



Request for Proposal

RFP# CMJ-1055

**ATLANTIC UNION BANK CENTER
– LED DISPLAYS PACKAGE**

September 13, 2019



REQUEST FOR PROPOSAL
RFP# CMJ-1055

Issue Date: September 13, 2019
Title: ATLANTIC UNION BANK CENTER - LED DISPLAYS PACKAGE
Issuing Agency: Commonwealth of Virginia
James Madison University
Procurement Services MSC 5720
752 Ott Street, Wine Price Building
First Floor, Suite 1023
Harrisonburg, VA 22807

Period of Contract: From Date of Award Through One Year (Renewable)

Sealed Proposals Will Be Received Until 2:00 PM on October 17, 2019 for Furnishing The Services Described Herein.

SEALED PROPOSALS MAY BE MAILED, EXPRESS MAILED, OR HAND DELIVERED DIRECTLY TO THE ISSUING AGENCY SHOWN ABOVE.

All Inquiries For Information And Clarification Should Be Directed To: Colleen Johnson, Buyer Specialist, Procurement Services, johns9cm@jmu.edu; 540-568-3137; (Fax) 540-568-7935 not later than **October 7, 2019**.

NOTE: THE SIGNED PROPOSAL AND ALL ATTACHMENTS SHALL BE RETURNED.

In compliance with this Request for Proposal and to all the conditions imposed herein, the undersigned offers and agrees to furnish the goods/services in accordance with the attached signed proposal or as mutually agreed upon by subsequent negotiation.

Name and Address of Firm:

By: _____
(Signature in Ink)

Name: _____
(Please Print)

Date: _____

Title: _____

Web Address: _____

Phone: _____

Email: _____

Fax #: _____

ACKNOWLEDGE RECEIPT OF ADDENDUM: #1____ #2____ #3____ #4____ #5____ (please initial)

CONTRACTOR/SUBCONTRACTOR LICENSE REQUIREMENT: By my signature on this solicitation, I certify that this firm/individual and subcontractor is properly licensed for providing the goods/services specified. License # _____ Type _____

SMALL, WOMAN OR MINORITY OWNED BUSINESS:

☐ YES; ☐ NO; *IF YES* ⇒ ⇒ ☐ SMALL; ☐ WOMAN; ☐ MINORITY ***IF MINORITY:*** ☐ AA; ☐ HA; ☐ AsA; ☐ NW; ☐ Micro

Note: This public body does not discriminate against faith-based organizations in accordance with the *Code of Virginia*, § 2.2-4343.1 or against an offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment.

REQUEST FOR PROPOSAL

RFP # CMJ-1055

TABLE OF CONTENTS

I.	PURPOSE	Page	3
II.	BACKGROUND	Page	3
III.	SMALL, WOMAN-OWNED, AND MINORITY PARTICIPATION	Page	3
IV.	STATEMENT OF NEEDS	Page	3
V.	PROPOSAL PREPARATION AND SUBMISSION	Page	4
VI.	EVALUATION AND AWARD CRITERIA	Page	7
VII.	GENERAL TERMS AND CONDITIONS	Page	8
VIII.	SPECIAL TERMS AND CONDITIONS	Page	14
IX.	METHOD OF PAYMENT	Page	24
X.	PRICING SCHEDULE	Page	25
XII.	ATTACHMENTS	Page	25
	A. Offeror Data Sheet		
	B. SWaM Utilization Plan		
	C. Sample of Standard Contract		
	D. Scope of Work and Technical Specifications		
	E. JMU Atlantic Union Bank Center AJP RFP Drawings – attached as a separate PDF file		
	F. Displays and Scoring System Pricing Form - attached as a separate Excel spreadsheet (<i>All Offerors are required to complete</i>)		

I. PURPOSE

The purpose of this Request for Proposal (RFP) is to solicit sealed proposals from qualified sources to enter into a contract to provide a LED Displays Package for the Atlantic Bank Union Center for James Madison University (JMU), an agency of the Commonwealth of Virginia. Initial contract shall be for two (2) years with an option to renew for eight (8) additional one-year periods.

