gross clg capacity (ARI)	4.21 tons	Compressor power	3.21 kW
		Blower power	1.000 hp

Notes: This product meets the minimum equipment efficiency requirements of ASHRAE Standard 90.1-2004 and -2007 (which are based on ARI standard rating conditions) and, therefore, also meets the LEED "Minimum Energy Performance" prerequisite in the Energy and Atmosphere section. The power data listed above is at actual user-entered conditions. Refer to the product catalog for performance at ARI standard rating conditions.

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Axiom Water-Source Comfort Systems

Job Information

Largent - Applied Integrated Technology Raleigh (T01)Jeff Wotnosky			
Tag	5Ton-480/3	Unit configuration	High eff vertical R-410A
Model Number	GEVE0604	Nominal capacity	5 ton
Quantity	1	Development sequence	Development - R-410A
		Factory configuration	Standard factory configuration

Unit Information

Refrigeration circuit	Heating & cooling	Fluid type	Water
Design airflow	1973 cfm	Fluid concentration	
Min airflow	1520 cfm	Fluid freeze point	32.00 F
Elevation	0.00 ft	Fluid flow rate	10.12 gpm
Filter type	2" filter	Fluid PD	6.87 ft H2O
Return air arrangement	Left	Piping arrangement	Standard
Factory supply air arrgmt	Top		

Blower/Electrical Information


Unit voltage	460v/60hz/3ph	Blower drive type	
ESP	0.500 in H2O	Blower quantity	1.00 Each
Total FLA	11.70 A	Blower speed	High Speed
Min circuit ampacity	13.95 A	Blower power	1.000 hp
Max fuse size or HACR	20.00 A		
Blower configuration	High static		

Main Coil Information

	Main Cooling	Main Heating
Net capacity	60.27 MBh	73.91 MBh
Net sensible capacity	43.73 MBh	
Heat of rejection	77.50 MBh	
Heat of absorption		56.73 MBh
Entering dry bulb	80.00 F	68.00 F
Entering wet bulb	67.00 F	
Leaving dry bulb	59.76 F	102.21 F
Leaving wet bulb	57.29 F	
Entering fluid temp	85.00 F	65.00 F
Leaving fluid temp	100.32 F	53.79 F
Power	5.05 kW	5.04 kW
Efficiency ratio @ ARI	13.7 EER	4.60 COP
Electric heat		0.00 kW
Electric heat FLA		0.00 A

Axiom Water-Source Comfort Systems

Job Information

Largent - Applied Integrated Technology Raleigh (T01)Jeff Wotnosky			
Tag	5Ton-480/3	Unit configuration	High eff vertical R-410A
Model Number	GEVE0604	Nominal capacity	5 ton
Quantity	1	Development sequence	Development - R-410A
		Factory configuration	Standard factory configuration

Information for LEED Projects

ASHRAE 90.1	Yes	EER @ ARI	13.7 EER
Refrig charge (HFC-410A) - ckt 1	4.6 lb	COP @ ARI	4.60 COP
Rated gross clg capacity (ARI)	5.25 tons	Compressor power	4.04 kW
		Blower power	1.000 hp

Notes: This product meets the minimum equipment efficiency requirements of ASHRAE Standard 90.1-2004 and -2007 (which are based on ARI standard rating conditions) and, therefore, also meets the LEED "Minimum Energy Performance" prerequisite in the Energy and Atmosphere section. The power data listed above is at actual user-entered conditions. Refer to the product catalog for performance at ARI standard rating conditions.

The LEED Green Building Rating System™, developed by the U.S. Green Building Council, provides independent, third-party verification that a building project meets green building and performance measures

**General - High efficiency horizontal & vertical unit**

Equipment shall be completely assembled, piped, internally wired, fully charged with R410A and test operated at the factory. Filters, thermostat field interface terminal strip, and all safety controls are furnished and factory installed.

The system water inlet and outlet connections shall be female NPT composed of either copper or a bronze option.

