

Virginia Military Institute

Lexington, Virginia 24450-0304

PURCHASING OFFICE

Phone 540-464-7323

Fax 540-464-7669

Voice/TDD 540-464-7616

INVITATION FOR BID

IFB #V211-02-052

Issue Date: 9 October 2001

Title: Water Chiller and Air Cooled Condenser
Lejuene Hall

Issuing Agency: Purchasing Office
Virginia Military Institute
Lexington, Virginia 24450

Using Agency And/Or Location: Buildings and Grounds
Where Work Will Be Performed: Virginia Military Institute
Lexington, Virginia 24450

Period of Contract: From Notice of Award Through 15 January 2002

Sealed Bids Will Be Received Until 2 PM local prevailing time, Tuesday 30 October 2001 for furnishing the goods and services described herein and then opened and read in public.

All Inquiries For Information Should Be Directed To: Purchasing Office, 314 Smith Hall (540) 464-7734.

IF BIDS ARE MAILED, SEND DIRECTLY TO ISSUING AGENCY SHOWN ABOVE, IF BIDS ARE HAND DELIVERED, DELIVER TO: PURCHASING OFFICE, 314 SMITH HALL, VIRGINIA MILITARY INSTITUTE, LEXINGTON, VIRGINIA 24450.

In Compliance With This Invitation For Bids And To All The Conditions Imposed Herein, The Undersigned Offers And Agrees To Furnish The Labor, Materials and Equipment Described At The Price(s) Indicated On The Bid Form.

Name And Address Of Firm

Date: _____

By: _____

Signature in Ink

Title: _____

Telephone Number: _____

FEI/FIN No. _____

Fax Number: _____

**NOTE: RETURN OF THIS COMPLETE DOCUMENT IS REQUIRED WHEN SUBMITTING BIDS.
(REFERENCE SECTION IV(H))**

Mandatory pre-bid conference will be held on at 11:00 AM Tuesday, 23 October 2001 in Lejuene Hall on the VMI Post.

Note: If you are an individual with a disability and need reasonable accommodations, please contact Mrs. Wilson (540) 464-7323, no later than 22 October 2001, 12:00 noon EDT.



TABLE OF CONTENTS		Page
I.	Purpose	3
II.	Scope of Work	3
III.	Mandatory Prebid Conference	3
IV.	General Terms and Conditions	3
V.	Special Terms and Conditions	9
VI.	Additional Terms and Conditions	11
VII.	Method of Payment	21
VIII.	Pricing Schedule	21
	Attachment 1	22
	Attachment 2	29

I. PURPOSE

The purpose and intent of this Invitation for Bid is to establish a firm fixed contract price with a qualified firm to furnish and install a water chiller and air cooled condenser per attachment 1 specifications at Virginia Military Institute, an agency of the Commonwealth of Virginia.

II. SCOPE OF WORK

The Contractor shall furnish all parts, labor, supervision, transportation, any miscellaneous equipment and material required to complete all work described in attachment 1.

III. MANDATORY PREBID CONFERENCE: A mandatory prebid conference will be at 11:00 AM Tuesday 23 October 2001 at Lejuene Hall on the VMI Post. The purpose of this conference is to allow potential bidders an opportunity to present questions and obtain clarification relative to any facet of this solicitation. Due to the importance of all bidders having a clear understanding of the specifications/scope of work and requirements of this solicitation, attendance at this conference will be a prerequisite for submitting a bid. Bids will only be accepted from those bidders who are represented at this prebid conference. Attendance at the conference will be evidenced by the representative's signature on the attendance roster. Bring a copy of the solicitation with you. Any changes resulting from this conference will be issued in a written addendum to the solicitation.

IV. GENERAL TERMS AND CONDITIONS

- A. **PURCHASING MANUAL:** This solicitation is subject to the provisions of the Commonwealth of Virginia Purchasing Manual for Institutions of Higher Education and Their Vendors and any revisions thereto, which are hereby incorporated into this contract in their entirety. A copy of the manual is available for review at the purchasing office. In addition, the manual may be accessed electronically at <http://www.vcu.edu/procurement> or a copy may be obtained by calling VMI Purchasing at (540) 464-7323.
- B. **APPLICABLE LAWS AND COURTS:** This solicitation and any resulting contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The Contractor shall comply with all applicable federal, state and local laws, rules and regulations.
- C. **ANTI-DISCRIMINATION:** By submitting their bids, Bidders certify to the Commonwealth that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and Section 11-51 of the Virginia Public Procurement Act.

In every contract over \$10,000 the provisions in 1. and 2. below apply:

- 1. During the performance of this contract, the Contractor agrees as follows:
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, disability, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
 - b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.

- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or, regulation shall be deemed sufficient for the purpose of meeting these requirements.
 2. The Contractor will include the provisions of 1. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
- D. **ETHICS IN PUBLIC CONTRACTING:** By submitting their bids, Bidders certify that their bids are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other Bidder, supplier, manufacturer or subcontractor in connection with their bid, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.
- E. **IMMIGRATION REFORM AND CONTROL ACT OF 1986:** By submitting their bids, Bidders certify that they do not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.
- F. **DEBARMENT STATUS:** By submitting their bids, Bidders certify that they are not currently debarred by the Commonwealth of Virginia from submitting bids or proposals on contracts for the type of goods and/or services covered by this solicitation, nor are they an agent of any person or entity that is currently so debarred.
- G. **ANTITRUST:** By entering into a contract, the Contractor conveys, sells, assigns, and transfers to the Commonwealth of Virginia all rights, title and interest in and to all causes of the action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the Commonwealth of Virginia under said contract.
- H. **MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS FOR IFBS:**
- (1) **For Invitation For Bids:** Failure to submit a bid on the official state form provided for that purpose shall be a cause for rejection of the bid. Modification of or additions to any portion of the Invitation for Bids may be cause for rejection of the bid; however, the Commonwealth reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject such a bid as nonresponsive. As a precondition to its acceptance, the Commonwealth may, in its sole discretion, request that the Bidder withdraw or modify nonresponsive portions of a bid which do not affect quality, quantity, price, or delivery. No modification of or addition to the provisions of the contract shall be effective unless reduced to writing and signed by the parties.
 - (2) **For Request for Proposal:** Failure to submit a proposal on the official state form provided for that purpose may be cause for rejection of the proposal. Modification of or additions to the General Terms and Conditions of the solicitation may be cause for rejection of the proposal; however, the Commonwealth reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject such a proposal.
- I. **CLARIFICATION OF TERMS:** If any prospective Bidder has questions about the specifications or other solicitation documents, the prospective Bidder should contact the buyer whose name appears on the face of the solicitation no later than five working days before the due date. Any revisions to the solicitation will be made only by addendum issued by the buyer.

J. PAYMENT:

1. To Prime Contractor:

- a. Invoices for items ordered, delivered and accepted shall be submitted by the Contractor directly to the payment address shown on the purchase order/contract. All invoices shall show the state contract number and/or purchase order number; social security number (for individual contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations).
- b. Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 30 days, however.
- c. All goods or services provided under this contact or purchase order, that are to be paid for with public funds, shall be billed by the Contractor at the contract price, regardless of which public agency is being billed.
- d. The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act.
- e. Unreasonable Charges. Under certain emergency procurements and for most time and material purchases, final job costs cannot be accurately determined at the time orders are placed. In such cases, contractors should be put on notice that final payment in full is contingent on a determination of reasonableness with respect to all invoiced charges. Charges which appear to be unreasonable will be researched and challenged, and that portion of the invoice held in abeyance until a settlement can be reached. Upon determining that invoiced charges are not reasonable, the Commonwealth shall promptly notify the contractor, in writing, as to those charges which it considers unreasonable and the basis for the determination. A contractor may not institute legal action unless a settlement cannot be reached within thirty (30) days of notification. The provisions of this section do not relieve an agency of its prompt payment obligations with respect to those charges which are not in dispute (*Code of Virginia, §11-69*).