II. BACKGROUND

James Madison University (JMU) is a comprehensive public institution in Harrisonburg, Virginia with an enrollment of approximately 22,000 students and 4,000 faculty and staff. Further information about the University may be found at the following website: <http://www.jmu.edu>. The University sponsors an 18-sport intercollegiate athletics program that competes at The Division I level of the National Collegiate Athletic Association. JMU is also affiliated with the Colonial Athletic Association, of which it was a charter member in 1985, and with the Eastern College Athletic Conference.

James Madison University has invested heavily in its athletics facilities, highlighted by Bridgeforth Stadium/Zane Showker Field. In 2020, the Atlantic Union Bank Center will complete construction as the 8,500-seat home of JMU men's and women's basketball while also serving as a destination for numerous campus and community events with capacity potential for 10,000 for certain special event configurations. More details on the Atlantic Union Bank Center can be found at <https://jmusports.com/feature/AtlanticUnionBankCenter>.

III. SMALL, WOMAN-OWNED AND MINORITY PARTICIPATION

It is the policy of the Commonwealth of Virginia to contribute to the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities, and to encourage their participation in State procurement activities. The Commonwealth encourages contractors to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and other contractual opportunities. Attachment B contains information on reporting spend data with subcontractors.

IV. STATEMENT OF NEEDS

With the upcoming debut of the Atlantic Union Bank Center, JMU seeks proposals for an LED Displays Package. Project highlights can be found at: <https://jmusports.com/feature/AtlanticUnionBankCenter>.

A. GENERAL INFORMATION:

1. This represents the minimum requirements to furnish a complete turnkey package as indicated in this and accompanying documents. The Contractor shall provide the work described in the RFP Documents on a 'turnkey basis.' Unless otherwise indicated, the work contemplated in this RFP includes manufacture, supply, delivery, installation, labor, tools, engineering, supervision, licenses, insurance, permits, related services (including design) and testing of all equipment, and materials necessary to install and operate the video display, scoring system and controls as described in the RFP Documents, and more particularly in the technical specifications included in the RFP attachments.

2. Offerors responding to this RFP must provide pricing for a complete turnkey installation, including costing for the provision and installation of all items necessary to provide finished and fully operational systems. Materials, equipment and related services required for the provision and installation of such a system that are not expressly addressed in this RFP are understood to be the responsibility of the Offeror.
3. Offerors are clearly advised that any drawings, plans, charts or other materials, whether supplied by or on behalf of James Madison University, AJP, or third parties, describing aspects of the site provided as part of this document or otherwise are not to be considered as definitive or as a substitute for any information which would otherwise be obtained by the Offeror during negotiation.
4. Offerors must submit proposals for the complete package including all required equipment, installation and functional connection of all equipment as described in this document and related attachments. A proposal submitted in response to this RFP signifies the Offeror agrees to sell to the University the indicated products, in whole or in part, at the sole discretion of the University.
5. Contractor shall be responsible for day to day premises and facilities cleanup, including temporary storage, removal and disposal of debris, trash and rubbish caused by its employees, or installation material men or workmen. All tools, equipment and materials shall be secured upon completion of the day's work. Surplus materials shall be removed from the work site and stored in their appropriate location.
6. Contractor's personnel shall follow University standards and personal conduct codes while on the University's premises. A copy of those standards and codes will be provided to Contractor on request. Personnel found violating these standards or regulations will be asked to leave the work site and shall not be allowed to return.
7. It is Contractor's responsibility to guarantee that all items of hardware, services rendered or working environments meet or exceed those requirements and guidelines established by the Occupational Safety and Health Act (OSHA).
8. Contractor shall warrant and guarantee to the University, without limitations or qualification, that all equipment, components, materials, workmanship and the system as an entity shall conform to and perform in accordance with local building codes.