The equipment shall contain ETL, CETL, and ARI-ISO 13256-1 listings and labels prior to leaving the factory. Service and caution area labels shall also be placed on the unit in their appropriate locations

Sound attenuation package

Sound attenuation will be applied as a standard feature in the product design. The sound reduction package (1/2 through 5-ton equipment) will include a compressor discharge muffler, vibration isolation to the compressor and water-to-refrigerant coil, unit base stiffeners, insulated metal compressor enclosure, and a second stage of vibration isolation to the compressor and water-to-refrigerant base pan.

The unit shall be tested and rated in accordance with ARI 260.

Compressor - Horizontal or vertical units

The unit shall contain a high efficiency rotary, reciprocating, or scroll compressor. External vibration isolation shall be provided by rubber mounting devices located underneath the mounting base of the compressor. A second isolation of the refrigeration assembly shall be supported under the compressor mounting base. Internal thermal overload protection shall be provided. Protection against excessive discharge pressure shall be provided by means of a high pressure switch. Protection against a loss of charge shall be provided by a low pressure safety.

Electrical

The unit control box shall contain all necessary devices to allow heating and cooling operation to occur from a remote wall thermostat. These devices shall be as follows:

-24 VAC energy limiting class II 50 VA (minimum) transformer

-24 VAC blower motor relay

-24 VAC compressor contactor for compressor control

-Field thermostat connections shall be provided for ease of hook-up to a terminal strip located in the unit's control box

-Lockout relay which controls cycling of the compressor shall be provided to protect the compressor during adverse operating conditions. The device may be reset by interrupting power to the 24 VAC control circuit. Reset may be done either at a remote thermostat or through a momentary main power interruption.

Deluxe controller

The deluxe control package provides a 50 VA transformer. The controller includes a lockout relay, anti-short cycle compressor protection, random start delay, brown-out protection, time delay, general alarm, compressor delay on start and an open relay for night setback or pump request. Optional wiring from the factory for night setback, condensate overflow, hot gas reheat, electric heat and compressor enable is provided. Three LED (light emitting diodes) are included for diagnostics of the equipment.

Drain pan



The condensate pan shall be constructed of corrosion resistant material and insulated to prevent sweating. The bottom of the drain pan shall be sloped on two planes which pitches the condensate to the drain connection, this positively sloped drain pan complies with ASHRAE 62 for IAQ conformity. When the unit is installed and trapped per the manufacturer's installation manual, and local city specifications, the drain pan shall be designed to leave puddles no more than 2-inches in diameter, no more than 1/8-inch deep, no longer than 3-minutes following step 3 of the following test.

1. Temporarily plug the drain pan.
2. Fill the drain pan with 1/2-inch of water or the maximum allowed by the drain pan depth, whichever is smaller.
3. Remove the temporary plug.

Motor/Fan

The motor has a permanent split capacitor with thermal overload protection. Options of standard static or high static can be selected. The motor contains a quick disconnect plug and permanently lubricated bearing. The fans are placed in a draw-through configuration. They are constructed of corrosion resistant galvanized material. Removal of the motor and fan wheel can be made with the assistance of a factory provided orifice ring device. This device attaches the wheel and motor to the fan housing in a single assembly eliminating the need for access to the set screw on the backside of the fan hub.

2" [51mm] throw away filter

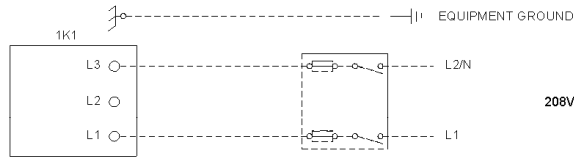
A 2" [51 mm] throw away fiberglass filter will be included. The filter has an average arrestance of 76 percent and dust holding capacity of 26 grams per square foot. The dust holding capability should include a colorless and odorless adhesive which retains dirt particles within the filter media after they have contacted the fibers.

Thermostatic expansion valve

The equipment is provided with a bi-directional thermal expansion valve. This device allows operation of the equipment in the range of 25 to 110 degrees F entering fluid temperatures and 40 to 95 degrees F entering air temperatures. The equipment operates with one variable (entering water temperature, entering air temperature, cfm or gpm) at an extreme condition. All other variables must be within the nominal range of operation.