2. To Subcontractors:

- a. A Contractor awarded a contract under this solicitation is hereby obligated:
 - (1) To pay the subcontractor(s) within seven (7) days of the Contractor's receipt of payment from the Commonwealth for the proportionate share of the payment received for work performed by the subcontractor(s) under the contract; or
 - (2) To notify the agency and the subcontractor(s), in writing, of the Contractor's intention to withhold payment and the reason.
- b. The Contractor is obligated to pay the subcontractor(s) interest at the rate of one percent per month (unless otherwise provided under the terms of the contract) on all amounts owed by the Contractor that remain unpaid seven (7) days following receipt of payment from the Commonwealth, except for amounts withheld as stated in (2) above. The date of mailing of any payment by U. S. Mail is deemed to be payment to the addressee. These provisions apply to each sub-tier Contractor performing under the primary contract. A Contractor's obligation to pay an interest charge to a subcontractor may not be construed to be an obligation of the Commonwealth.

- K. PRECEDENCE OF TERMS: Paragraphs A-J of these General Terms and Conditions shall apply in all instances. In the event there is a conflict between any of the other General Terms and Conditions and any Special Terms and Conditions in this solicitation, the Special Terms and Conditions shall apply.
- L. QUALIFICATIONS OF BIDDERS: The Commonwealth may make such reasonable investigations as deemed proper and necessary to determine the ability of the Bidder to perform the services/furnish the goods and the Bidder shall furnish to the Commonwealth all such information and data for this purpose as may be requested. The Commonwealth reserves the right to inspect Bidder's physical facilities prior to award to satisfy questions regarding the Bidder's capabilities. The Commonwealth further reserves the right to reject any bid if the evidence submitted by, or investigations of, such Bidder fails to satisfy the Commonwealth that such Bidder is properly qualified to carry out the obligations of the contract and to provide the services and/or furnish the goods contemplated therein.
- M. TESTING AND INSPECTION: The Commonwealth reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications.
- N. ASSIGNMENT OF CONTRACT: A contract shall not be assignable by the Contractor in whole or in part without the written consent of the Commonwealth.
- O. CHANGES TO THE CONTRACT: Changes can be made to the contract in any of the following ways:
1. The parties may agree in writing to modify the scope of the contract. An increase or decrease in the price of the contract resulting from such modification shall be agreed to by the parties as a part of their written agreement to modify the scope of the contract.
 2. The Purchasing Agency may order changes within the general scope of the contract at any time by written notice to the Contractor. Changes within the scope of the contract include, but are not limited to, things such as services to be performed, the method of packing or shipment, and the place of delivery or installation. The Contractor shall comply with the notice upon receipt. The Contractor shall be compensated for any additional costs incurred as the result of such order and shall give the Purchasing Agency a credit for any savings. Said compensation shall be determined by one of the following methods:
 - a. By mutual agreement between the parties in writing; or
 - b. By agreeing upon a unit price or using a unit price set forth in the contract, if the work to be done can be expressed in units, and the Contractor accounts for the number of units of work performed, subject to the Purchasing Agency's right to audit the Contractor's records and/or to determine the correct number of units independently; or
 - c. By ordering the Contractor to proceed with the work and keep a record of all costs incurred and savings realized. A markup for overhead and profit may be allowed if provided by the contract. The same markup shall be used for determining a decrease in price as the result of savings realized. The Contractor shall present the Purchasing Agency with all vouchers and records of expenses incurred and savings realized. The Purchasing Agency shall have the right to audit the records of the Contractor as it deems necessary to determine costs or savings. Any claim for an adjustment in price under this provision must be asserted by written notice to the Purchasing Agency within thirty (30) days from the date of receipt of the written order from the Purchasing Agency. If the parties fail to agree on an amount of adjustment, the question of an increase or decrease in the contract price or time for performance shall be resolved in accordance with the procedures for resolving disputes provided by the Disputes Clause of this contract or, if there is none, in accordance with the disputes provisions of the Purchasing Manual for Institutions of Higher Education and Their Vendors. Neither the existence of a claim nor a dispute resolution process, litigation or any other provision of this contract shall excuse the

Contractor from promptly complying with the changes ordered by the Purchasing Agency or with the performance of the contract generally.

- P. DEFAULT: In case of failure to deliver goods or services in accordance with the contract terms and conditions, the Commonwealth, after due oral or written notice, may procure them from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which the Commonwealth may have.
- Q. TAXES: Sales to the Commonwealth of Virginia are normally exempt from State sales tax. State sales and use tax certificates of exemption, Form ST-12, will be issued upon request. Deliveries against this contract shall usually be free of Federal excise and transportation taxes. The Commonwealth's excise tax exemption registration number is 54-73-0076K.
- R. USE OF BRAND NAMES: Unless otherwise provided in this solicitation, the name of a certain brand, make or manufacturer does not restrict Bidders to the specific brand, make or manufacturer named, but conveys the general style, type, character, and quality of the article desired. Any article which the public body, in its sole discretion, determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. The Bidder is responsible to clearly and specifically identify the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable the Commonwealth to determine if the product offered meets the requirements of the solicitation. This is required even if offering the exact brand, make or manufacturer specified. Normally in competitive sealed bidding only the information furnished with the bid will be considered in the evaluation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid nonresponsive. Unless the Bidder clearly indicates in its bid that the product offered is an "equal" product, such bid will be considered to offer the brand name product referenced in the solicitation.
- S. TRANSPORTATION AND PACKAGING: By submitting their bids, all Bidders certify and warrant that the price offered for FOB destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped. Except as otherwise specified herein, standard commercial packaging, packing and shipping containers shall be used. All shipping containers shall be legibly marked or labeled on the outside with purchase order number, commodity description, and quantity.
- T. INSURANCE:
- By signing and submitting a bid or proposal under this solicitation, the Bidder or Offeror certifies that if awarded the contract, it will have the following insurance coverage at the time the contract is awarded. For construction contracts, if any subcontractors are involved, the subcontractor will have workers' compensation insurance in accordance with Sections 11-46.3 and 65-800 et seq. of the *Code of Virginia*. The Bidder or Offeror further certifies that the Contractor and any subcontractors will maintain these insurance coverages during the entire term of the contract and that all insurance coverages will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

INSURANCE COVERAGE AND LIMITS REQUIRED:

- A. Worker's Compensation - Statutory requirements and benefits; require that the Commonwealth of Virginia be added as an additional named insured on contractor's policy.
- B. Employers Liability - \$100,000.
- C. Commercial General Liability - \$500,000 combined single limit. Commercial General Liability is to include Premises/Operations Liability, Products and Completed Operations Coverage, Independent Contractor's Liability or Owner's and Contractor's Protective Liability.. The Commonwealth of Virginia must be named as an additional insured when requiring a Contractor to obtain Commercial General Liability coverage.

- D. Automobile Liability - \$500,000 - combined single limit (Only used if motor vehicle is to be used in the contract.)

NOTE: In addition, various Professional Liability/Errors and Omissions coverage are required when soliciting those services shown below:

<u>Profession/ Service</u>	<u>Limits</u>
Accounting	\$1,000,000 occurrence, \$3,000,000 aggregate
Architecture	\$2,000,000 occurrence, \$6,000,000 aggregate
Asbestos Design, Inspection or Abatement Contractors	\$1,000,000 occurrence, \$3,000,000 aggregate
Health Care Practitioner (to include Dentists, Optometrists, Nurses, Pharmacists, Doctors, etc.)	\$1,500,000 occurrence, \$3,000,000 aggregate
Insurance/ Risk Management	\$1,000,000 per occurrence, \$3,000,000 aggregate
Landscape/ Architecture	\$500,000 occurrence, \$1,000,000 aggregate
Legal	\$1,000,000 occurrence, \$5,000,000 aggregate
Professional Engineer	\$2,000,000 occurrence, \$6,000,000 aggregate
Surveying	\$100,000 occurrence, \$300,000 aggregate

- U. ANNOUNCEMENT OF AWARD: Upon the award or the announcement of the decision to award a contract as a result of this solicitation, the purchasing agency will publicly post such notice on VMI Purchasing Office website and building bulletin board for a minimum of 10 days.
- V. DRUG-FREE WORKPLACE: During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employee's; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the forgoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