B. DELIVERY, STORAGE, AND SECURITY

1. The Contractor shall provide pricing for each item to include delivery to the site for all system components and related materials.
2. The Contractor shall coordinate delivery with the University.
3. The Contractor shall unload, uncrate, assemble, and transport each component to its desired location for installation and install the system on-site in accordance with on-site regulations.
4. The Contractor shall be responsible for the cleanup and disposal of all packaging materials and debris.

5. The Contractor shall be responsible for providing any temporary on-site storage for equipment and materials unless adequate on-site storage is available from the University.
6. The University shall not be responsible for security or insurance related to said equipment or materials, even if stored on-site at locations designated or approved by the University.
7. Any temporary storage requirements must be coordinated with the University.

C. DEFINITIONS:

1. "Substantial Completion" – shall be defined as all work under the Contract has been substantially completed in accordance with the terms of the Contract and all displays are fully operational and ready for the intended use. Systems shall be installed, all rack equipment installed, all cabling completed, system has been commissioned and tested in accordance with applicable requirements of the Technical Specifications and the Contract. The project is ready for final punch list by the University and/or the University's designated representative.
2. "Final Completion" – shall be defined as all punch list items have been completed and all work under the Contract is ready for final acceptance by the University once three (3) consecutive problem free events have been completed as defined by Section 3.6.F of the Technical Specifications.

D. RESPONSE REQUIRED BY OFFERORS

1. Describe in detail offeror's approach to provide the RFP parameters as laid out in the Scope of Work and Technical Specifications, Attachment D.
 - a. Provide the following: In addition to proposing specifically for what is specified in this RFP, the Offeror is encouraged to furnish alternative solutions that may satisfy or complement the solution proposed in this RFP.
 - b. Provide the following: Offerors are also encouraged to suggest alternative solutions that would reduce the overall cost without hindering the performance of the system from its intended use.
2. Describe all options for on-site event support services (and provide detailed pricing, including travel, in X. Pricing Schedule).
3. Describe any and all options for Full-Time Production Support to be located at JMU (e.g. an Event Producer).
4. Describe content and animation services available for the duration of the contract (and provide detailed pricing, including travel as applicable, in X. Pricing Schedule).
5. Describe all training options available (remote and/or on premises) for the duration of the contract in addition to training as outlined in 3.6 of Attachment D.
 - a. Provide pricing for hourly and daily rates (to include travel costs for on premises training) in X. Pricing Schedule.
6. Describe the procedures for obtaining services for all types of maintenance and applicable "escalation" procedures for providing additional assistance in diagnosing a failure that is

not resolved in a timely manner, to include notification procedures and timing as well as what higher levels of assistance will be made available.

7. Provide a complete list of references for similar installations performed in the past 3 years with name of facility, photo of installation, contact name, title, address and direct phone number.
8. Provide a formal list of intended design professionals, sub-contractors and suppliers, including primary place of business, and estimated dollar amount. Contractor, subcontractors, and design professionals shall be licensed by appropriate Virginia authorities / board as appropriate and required by law. Proposals should include a statement indicating the licensing status of Contractor, subcontractors, and design professionals required to be licensed in Virginia and identified in your proposal
9. Provide an Equipment List with line item pricing.
10. Provide product cut sheets and technical data for each item proposed.
11. Specify services provided as part of the required two (2) year parts and labor warranty.

E. TENTATIVE SCHEDULE

1. The University anticipates delivery and installation will be approximately July 2019, subject to change based on overall project schedule, to be coordinated and confirmed by the awarded vendor with the University and General Contractor. Describe, in detail, your ability to meet the tentative schedule provided.

V. PROPOSAL PREPARATION AND SUBMISSION

A. GENERAL INSTRUCTIONS

To ensure timely and adequate consideration of your proposal, offerors are to limit all contact, whether verbal or written, pertaining to this RFP to the James Madison University Procurement Office for the duration of this Proposal process. Failure to do so may jeopardize further consideration of Offeror's proposal.