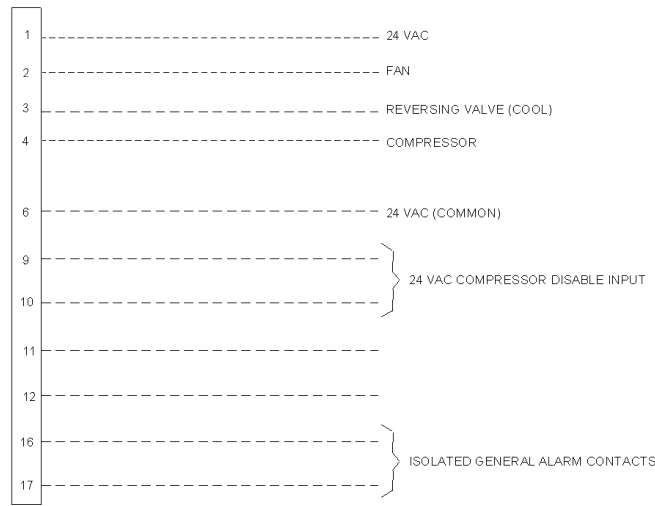
UNIT POWER WIRING 1 PHASE POWER SUPPLY



FIELD WIRING BELOW IS FOR THERMOSTAT CONNECTIONS

GENERIC DELUXE THERMOSTAT CONNECTION

UNIT CONNECTIONS 1TB1



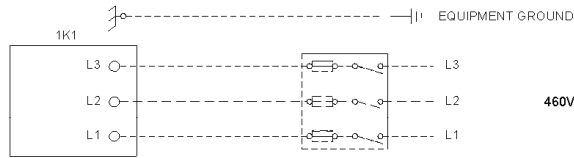
NOTES:

1. DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY OTHERS. SOLID LINES INDICATE WIRING BY THE TRANE CO.
2. ALL FIELD WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), STATE, AND LOCAL REQUIREMENTS.

<p style="text-align: center;">⚠ WARNING</p> <p style="text-align: center;">HAZARDOUS VOLTAGE!</p> <p>DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS AND FOLLOW LOCK-OUT AND TAG PROCEDURES BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE REFER TO DRIVE INSTRUCTIONS FOR CAPACITOR DISCHARGE.</p> <p>FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.</p>	<p style="text-align: center;">⚠ AVERTISSEMENT</p> <p style="text-align: center;">TENSION DANGEREUSE!</p> <p>COUPER TOUTES LES TENSIONS ET OUVRIRE LES SECTIONNEURS À DISTANCE. PUIS SUIVRE LES PROCÉDURES DE VERROUILLAGE ET DES ÉTIQUETTES AVANT TOUTE INTERVENTION. VÉRIFIER QUE TOUTS LES CONDENSATEURS DES MOTEURS SONT DÉCHARGÉS. DANS LE CAS D'UNITES COMPORTANT DES ENTRAÎNEMENTS À VITESSE VARIABLE, SE REPORTER AUX INSTRUCTIONS D'ENTRAÎNEMENT POUR DÉCHARGER LES CONDENSATEURS.</p> <p>NE PAS RESPECTER CES MESURES DE PRÉCAUTION PEUT ENTRAÎNER DES BLESSURES GRAVES POUVANT ÊTRE MORTELLES.</p>	<p style="text-align: center;">⚠ ADVERTENCIA</p> <p style="text-align: center;">VOLTAJE PELIGROSO!</p> <p>DESCONECTE TODA LA ENERGÍA ELÉCTRICA, INCLUIDO LAS DESCONEXIONES REMOTAS Y SIGA LOS PROCEDIMIENTOS DE CIERRE Y ETIQUETADO ANTES DE PROCEDER AL SERVICIO. ASEGURESE DE QUE TODOS LOS CAPACITORES DEL MOTOR HAYAN DESCARGADO EL VOLTAJE ALMACENADO. PARA LAS UNIDADES CON SIE DE DRECCION DE VELOCIDAD VARIABLE, CONSULTE LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR.</p> <p>EL NO REALIZAR LO ANTERIORMENTE INDICADO, PODRÍA OCASIONAR LA MUERTE O SERIAS LESIONES PERSONALES.</p>
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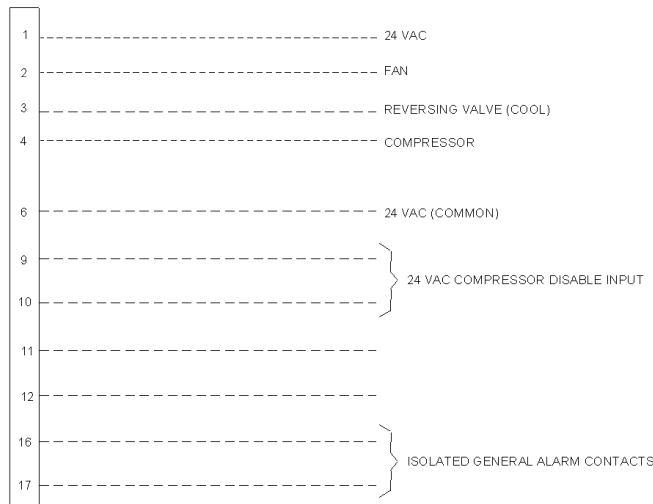
UNIT POWER WIRING 3 PHASE POWER SUPPLY