V. SPECIAL TERMS AND CONDITIONS

- A. **AUDIT:** The Contractor hereby agrees to retain all books, records, and other documents relative to this contract for five (5) years after final payment, or until audited by the Commonwealth of Virginia, whichever is sooner. The Institute, its authorized agents, and/or State auditors shall have full access to and the right to examine any of said materials during said period.
- B. **BID BOND OR GUARANTEE:** Each bid shall be accompanied by a bid bond or guarantee of five percent (5%) of the amount of the bid, which shall be a certified check, cash escrow, or a bid bond payable to the Treasurer of Virginia Military Institute. The sureties of all bonds shall be of such surety company or companies as are approved by the State and are authorized to transact business in the Commonwealth of Virginia. Such bid bond or check shall be submitted with the understanding that it shall guarantee that the bidder will not withdraw such bid during the period of 30 days following the opening of the bids; that if such bid is accepted, the bidder will accept and perform under the terms of the Invitation for Bid and purchase order or contract. The bid guarantee will be returned upon award of contract.
- C. **BID ACCEPTANCE PERIOD:** Any bid in response to this solicitation shall be valid for thirty (30) days. At the end of the thirty (30) days, the bid may be withdrawn at the written request of the Bidder. If the bid is not withdrawn at that time it remains in effect until an award is made of the solicitation is canceled.
- D. **IDENTIFICATION OF BID ENVELOPE:** If a special envelope is not furnished, or if return in the special envelope is not possible, the signed bid should be returned in a separate envelope or package, sealed and identified as follows:

From: _____ <div style="text-align: center; margin-left: 100px;">Name of Bidder</div> _____ Street or Box Number	_____ <div style="text-align: center; margin-left: 100px;">Due Date</div> <div style="text-align: center; margin-left: 100px;">Time</div> _____ <div style="text-align: center; margin-left: 100px;">IFB No.</div> _____ <div style="text-align: center; margin-left: 100px;">IFB Title</div>
_____ City, State, Zip Code	

Name of Contract/Purchase Officer or Buyer: _____

The envelope should be addressed as directed on page 1 of the solicitation.

If a bid not contained in the special envelope is mailed, the bidder or offeror takes the risk that the envelope, even if marked as described above, may be inadvertently opened and the information compromised which may cause the bid or proposal to be disqualified. Bids may be hand delivered to the designated location in the office issuing the solicitation. No other correspondence or other bids should be place in the envelope.

- E. **AWARD:** The purchasing agency will make the award on an **Firm Fixed Contract Price** to the lowest responsive and responsible bidder. Due consideration will be given to price, quality as judged by tests and previous experience, and the ability of the bidder to render required services. The purchasing office reserves the right to conduct any test it may deem advisable and to make all evaluations. The purchasing office also reserves the right to reject any or all bids, in whole or in part, to waive informalities and to delete items prior to making the award, whenever it is deemed in the sole opinion of the Institute to be in its best interest.
- F. **AVAILABILITY OF FUNDS:** It is understood and agreed between the parties herein that the Institute shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.

- G. **CONTRACTOR REGISTRATION:** If a contract for construction, removal, repair or improvement of a building or other real property is for seventy thousand dollars (\$70,000) or more, or if the total value of all such contracts undertaken by bidder within any twelve-month period is five hundred thousand dollars (\$500,000) or more, the bidder is required under Title 54.1; Code of Virginia (1950), as amended, to be licensed by the State Board of Contractors as a "CLASS A CONTRACTOR". If such a contract is for seventy-five hundred dollars (\$7,500) or more but less than seventy thousand dollars (\$70,000), (one thousand dollars [\$1,000] for electrical, plumbing, and HVAC work) the bidder is required to be licensed as a "CLASS B CONTRACTOR". If such a contract is for one thousand dollars (\$1,000) or more but less than seventy-five hundred dollars (\$7,500) and is not for electrical, plumbing and HVAC work, the Bidder is required to be licensed as a "CLASS C CONTRACTOR". The bidder shall place on the outside of the envelope containing the bid and shall place in the bid over his signature whichever of the following notations is appropriate, inserting his contractor license number:

Licensed Class A Virginia Contractor No. _____
Specialty No. _____

Licensed Class B Virginia Contractor No. _____
Specialty No. _____

Licensed Class C Virginia Contractor No. _____
Specialty No. _____

If the bidder shall fail to provide this information on his bid or on the envelope containing the bid and shall fail to promptly provide said contractor license number to the

Commonwealth in writing when requested to do so before or after the opening of Bids, he shall be deemed to be in violation of Section 54.1-1115 of the Code of Virginia (1950), as amended, and his bid proposal will not be considered.

If a bidder shall fail to obtain the required license prior to submission of his bid, the bid shall not be considered.

- H. **PERFORMANCE AND PAYMENT BONDS:** The successful bidder shall deliver to the purchasing office executed Commonwealth of Virginia Standard Performance and Labor and Material Payment Bonds, each in the sum of the contract amount, with the Commonwealth of Virginia as obligee. The surety shall be a surety company or companies approved by the State Corporation Commission to transact business in the Commonwealth of Virginia. No payment shall be due and payable to the contractor, even if the contract has been performed in whole or in part, until the bonds have been delivered to and approved by the purchasing office. Standard bond forms will be provided by the purchasing office prior to the time of award.
- I. **INSPECTION OF JOB SITE:** My signature on this solicitation constitutes certification that I have inspected the job site and am aware of the conditions under which the work must be accomplished. Claims, as a result of failure to inspect the job site, will not be considered by the Commonwealth.
- J. **WORK SITE DAMAGE:** Any damage to existing utilities, equipment or finished surfaces resulting from the performance of this contract shall be repaired to the Institute's satisfaction at the Contractor's expense.
- K. **MANDATORY PREBID CONFERENCE:** A mandatory prebid conference will be at 11:00 AM Tuesday 23 October 2001 at Lejuene Hall on the VMI Post. The purpose of this conference is to allow potential bidders an opportunity to present questions and obtain clarification relative to any facet of this solicitation. Due to the importance of all bidders having a clear understanding of the specifications/scope of work and requirements of this solicitation, attendance at this conference will be a prerequisite for submitting a bid. Bids will only be accepted from those bidders who are represented at this prebid conference. Attendance at the conference will be evidenced by the representative's signature on the attendance roster. Bring a copy of the solicitation with you. Any changes resulting from this conference will be issued in a written addendum to the solicitation.

VI. ADDITIONAL TERMS AND CONDITIONS

1. **DEFINITIONS:** Whenever used in this solicitation or in the contract documents, the following terms have the meanings indicated, which are applicable to both the singular and plural and the male and female gender thereof:
 - (a) Agency: The term, agency, unless otherwise indicated, shall mean the owner.
 - (b) Commonwealth: The term "Commonwealth" shall mean the owner which is the Commonwealth of Virginia through the governing Body, the Board, the Building Committee or other agent with authority to execute the contract for the institution or agency involved. The Commonwealth's agent is the official with the authority to sign the contract on behalf of the Commonwealth.
 - (c) Construction: As used in these documents shall include new construction, reconstruction, renovation, restoration, major repair, demolition and all similar work upon buildings and ancillary facilities owned or to be acquired by the Commonwealth and any draining, dredging, excavation, grading, or similar work upon real property.
 - (d) Contractor: The person, firm or corporation with whom the owner has entered into a contractual agreement and includes the plural number and the feminine gender when such are named in the contract as the contractor.
 - (e) Defective: An adjective which when modifying the word work, refers to work that is unsatisfactory, faulty, or deficient, or does not conform to the contract documents, or does not meet the requirements of any inspections, standard, test, or approval referred to in the contract documents, or has been damaged prior to final payment.
 - (f) Emergency: Any unforeseen combination of circumstances or a resulting state that poses imminent danger to health, life, or property.
 - (g) Final Acceptance: The agency's acceptance of the project from the contractor upon confirmation from the project inspector and the contractor that the project is totally complete in accordance with the contract requirements and that all defects have been eliminated. Final acceptance is confirmed by the making of final payment of the contract amount including any change orders or adjustment thereto.
 - (h) Notice: All written notices, demands, instructions, claims, approvals, and disapprovals required to obtain compliance with the contract requirements. Any written notice by either party to the contract shall be sufficiently given if delivered to or at the last known business address of the person, firm or corporation constituting the party to the contract, or to his, their or its authorized agent, representative or officer, or when enclosed in a postage prepaid envelope addressed to such last known business address and deposited in a United States mailbox.
 - (i) Notice to Proceed: A written notice given by the owner to the contractor fixing the date on which the contract time will commence for the contractor to begin the prosecution of the work in accordance with the requirements of the contract documents.
 - (j) Owner: The Commonwealth of Virginia, i.e., an agency, institution, or department, with whom the contractor has entered into a contract and for whom the work or services is to be provided.
 - (k) Project Inspector: One or more individuals employed by the owner to inspect the work and/or to act as clerk of the works to the extent required by the owner. The owner shall notify the contractor in writing of the appointment of such project inspector(s).
 - (l) Provide: Shall mean furnish and install ready for its intended use.
 - (m) Submittal: All drawings, diagrams, illustrations, schedules, and other data required by the contract documents which are specifically prepared by or for the contractor to illustrate some portion of the work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams,

and other information prepared by a supplier and submitted by the contractor to illustrate material or equipment for some portion of the work.