1. RFP Response: In order to be considered for selection, the **Offeror shall submit a complete response to this RFP**; and shall submit to the issuing Purchasing Agency:
 - a. **One (1) original and nine (9) copies** of the entire proposal, INCLUDING ALL ATTACHMENTS. Any proprietary information should be clearly marked in accordance with 3.f. below.
 - b. **One (1) electronic copy in WORD format or searchable PDF (CD or flash drive)** of the entire proposal, INCLUDING ALL ATTACHMENTS. **Attachment F pricing should be returned as an Excel file on a CD or flash drive.** Any proprietary information should be clearly marked in accordance with 3.f. below.
 - c. Should the proposal contain **proprietary information**, provide **one (1) redacted hard copy** of the proposal and all attachments with **proprietary portions removed or blacked out**. This copy should be clearly marked "*Redacted Copy*" on the front cover.

The classification of an entire proposal document, line item prices, and/or total proposal prices as proprietary or trade secrets is not acceptable. JMU shall not be responsible for the Contractor's failure to exclude proprietary information from this redacted copy.

No other distribution of the proposal shall be made by the Offeror.

2. The version of the solicitation issued by JMU Procurement Services, as amended by an addenda, is the mandatory controlling version of the document. Any modification of, or additions to, the solicitation by the Offeror shall not modify the official version of the solicitation issued by JMU Procurement services unless accepted in writing by the University. Such modifications or additions to the solicitation by the Offeror may be cause for rejection of the proposal; however, JMU reserves the right to decide, on a case-by-case basis in its sole discretion, whether to reject such a proposal. If the modification or additions are not identified until after the award of the contract, the controlling version of the solicitation document shall still be the official state form issued by Procurement Services.
3. Proposal Preparation
 - a. Proposals shall be signed by an authorized representative of the Offeror. All information requested should be submitted. Failure to submit all information requested may result in the purchasing agency requiring prompt submissions of missing information and/or giving a lowered evaluation of the proposal. Proposals which are substantially incomplete or lack key information may be rejected by the purchasing agency. Mandatory requirements are those required by law or regulation or are such that they cannot be waived and are not subject to negotiation.
 - b. Proposals shall be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.
 - c. Proposals should be organized in the order in which the requirements are presented in the RFP. All pages of the proposal should be numbered. Each paragraph in the proposal should reference the paragraph number of the corresponding section of the RFP. It is also helpful to cite the paragraph number, sub letter, and repeat the text of the requirement as it appears in the RFP. If a response covers more than one page, the paragraph number and sub letter should be repeated at the top of the next page. The proposal should contain a table of contents which cross references the RFP requirements. Information which the offeror desires to present that does not fall within any of the requirements of the RFP should be inserted at the appropriate place or be attached at the end of the proposal and designated as additional material. Proposals that are not organized in this manner risk elimination from consideration if the evaluators are unable to find where the RFP requirements are specifically addressed.
 - d. As used in this RFP, the terms "must", "shall", "should" and "may" identify the criticality of requirements. "Must" and "shall" identify requirements whose absence will have a major negative impact on the suitability of the proposed solution. Items labeled as "should" or "may" are highly desirable, although their absence will not have a large impact and would be useful, but are not necessary. Depending on the overall response to the RFP, some individual "must" and "shall" items may not be fully satisfied, but it is the intent to satisfy most, if not all, "must" and "shall" requirements. The inability of an offeror to satisfy a "must" or "shall" requirement does not

automatically remove that offeror from consideration; however, it may seriously affect the overall rating of the offeror's proposal.

- e. Each copy of the proposal should be bound or contained in a single volume where practical. All documentation submitted with the proposal should be contained in that single volume.
 - f. Ownership of all data, materials and documentation originated and prepared for the State pursuant to the RFP shall belong exclusively to the State and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by the offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act; however, the offeror must invoke the protection of Section 2.2-4342F of the Code of Virginia, in writing, either before or at the time the data is submitted. The written notice must specifically identify the data or materials to be protected and state the reasons why protection is necessary. The proprietary or trade secret materials submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information. The classification of an entire proposal document, line item prices and/or total proposal prices as proprietary or trade secrets is not acceptable and will result in rejection and return of the proposal.
4. Oral Presentation: Offerors who submit a proposal in response to this RFP may be required to give an oral presentation of their proposal to James Madison University. This provides an opportunity for the Offeror to clarify or elaborate on the proposal. This is a fact-finding and explanation session only and does not include negotiation. James Madison University will schedule the time and location of these presentations. Oral presentations are an option of the University and may or may not be conducted. Therefore, proposals should be complete.