FIELD WIRING BELOW IS FOR THERMOSTAT CONNECTIONS

GENERIC DELUXE THERMOSTAT CONNECTION

UNIT CONNECTIONS
 1TB1



NOTES:

- DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY OTHERS. SOLID LINES INDICATE WIRING BY THE TRANE CO.
- ALL FIELD WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), STATE, AND LOCAL REQUIREMENTS.

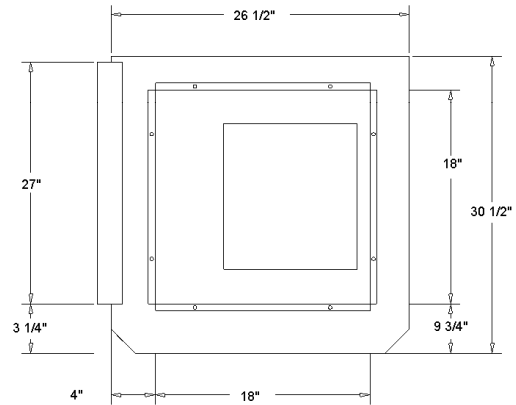
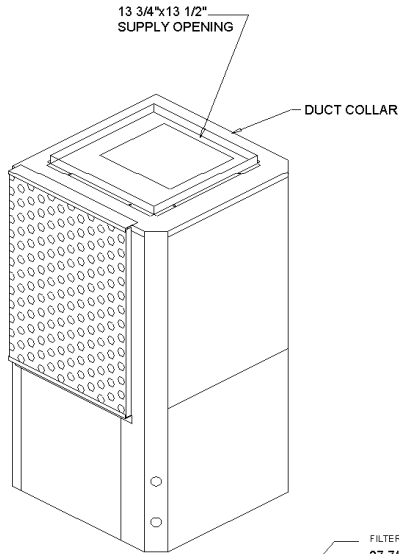
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Water Source Comfort System