- (n) Subcontractor: An individual, partnership or corporation having a direct contract with contractor or with any other subcontractor for the performance of the work. It includes one who provides on-site labor but does not include one who only furnishes or supplies materials for the project.
- (o) Substantial Completion: The work which is sufficiently complete, in accordance with the contract documents, so that the project can be utilized by the owner for the purposes for which it is intended.
- (p) Supplier: A manufacturer, fabricator, distributor, materialman, or vendor who provides material for the project but does not provide on-site labor.
- (q) Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which are or have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone, or other communications, cable television, sewage and drainage removal, traffic, or other control systems or water.
- (r) Work: The entire completed construction or the various separately identifiable parts thereof required to be furnished under the contract documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the contract documents.

2. CONTRACT DOCUMENTS:

- (a) The contract entered into by the parties shall consist of the Invitation for Bids, the bid submitted by the contractor; General Terms and Conditions, these Additional Terms and Conditions; the Special Terms and Conditions; the drawings, if any; the specifications; and all modifications and addenda to the foregoing documents, all of which shall be referred to collectively as the contract documents.
- (b) All time limits stated in the contract documents, including but not limited to the time for completion of the work, are of the essence of the contract.
- (c) Anything called for by one of the contract documents and not called for by the others shall be of like effect as if required or called for by all, except that a provision clearly designed to negate or alter a provision contained in one or more of the other contract documents shall have the intended effect.

3. LAWS AND REGULATIONS:

- (a) The contractor shall comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the work and shall give all notices required thereby.
- (b) This contract and all other contracts and subcontracts are subject to the provisions of Articles 3 and 5, Chapter 4, Title 40.1, Code of Virginia, relating to labor unions and the "right to work." The contractor and its subcontractors, whether residents or nonresidents of the Commonwealth, who perform any work related to the project shall comply with all of the said provisions.
- (c) The provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia and as issued by the Department of Labor and Industry under Title 40.1 of the Code of Virginia shall apply to all work under this contract. Inspectors from the Department of Labor and Industry shall be granted access to the work for inspection without first obtaining a search warrant from the court.
- (d) Building Permit: Because this is a project of the Commonwealth of Virginia, codes or zoning ordinances of local political subdivisions do not apply. Building permits where required will be obtained and paid for by the owner. This does not include any local license fees, business fees or similar assessments that may be imposed by the appropriate political subdivision.
- (e) The contractor, if not licensed as an asbestos abatement contractor or a RFS contractor in accordance with § 54.1-514, Code of Virginia, shall have all asbestos related work performed by

subcontractors who are duly licensed as asbestos contractors or RFS contractors as appropriate for the work required.

4. PREPARATION AND SUBMISSION OF BIDS: Bids must give the full business address of the bidder and be signed by him/her with his/her usual signature. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership or any authorized representative, followed by the designation of the person signing. Bids by corporations must be signed with the legal name of the corporation followed by the name of the State in which it is incorporated and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below the signature. A bid by a person who affixes to the signature the word "President," "Secretary," "Agent" or other designation without disclosing the principal, may be held to be the bid of the individual signing. When requested by the Commonwealth, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.
5. WITHDRAWAL OR MODIFICATION OF BIDS: Bids may be withdrawn or modified by written notice received from bidders prior to the deadline fixed for bid receipt. The withdrawal or modification may be made by the person signing the bid or by an individual(s) who is authorized by him on the face of the bid. Written modifications may be made on the bid form itself, on the envelope in which the bid is enclosed, or on a separate document. Written modifications, whether the original is delivered, or transmitted by facsimile, must be signed by the person making the modification or withdrawal.
6. RECEIPT AND OPENING OF BIDS:
 - (a) It is the responsibility of the bidder to assure that his bid is delivered to the place designated for receipt of bids and prior to the time set for receipt of bids. Bids received after the time designated for receipt of bids will not be considered.
 - (b) Bids will be opened at the time and place stated in the advertisement, and their contents made public for the information of bidders and others interested who may be present either in person or by representative. The officer or agent of the owner, whose duty it is to open them, will decide when the specified time has arrived. No responsibility will be attached to any officer or agent for the premature opening of a bid not properly addressed and identified.
 - (c) The provisions of § 11-52 of the Code of Virginia, as amended, shall be applicable to the inspection of bids received.
7. ERRORS IN BIDS: Errors in bids will be handled in accordance with section 5.13 of the Vendors Manual.
8. SUBCONTRACTS:
 - (a) The contractor shall as soon as practicable after the signing of the contract, notify the owner in writing of the names of subcontractors proposed for the principal parts of the work. The contractor shall not employ any subcontractor that the owner may, within a reasonable time, object to as unsuitable. The owner will not direct the contractor to contract with any particular subcontractor unless provided in the specifications or bid form.
 - (b) The owner shall, on request, furnish to any subcontractor, if practicable, the amounts of payments made to the contractor, the Schedule of Values and Requests for Payment submitted by the contractor and any other documentation submitted by the contractor which would tend to show what amounts are due and payable by the contractor to the subcontractor.
 - (c) The contractor agrees that he is as fully responsible to the owner for the acts and omissions of his subcontractors, suppliers, and invitee upon the site of the project and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

9. SEPARATE CONTRACTS:

- (a) The owner reserves the right to let other contracts in connection with the project, the work under which may proceed simultaneously with the execution of this contract. The contractor shall afford other separate contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work. The contractor shall cooperate with them and shall take all reasonable action to coordinate his work with theirs. If the owner has listed other separate contracts in the Invitation for Bids which it expects to proceed simultaneously with the work of the contractor, and has included the estimated timing of such other contracts in the Invitation for Bids, the contractor shall integrate the schedule of those separate contracts into his scheduling. The contractor shall make every reasonable effort to assist the owner in maintaining the schedule for all separate contracts. If the work performed by the separate contractor is defective or performed so as to prevent this contractor from carrying out his work according to the drawings and specifications of this contract, this contractor shall immediately notify the owner upon discovering such conditions.
- (b) If a dispute arises between the contractor and separate contractors as to their responsibility for cleaning up as required by Sections 18(c) and 18(d) of these Additional Terms and Conditions, the owner may clean up and charge the cost thereof to the respective contractors in proportion to their responsibility. If a contractor disputes the owner's apportionment of clean-up costs, it shall be that contractor's burden to demonstrate and prove the correct apportionment.

10. TAXES: The contractor shall, without additional expense to the owner, pay all applicable federal, state, and local taxes, fees, and assessments except the taxes, fees, and assessments on the real property comprising the site of the project. If the State Building Official elects to have the local building official inspect the work as provided by § 36-98.1 of the Code of Virginia, the owner will pay the resulting fees to the local building official.

11. PATENTS: The contractor shall obtain all licenses necessary to use any invention, article, appliance, process, or technique of whatever kind and shall pay all royalties and license fees. The contractor shall hold and save the owner, its officers, agents, and employees, harmless from any loss or liability for or on account of the infringement of any patent rights in connection with any invention, process, technique, article or appliance manufactured or used in the performance of the contract, including its use by the owner, unless such invention, process, technique, article, or appliance is specifically named in the specifications or drawings as acceptable for use in carrying out the work. If, before using any invention, process, technique, article, or appliance specifically named in the specifications or drawings as acceptable for use in carrying out the work, the contractor has or acquires information that the same is covered by letters of patent making it necessary to secure the permission of the patentee, or other, for the use of the same, he shall promptly advise the owner. The owner may direct that some other invention, process, technique, article, or appliance be used. Should the contractor have reason to believe that the invention, process, technique, article, or appliance so specified is an infringement of a patent, and fail to inform the owner, he shall be responsible for any loss due to the infringement.