 Items: 5Ton-208/1, 5Ton-480/3, 4 Ton-208/1, 4 Ton-480/3
 Qty: 4 Tags: 5Ton-208/1, 5Ton-480/3, 4 Ton-208/1, 4 Ton-480/3
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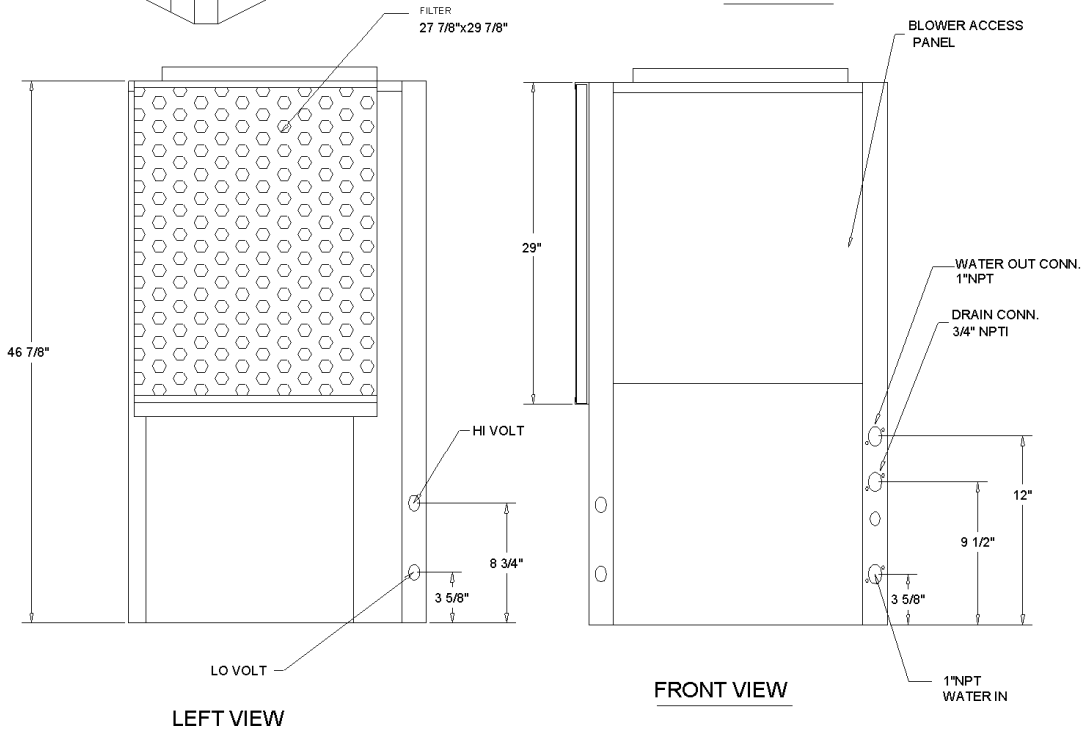
Largent - Applied Integrated Technology



WEIGHT	
WORKING	348.0 lb
SHIPPING	396.0 lb

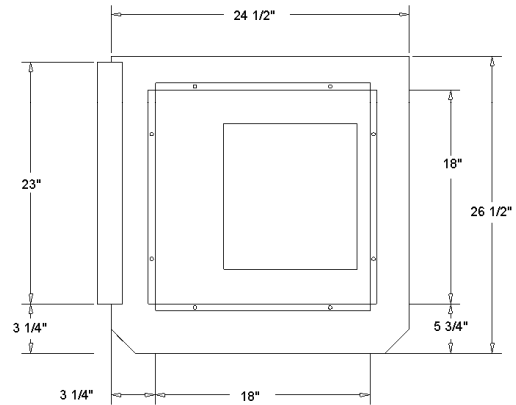
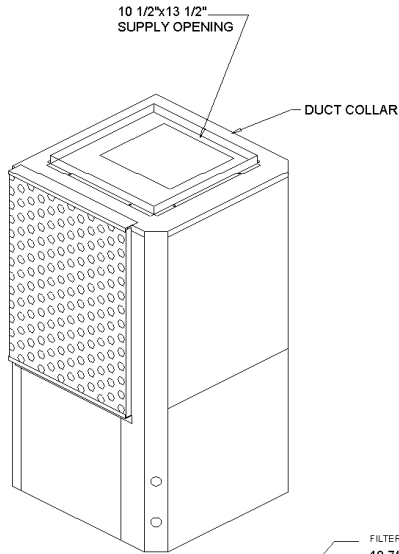


TOP VIEW





WEIGHT	
WORKING	288.0 lb
SHIPPING	308.0 lb



TOP VIEW