12. INSPECTION:

- a. All material and workmanship shall be subject to inspection, examination, and test by the owner and its project inspector at any and all times during construction. The project inspector shall have authority to reject defective material and workmanship and require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefor, and the contractor shall promptly segregate and remove the rejected material from the premises. If the contractor fails to proceed at once with replacement of rejected material and/or the correction of defective workmanship, the owner may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost to the contractor, or may terminate the right of the contractor to proceed, the contractor and surety being liable for any damages.
- b. Job-site inspections, tests conducted on site or tests of materials gathered on site, which the contract requires to be performed by independent testing entities, shall be contracted and paid for by the owner. Examples of such tests are the testing of cast in-place concrete, foundation materials, soil compaction, pile installations, caisson bearings, and steel framing connections. Although conducted by independent testing entities, the owner will not contract and pay for tests or certifications of materials, manufactured products, or assemblies which the contract, codes, standards, etc. require to be tested and/or certified for compliance with industry standards such as Underwriters Laboratories, Factory Mutual, or ASTM. If there are any fees to be paid for such tests and certifications, they will be paid by the contractor. The contractor shall also pay for all inspections, tests, and certifications which the contract specifically requires him to perform or pay, together with any inspections and tests which he chooses to perform for his own quality control purposes. The contractor shall promptly furnish, without additional charge, all reasonable facilities, labor, and materials necessary and convenient for making such tests. Except as provided in (c) below, whenever such examination and testing finds defective materials, equipment, or workmanship, the contractor shall reimburse the owner for the cost of reexamination and retesting.
- c. Should it be considered necessary or advisable by the owner at any time before final acceptance of the entire work to make an examination of any part of the work already completed, by removing or tearing out portions of the work, the contractor shall on request promptly furnish all necessary facilities, labor and material to expose the work to be tested to the extent required. If such work is found to be defective in any respect, due to the fault of the contractor or his subcontractors, he shall defray all the expenses of uncovering the work, of examination and testing, and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the actual cost of the contractor's labor and material necessarily involved in uncovering the work, the cost of examination and testing and contractor's cost of material and labor necessary for replacement shall be paid to the contractor and he shall, in addition, if completion of the work has been delayed thereby, be granted a suitable extension of time.
- d. The project inspector will recommend to the owner that the work be suspended when in his judgment the drawings and specifications are not being followed. Any such suspension shall be continued only until the matter in question is resolved to the satisfaction of the owner. The cost of any such work stoppage shall be borne by the contractor unless it is later determined that no fault existed in the contractor's work.
- e. The project inspector has no authority to and shall not:
 - (1) Authorize deviations from the contract documents;
 - (2) Enter into the area of responsibility of the contractor's superintendent;
 - (3) Issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures, or in regard to safety precautions and programs in connection with the work;
 - (4) Authorize or suggest that the owner occupy the project, in whole or in part;
 - (5) Issue a certificate for payment.

13. SUPERINTENDENCE BY CONTRACTOR:

- a. The contractor shall have a competent foreman or superintendent, satisfactory to the owner, on the job site at all times during the progress of the work. The contractor shall be responsible for all construction means, methods, techniques, sequences, and procedures, for coordinating all portions of the work under the contract except where otherwise specified in the contract documents, and for all safety and worker health programs and practices. The contractor shall notify the owner, in writing, of any proposed change in superintendent including the reason therefor prior to making such change.
- b. The contractor shall, at all times, enforce strict discipline and good order among the workers on the project, and shall not employ on the work any unfit person, anyone not skilled in the work assigned to him, or anyone who will not work in harmony with those employed by the contractor, the subcontractors, the owner or the owner's separate contractors and their subcontractors.
- c. The owner may, in writing, require the contractor to remove from the work any employee the owner deems to be incompetent, careless, not working in harmony with others on the site, or otherwise objectionable.

14. ACCESS TO WORK: The owner, the owner's inspectors and other testing personnel, and inspectors from the Department of Labor and Industry shall have access to the work at all times. The contractor shall provide proper facilities for access and inspection.

15. AVAILABILITY OF MATERIALS: If material specified in the contract documents is not available on the present market, alternate materials may be proposed by the contractor for approval of the owner.

16. CONTRACTOR'S TITLE TO MATERIALS: No materials or supplies for the work shall be purchased by the contractor or by any subcontractor subject to any security interest, installment or sales contract or any other agreement or lien by which an interest is retained by the seller or is given to a secured party. The contractor warrants that he has clear title to all materials and supplies which he uses in the work or for which he accepts payment in whole or in part.

17. WARRANTY OF MATERIALS AND WORKMANSHIP:

- a. The contractor warrants that, unless otherwise specified, all materials and equipment incorporated in the work under the contract shall be new, in first class condition, and in accordance with the contract documents. The contractor further warrants that all workmanship shall be of the highest quality and in accordance with contract documents and shall be performed by persons qualified at their respective trades.
- b. Work not conforming to these warranties shall be considered defective.
- c. This warranty of materials and workmanship is separate and independent from and in addition to any of the contractor's other guarantees or obligations in this contract.

18. USE OF PREMISES AND REMOVAL OF DEBRIS:

- a. The contractor shall:
 - (1) Perform his contract in such a manner as not to interrupt or interfere with the operation of any existing activity on the premises or with the work of any contractor;
 - (2) Store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work of any other contractor; and
 - (3) Place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work.
- b. The contractor expressly undertakes, either directly or through his subcontractor(s), to effect all cutting, filling, or patching of his work required to make the same conform to the drawings and

specifications, and, except with the consent of the owner, not to cut or otherwise alter the work of any other contractor. The contractor shall not damage or endanger any portion of the work or premises, including existing improvements, unless called for by the contract.

- c. The contractor expressly undertakes, either directly or through his subcontractor(s), to clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the work shall present a neat, orderly, and workmanlike appearance. No such refuse, rubbish, scrap material, and debris shall be left within the completed work nor buried on the building site, but shall be removed from the site and properly disposed of in a licensed landfill or otherwise as required by law.
- d. The contractor expressly undertakes, either directly or through his subcontractor(s), before final payment, to remove all surplus material, false work, temporary structures, including foundations thereof, plants of any description and debris of every nature resulting from his operations and to put the site in a neat, orderly condition; to thoroughly clean and leave reasonably dust free all finished surfaces including all equipment, piping, etc., on the interior of all buildings included in the contract; and to thoroughly clean all glass installed under the contract including the removal of all paint and mortar splatters and other defacements. If a contractor fails to clean up at the completion of the work, the owner may do so and charge for costs thereof to the contractor.
- e. During and at completion of the work, the contractor shall prevent site soil erosion, the runoff of silt and/or debris carrying water from the site, and the blowing of debris off the site in accordance with the applicable requirements and standards of the Virginia Erosion and Sediment Control Handbook, latest edition, and of the contract documents.
- f. The contractor shall not operate or disturb the setting of any valves, switches or electrical equipment on the service lines to the building except by proper previous arrangement with the owner. The contractor shall give ample advance notice of the need for cut-offs which will be scheduled at the convenience of the owner.

19. PROTECTION OF PERSONS AND PROPERTY:

- a. The contractor expressly undertakes, both directly and through its subcontractor(s), to take every precaution at all times for the protection of persons and property which may come on the building site or be affected by the contractor's operation in connection with the work.
- b. The contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.
- c. The provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia, issued by the Department of Labor and Industry under Title 40.1 of the Code of Virginia shall apply to all work under this contract.
- d. The contractor shall continuously maintain adequate protection of all his work from damage and shall protect the owner's property from injury or loss arising in connection with this contract. He shall make good any such damage, injury, or loss, except such as may be directly due to errors in the contract documents or caused by agents or employees of the owner. He shall adequately protect adjacent property to prevent any damage to it or loss of use and enjoyment by its owners. He shall provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority, local conditions, any of the contract documents or erected for the fulfillment of his obligations for the protection of persons and property.
- e. In an emergency affecting the safety or life of persons or of the work, or of the adjoining property, the contractor, without special instruction or authorization from the owner, shall act, at his discretion, to prevent such threatened loss or injury. Also, should he, to prevent threatened loss or injury, be instructed or authorized to act by the owner, he shall so act immediately, without appeal. Any additional compensation or extension of time claimed by the contractor on account of any emergency work shall be determined as provided by paragraph O, of the General Terms and Conditions.

20. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT: If the work should be stopped under any order of any court or other public authority for a period of ninety (90) days through no fault of the contractor or of anyone employed by him, or if the owner should fail to pay to the contractor within thirty (30) days when no dispute exists as to the sum, then the contractor may, upon ten (10) calendar days written notice to the owner, stop work or terminate the contract and recover from the owner payment for the cost of the work actually performed, together with overhead and profit thereon, but profit shall be recovered only to the extent that the contractor can demonstrate that he would have had profit on the entire contract if he had completed the work. The contractor may not receive profit or any other type of compensation for parts of the work not performed. The contractor may recover the cost of physically closing down the job site, but no other costs of termination. The owner may offset any claims it may have against the contractor against the amounts due to the contractor. In no event shall termination of the contract by the contractor terminate the obligations of the contractor's surety on its payment and performance bonds.
21. OWNER'S RIGHT TO TERMINATE THE CONTRACT FOR CAUSE:
- a. If the contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, the owner may terminate the contract. If the contractor should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to subcontractors or suppliers of material or labor, or persistently disregards laws, ordinances, or the written instructions of the owner, or otherwise be guilty of a substantial violation of any provision of the contract, then the owner may terminate the contract.
 - b. Prior to termination of the contract, the owner shall give the contractor and his surety ten (10) calendar days written notice, during which the contractor and/or his surety may rectify the cause of the termination. If rectified to the satisfaction of the owner within said ten (10) days, the owner may rescind its notice of termination. If it does not, the termination for cause shall become effective at the end of the ten-day (10) notice period. In the alternative, the owner may postpone the effective date of the termination notice, at its sole discretion, if it should receive reassurances from the contractor and/or its surety that the causes of termination will be remedied in a time and manner which the owner finds acceptable. If at any time more than ten (10) days after the notice of termination, the owner determines that contractor and/or its surety has not or is not likely to rectify the causes of termination in an acceptable manner or within the time allowed, then the owner may immediately terminate the contract for cause by giving written notice to the contractor and its surety. In no event shall termination for cause terminate the obligations of the contractor's surety on its payment and performance bonds.
 - c. Notice of terminations, whether initial or given after a period of postponement, may be served upon the contractor and the surety by mail or any other means at their last known places of business in Virginia or elsewhere, by delivery to any officer or management/supervisory employee of either wherever they may be found, or, if no such officer, employee or place of business is known or can be found by reasonable inquiry within three (3) days, by posting the notice at the job site. Failure to accept or pick up registered or certified mail addressed to the last known address shall be deemed to be delivery.
 - d. Upon termination of the contract, the owner shall take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method he may deem expedient. In such case the contractor shall not be entitled to receive any further payment. If the expense of finishing the work, including compensation for additional managerial and administrative services shall exceed the unpaid balance of the contract price, the contractor shall pay the difference to the owner, together with any other expenses of terminating the contract and having it completed by others.
 - e. If it should be judicially determined that the owner improperly terminated this contract for cause, then the termination shall be deemed to be a termination for the convenience of the owner.
 - f. Termination of the contract under this section is without prejudice to any other right or remedy of the owner.

22. TERMINATION BY OWNER FOR CONVENIENCE:

- a. Owner may terminate this contract at any time without cause, in whole or in part, upon giving the contractor notice of such termination. Upon such termination, the contractor shall immediately cease work and remove from the project site all of its labor forces and such of its materials as owner elects not to purchase or to assume in the manner hereinafter provided. Upon such termination, the contractor shall take such steps as owner may require to assign to the owner the contractor's interest in all subcontracts and purchase orders designated by owner. After all such steps have been taken to owner's satisfaction; the contractor shall receive as full compensation for termination and assignment the following:
- (1) All amounts then otherwise due under the terms of this contract,
 - (2) Amounts due for work performed subsequent to the latest Request for Payment through the date of termination,
 - (3) Reasonable compensation for the actual cost of demobilization incurred by the contractor as a direct result of such termination. The contractor shall not be entitled to any compensation for lost profits or for any other type of contractual compensation or damage other than those provided by the preceding sentence. Upon payment of the forgoing, owner shall have no further obligations to the contractor of any nature.
- b. In no event shall termination for the convenience of the owner terminate the obligations of the contractor's surety on its payment and performance bonds.

23. GUARANTEE OF WORK:

- a. Except as otherwise specified, all work shall be guaranteed by the contractor against defects resulting from the use of inferior materials, equipment, or workmanship for one (1) year from the date of final acceptance of the entire project by the owner in writing. Equipment and facilities, which have seasonal limitations on their operation, shall be guaranteed for one (1) full year from the date of seasonally appropriate tests and acceptance, in writing, by the owner.
- b. If, within the guarantee period, defects are noticed by the owner which require repairs or changes in connection with the guaranteed work, those repairs or changes being in the opinion of the owner rendered necessary as the result of the use of materials, equipment or workmanship, which are defective, or inferior or not in accordance with the terms of the contract, then the contractor shall, promptly upon receipt of notice from the owner, such notice being given not more than two weeks after the guarantee period expires, and without expense to the owner:
- (1) Place in satisfactory condition in every particular all of such guaranteed work and correct all defects therein;
 - (2) Make good all damage to the structure, site, equipment, or contents thereof, which is the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the contracts; and
 - (3) Make good any work, materials, equipment, contents of structures, and/or disturbance of the site in fulfilling any such guarantee.
- c. In any case, where in fulfilling the requirements of the contract or any guarantee embraced in or required thereby, the contractor disturbs any work guaranteed under contract, he shall restore such work to a condition satisfactory to the owner and guarantee such restored work to the same extent as it was guaranteed under such other contract.
- d. If the contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the owner may have the defects corrected and the contractor and his surety shall be liable for all expense incurred.
- e. All special guarantees applicable to definite parts of the work that may be stipulated in the specifications or other papers forming a part of the contract shall be subject to the term of this section during the first year of the life of such special guarantee.

- f. Nothing contained in this section shall be construed to establish a period of limitation with respect to any other obligation which the contractor might have under the contract documents, including liability for defective work under Section 17 of these additional terms and conditions. This paragraph relates only to the specific obligation of the contractor contained in this section to correct the work and does not limit the time within which his obligation to comply with the contract documents may be sought to be enforced, nor of the time within which proceedings may be commenced to establish the contractor's liability with respect to his other obligations under this contract.
- g. In the event the work of the contractor is to be modified by another contractor, either before or after the final inspection, the first contractor shall remain responsible in all respects under the guarantee of work and under any other warranties provided in the contract or by law. However, the contractor shall not be responsible for any defects in material or workmanship introduced by the contractor modifying its work. Both the first contractor and the contractor making the modifications shall each be responsible solely for the work done by each. The contractor modifying the earlier work shall be responsible for any damage to or defect introduced into the work which it is modifying. If any contractor shall claim that another contractor has introduced defects of materials and/or workmanship into the work of the first, it shall be the burden of the contractor making the claim to clearly demonstrate the nature and extent of such introduced defects and the responsibility of the other contractor. Any contractor modifying the work of another shall have the same burden if he asserts defects to have been caused by the contractor whose work he is modifying.

24. ASBESTOS:

- a. This subsection applies to projects involving existing buildings where asbestos abatement is not a part of the work. If the contractor discovers or inadvertently disturbs any material that may contain asbestos that has not been previously identified, that was overlooked during the removal, or which was deemed not to be friable or which was encapsulated, the contractor shall stop work in the area containing the asbestos, secure the area, and notify the owner immediately by telephone or in person with written notice as soon as possible. The owner will have the suspect material sampled.

If the sample is positive and must be disturbed in the course of the work, the owner will have the material repaired or removed and will pay for the bulk sample analysis.

If the material disturbed is not within the contractor's authorized work and/or work area or under this contract, the contractor will pay for all associated sampling and abatement costs.

- b. If asbestos abatement is included as a part of the work, the contractor shall assure that the asbestos abatement work is accomplished by those duly licensed in accordance with the specific requirements of the contract documents.
- c. If asbestos abatement is included as part of the work, the licensed asbestos subcontractor shall, in the insurance required, name the Commonwealth of Virginia and the contractor as additional insured.

25. TRAINING, OPERATION, AND MAINTENANCE OF EQUIPMENT:

- a. The contractor, in conjunction with his subcontractors and suppliers, shall provide the owner's operations and maintenance personnel with instruction and training in the proper operation and maintenance of the equipment and related controls provided or altered in the work.
- b. The contractor shall provide the owner with a minimum of two (2) copies of operating, maintenance and parts manuals for all equipment provided in the project. Further specific requirements may be indicated in the specifications.

VII. METHOD OF PAYMENT:

- A. Upon final completion, the contractor shall render one invoice for goods and services provided. The invoice should be submitted to the Comptroller's Office, Virginia Military Institute.
- B. The agency will remit payment within thirty (30) days of receipt of the invoice for all work satisfactorily completed.

VIII. PRICING SCHEDULE:

The Bidder agrees to provide goods and services in compliance with the scope of work and terms and conditions of this Invitation for Bid at the contract price quoted below:

_____ Dollars (\$_____)

Attachment 1
IFB V211-02-052

Furnish and install new packaged water chiller and air-cooled condenser in mechanical room in Lejuene Hall.

PART 1 GENERAL

1.01 SUBMITTALS

- A. Submit unit performance data including: capacity, nominal and operating performance.
- B. Submit Mechanical Specifications for unit and accessories describing construction, components and options.
- C. Submit shop drawings indicating overall dimensions as well as installation, operation and service clearances. Indicate lift points and recommendations and center of gravity. Indicate unit shipping, installation and operating weights including dimensions.
- D. Submit data on electrical requirements and connection points. Include recommended wire and fuse sizes or MCA, sequence of operation, safety and start-up instructions.

1.02 REGULATORY REQUIREMENTS

- A. Conform to ARI 550/590-98 Standard for testing and certified rating of Water Chilling Packages using the Vapor Compression Cycle.
- B. Conform to ANSI/UL 1995 code for construction of water chillers and provide UL label. In the event the unit is not UL approved, the manufacturer shall, at his expense, provide for a field inspection by an UL representative to verify conformance to UL standards. If necessary, contractor shall perform modifications to the unit to comply with UL, as directed by the UL representative. ETL listing is not acceptable.
- C. Conform to ANSI/ASME SEC 8 Boiler and Pressure Vessel Code for construction and testing of water chillers.
- D. Conform to ANSI/ASHRAE 15-1992 code for the safe design, construction, installation, and operation of refrigerating systems.

1.03 STORAGE AND HANDLING

- A. Comply with manufacturer's installation instructions for rigging, unloading, and transporting units.
- B. Protect units from physical damage. Leave factory shipping covers in place until installation.

1.04 WARRANTY

- A. Provide a full parts warranty for one year from start-up or 18 months from shipment, whichever occurs first.
- B. Provide five-year warranty for replacement compressors including material only.
- C. Start-up of chiller and related equipment shall be by factory authorized service organization.

1.05 MAINTENANCE SERVICE

- A. Furnish service and maintenance of complete assembly for one year from Date of Substantial Completion.

PART 2 PRODUCTS

2.01 SUMMARY

- A. The contractor shall furnish and install a minimum 125 ton air-cooled water chillers. The chillers shall be installed in accordance with this specification and perform at the specified conditions as scheduled.
- B. Air-cooled water chiller shall be manufactured by Carrier, Trane, York, or equivalent.
- C. Contractor shall remove existing compressor and place outside of the building at a location designated by owner. All other materials removed shall be disposed of by the contractor at the contractor's expense.

2.02 GENERAL UNIT DESCRIPTION

- A. Provide factory assembled air-cooled liquid chillers consisting of helical rotary compressors, evaporator, electronic expansion valves, refrigeration accessories, starter, and control panel. Construction and ratings shall be in accordance with ARI Standard 550/590-98.

2.03 COMPRESSORS

- A. Construct semihermetic helical rotary screw compressors with rotors of high grade steel or cast iron alloy. Screw compressor shall be of horizontal design and shall have both a male and a female rotor. Reciprocating or scroll compressors shall not be acceptable.
- B. Statically and dynamically balanced rotating parts.
- C. Provide oil lubrication system with oil charging valve and oil filter to ensure adequate lubrication during starting, stopping, and normal operation.
- D. Provide compressor with automatic capacity reduction equipment consisting of capacity control slide valve. Compressor must start unloaded for soft start on motors.
- E. Provide constant speed 1800 or 3600 rpm compressor motors, suction gas cooled with solid state sensor and electronic winding overheating protection, designed for across-the-line or Wye-delta starting. Furnish with starter. Compressor motor power factor shall be .87 or greater. If the compressor motor power factor is less than .87, power factor correction capacitors must be installed.

2.04 EVAPORATOR

- A. Provide shell and tube type evaporator, seamless or welded steel construction with cast iron or fabricated steel heads, seamless internally finned copper tubes, roller expanded into tube sheets.
- B. Design, test, and stamp evaporator refrigerant side for 300 psig working pressure in accordance with ANSI/ASME SEC 8, and evaporator water side for 215 psig working pressure.
- C. Insulate with 0.75 inch minimum thick flexible elastomeric rubber closed cell insulation with maximum K value of [0.26]. Insulated areas to include evaporator, refrigerant heads, and suction lines.
- D. Provide water drain connection, vent and fittings for factory installed leaving water temperature control and low temperature cutout sensors.
- E. Water connections shall be grooved pipe (victaulic). Evaporator shall have only one entering and one leaving connection. If manufacturer provides separate evaporators, contractor shall provide manifold and pressure gauges to ensure equal flow is provided to each evaporator.

2.05 AIR-COOLED CONDENSER AND FANS

A. CASING

1. Unit shall be constructed of a complete structural frame with removable panels. Removal of side panels shall not affect the structural integrity of the unit. Contractor shall be responsible to provide connection flanges and all other framework that is needed on unit to ensure that removal of unit's panels shall not affect structural integrity.
2. Construct casing sections located upstream of supply fan for operation at 4 inches water gauge negative static pressure and casing sections located downstream of supply fan for operation at 6 inches water gauge positive static pressure.
3. All exterior panels and structural frames shall be constructed of G90-U galvanized steel. Casings not constructed of G90-U galvanized steel, casings with welds on exterior surfaces, or casings with welds on interior surfaces that have burned through to exterior surfaces shall be chemically cleaned, coated with rust-inhibiting primer and finished with rust-inhibiting enamel in order to prevent premature corrosion and microbial growth.
4. All joints between exterior panels and structural frames shall have seals and gaskets with closed-cell foam gasketing for air seal and acoustical break.
5. Insulate all sections handling conditioned air with 1" thick 1-1/2 lb. per cubic ft. density matte-faced fiberglass or equivalent. Install insulation with adhesive. If edges of fiberglass insulation are exposed, the contractor shall be responsible for sealing exposed edges with mastic sealer to prevent erosion into the airstream. Insulation, adhesive, and mastic sealer (if required) shall conform to NFPA 90A.

B. FANS

1. Provide supply fan section with BI double-width, double-inlet centrifugal fan designed and suitable for class of service indicated in the unit schedule. Fan shaft to be properly sized and protectively coated with lubricating oil. Fan shafts shall be solid and properly designed so that fan shaft does not pass through first critical speed as unit comes up to rated RPM. Fans shall be statically and dynamically tested as an assembly at the required RPM to meet design specifications. Key fan wheels to fan shaft to prevent slipping.
 - a. Provide self-aligning, grease lubricated pillow-block ball bearings selected for L-50 200,000 hour average life per ANSI/AFBMA 9. Extend both grease lubrication fittings to drive side of unit with plastic tubes and zerk fittings rigidly attached to drive side bearing support.
2. Mount fans on isolation bases. Internally mount motors on same isolation bases and internally isolate fans and motors with 2 inch spring isolators. Install flexible canvas ducts between fan and casings to ensure complete isolation. Flexible canvas ducts shall comply with NFPA 90A. If no isolators or flexible canvas duct is provided, then the entire unit shall be externally isolated from the supply ductwork and piping by contractor in order to avoid transmission of noise and vibration through the ductwork.
3. Fan sections shall have full height, double-wall, hinged, removable access doors on drive for inspection and maintenance of internal components.
4. Belts shall be enclosed as required by OSHA standard 29 CFR 1910 to protect worker from accidental contact with the belts and sheaves.
5. Fan and motor assembly shall be weighed at AHU manufacturer's factory for isolator selection. Fan section assemblies shall be statically and dynamically balanced. Fan section assemblies include fan wheels, shafts, bearings, drives, belts, isolation bases and isolators. Isolators must be allowed to free float when performing fan balance. Vibration shall be measured at each fan shaft bearing in horizontal, vertical and axial directions. Design RPM's to be balanced as scheduled on drawings.
6. Fan sections controlled by variable frequency drives, shall be balanced at all speeds from 25% and 100% of design RPM.

C. MOTORS AND DRIVES

1. Factory install all motors on slide base to permit adjustment of belt tension.
2. Fan Motors shall be heavy duty, open drip-proof, operable at 208 Volts, 60 Hz, 3-phase. Provide condenser section with ABB or equal Variable Frequency Drive suitable for size and voltage of specified fan. VFD shall be equipped with disconnect switch or circuit breaker.
3. V-Belt Drive shall be constant pitch rated at 1.5 times the motor nameplate.
4. Manufacturer shall provide for each fan a nameplate with the listed information to assist air balance contractor in start up:
 - a. Fan and motor Sheave part number
 - b. Fan and motor bushing part number
 - c. # of belts and part numbers
 - d. Design RPM and Motor HP
 - e. Belt tension and deflection
 - f. Center distance between shafts

D. COILS

1. Coils shall be manufactured by the same company as the supplier of the air handling unit. Install coils such that headers and return bends are enclosed by unit casings.
2. Construct coils of configuration plate fins and seamless tubes. Fins shall have collars drawn, belled and firmly bonded to tubes by means of mechanical expansion of tubes. Do not use soldering or tinning in bonding process.
3. Construct coil casings of galvanized steel with formed end supports and top and bottom channels. If two or more coils are stacked in unit, install intermediate drain channels between coils to drain condensate to main drain pans without flooding lower coils or passing condensate through airstream.
 - a. Construct tubes of 5/8 inch O.D. minimum 0.024 inch thick copper and construct fins of aluminum.
 - b. Refrigerant Cooling Coils
 1. Clearly label discharge and liquid connections on outside of units.
 2. Proof test coils to 450 psig air under water and leak test coils to 300 psig air pressure under water. Dry insides of coils after testing and seal all connections.
 3. Construct suction headers of copper tubing. Suction connections shall penetrate unit casings to allow for sweat connections to refrigerant lines.
 4. Coils shall have equalizing type vertical distributors sized in conjunction with capacities of coils.

E. FILTERS

1. Provide factory-fabricated filter section of the same construction and finish as unit casings. Filter sections shall have filter guides and full height, double-wall, hinged, removable access doors for filter removal. Provide filter blockoffs as required to prevent air bypass around filters.
2. Provide 2 inch angled filters. Filters shall be removable from both sides of filter sections.

F. Unit configuration

1. Unit shall consist of sections: Filter section, Supply Fan section, Diffuser section, Condenser coil section.

2.06 REFRIGERANT CIRCUIT

A. All units shall have 2 independent refrigeration circuits, each with a separate single compressor for standby operation. Manifolder compressors shall not be acceptable.

B. Provide for each refrigerant circuit

1. Liquid line shutoff valve.
2. Liquid line sight glass and moisture indicator.
3. Electronic expansion valve sized for maximum operating pressure.
4. Charging valve.
5. Discharge and oil line check valves.
6. Compressor suction and discharge service valves.
7. High and low side pressure relief valve.
8. Nitrogen holding charge and oil.
9. Unit factory leak and proof tested to support 450 psi high side and 300 psi low side rated pressures.
10. Filter dryer (replaceable core type).

C. Capacity Modulation: Provide capacity modulation by either slide valve or unloader valves. Unit shall be capable of operation down to 15%.

2.07 CONTROLS

A. On chiller, mount control panel containing starters, power and control wiring, factory wired with terminal block power connection. Provide primary and secondary fused control power transformer.

B. For each compressor, provide across-the-line starter on 208V applications or Wye-delta starter on 200-230V applications.

C. Provide the following safety controls with indicating lights or diagnostic readouts.

1. Low chilled water temperature protection.
2. High refrigerant pressure.
3. Low oil flow protection.
4. Loss of chilled water flow.
5. Contact for remote emergency shut-down.
6. Contact for remote alarm.
7. Motor current overload.
8. Phase reversal/unbalance/single phasing.
9. Over/under voltage.

10. Failure of water temperature sensor used by controller.

11. Compressor status (on or off).

D. Provide the following operating controls:

1. Eight (8) or more step leaving chilled water temperature controller which cycles compressors and activates slide valve based on PI algorithms.
2. Five minute start-to-start solid state anti- recycle timer to prevent compressor from short cycling. If a greater than 5 minute solid state anti recycle timer is provided, hot gas bypass shall be provided to insure accurate temperature control in light load applications.
3. Load limit microprocessor logic to limit compressor loading on high return water temperature to prevent nuisance tripouts.
4. High head pressure unloading algorithms in the microprocessor that unload the compressors to keep head pressure under control and help prevent high pressure nuisance tripouts.
5. Compressor current sensing unloader unit that unloads compressors to help prevent current overload nuisance tripouts.
6. Auto lead-lag functions that constantly evens out running hours and compressor starts automatically. If contractor can not provide this function then cycle counter and hour meter shall be provided for each compressor so owner can be instructed by the contractor on how to manually change lead-lag on compressors and even out compressor starts and running hours.

E. Provide pre-piped gauge board with pressure gauges for suction and discharge refrigerant pressures or digital display of pressures on microprocessor.

F. The chiller control panel shall utilize an Adaptive control Microprocessor which will automatically take action to prevent unit shutdown due to abnormal operating conditions associated with: evaporator refrigerant temperature, high condensing pressure and motor current overload.

G. In all of the above cases, the chiller will continue to run, in an unloaded state, and will continue to produce some chilled water in an attempt to meet the cooling load. However, if the chiller reaches the trip-out limits, the chiller controls will take the chiller off-line for protection, and a manual reset is required. Once the "near-trip" condition is corrected, the chiller will return to normal operation and can then produce full load cooling.

H. Provide ammeters for each compressor or digital display of % RLA on microprocessor.

2.08 BUILDING MANAGEMENT SYSTEM

A. Provide an external Programmable Control Module (PCM) which shall monitor refrigerant head pressure on both refrigerant circuits. The PCM shall send an Analog Output to the fan VFD to modulate fan speed based on head pressure.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Align chiller package on steel or concrete foundations.
- C. Install units on neoprene vibration isolators.
- D. Connect to electrical service.
- E. Connect to chilled water piping

- F. Arrange piping for easy dismantling to permit condenser tube cleaning.
- G. Install refrigerant piping per manufacturer's requirements and recommendations. Install refrigerant specialties as recommended by manufacturer.
- H. Leak check, evacuate and charge refrigerant piping per manufacturer's recommendation.

3.02 MANUFACTURER'S FIELD SERVICES

- A. Supply service of factory trained representative for a period of 5 days to supervise testing, start-up, and instruction on operation and maintenance to Owner.
- B. Supply initial charge of refrigerant 22 and oil.

ATTACHMENT 2

IFB V211-02-052

CONTRACTOR DATA SHEET (To Be Completed By Bidder)

1. QUALIFICATIONS OF BIDDER

The bidder must have the capability and capacity in all respects to fully satisfy the contractual requirements.

2. YEARS IN BUSINESS

Indicate the length of time you have been in business providing this type of service.

_____ Years _____ Months

3. REFERENCES

Provide a list of at least four (4) customers for whom you have done similar work in the past two (2) years.

A. Company: _____ Contact: _____
 Phone: (____) _____ Fax: (____) _____

B. Company: _____ Contact: _____
 Phone: (____) _____ Fax: (____) _____

C. Company: _____ Contact: _____
 Phone: (____) _____ Fax: (____) _____

D. Company: _____ Contact: _____
 Phone: (____) _____ Fax: (____) _____