B. SPECIFIC PROPOSAL INSTRUCTIONS

Proposals should be as thorough and detailed as possible so that James Madison University may properly evaluate your capabilities to provide the required services. Offerors are required to submit the following items as a complete proposal:

1. Return RFP cover sheet and all addenda acknowledgements, if any, signed and filled out as required.
2. Plan and methodology for providing the goods/services as described in Section IV. Statement of Needs of this Request for Proposal.
3. A written narrative statement to include, but not be limited to, the expertise, qualifications, and experience of the firm and resumes of specific personnel to be assigned to perform the work.
4. Offeror Data Sheet, included as *Attachment A* to this RFP.
5. Small Business Subcontracting Plan, included as *Attachment B* to this RFP. Offeror shall provide a Small Business Subcontracting plan which summarizes the planned utilization of Department of Small Business and Supplier Diversity (SBSD)-certified small businesses which include businesses owned by women and minorities, when they have received Department of Small Business and Supplier Diversity (SBSD) small business certification,

under the contract to be awarded as a result of this solicitation. This is a requirement for all prime contracts in excess of \$100,000 unless no subcontracting opportunities exist.

6. Identify the amount of sales your company had during the last twelve months with each VASCUPP Member Institution. A list of VASCUPP Members can be found at: www.VASCUPP.org.
7. Proposed Cost. See Section X. Pricing Schedule of this Request for Proposal.

VI. EVALUATION AND AWARD CRITERIA

A. EVALUATION CRITERIA

Proposals shall be evaluated by James Madison University using the following criteria:

1. Quality of products/services offered and suitability for intended purposes
2. Qualifications and experience of Offeror in providing the goods/services
3. Specific plans or methodology to be used to perform the services
4. Participation of Small, Women-Owned, & Minority (SWaM) Businesses
5. Cost

Allocation of points for evaluation criteria will be published to the eVA solicitation posting prior to the closing date and time.

- B. **AWARD TO MULTIPLE OFFERORS**: Selection shall be made of two or more offerors deemed to be fully qualified and best suited among those submitting proposals on the basis of the evaluation factors included in the Request for Proposals, including price, if so stated in the Request for Proposals. Negotiations shall be conducted with the offerors so selected. Price shall be considered, but need not be the sole determining factor. After negotiations have been conducted with each offeror so selected, the agency shall select the offeror which, in its opinion, has made the best proposal, and shall award the contract to that offeror. The Commonwealth reserves the right to make multiple awards as a result of this solicitation. The Commonwealth may cancel this Request for Proposals or reject proposals at any time prior to an award, and is not required to furnish a statement of the reasons why a particular proposal was not deemed to be the most advantageous. Should the Commonwealth determine in writing and in its sole discretion that only one offeror is fully qualified, or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror. The award document will be a contract incorporating by reference all the requirements, terms and conditions of the solicitation and the contractor's proposal as negotiated.

VII. GENERAL TERMS AND CONDITIONS

- A. **PURCHASING MANUAL**: This solicitation is subject to the provisions of the Commonwealth of Virginia's 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.jmu.edu/procurement> or a copy can be obtained by calling Procurement Services at (540) 568-3145.

- 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 applicable federal, state and local laws and regulations.
- C. ANTI-DISCRIMINATION: By submitting their proposals, offerors 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 §10 of the Rules Governing Procurement, Chapter 2, Exhibit J, Attachment 1 (available for review at <http://www.jmu.edu/procurement>). If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (*§6 of the Rules Governing Procurement*).

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, age, disability, or any 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 proposals, offerors certify that their proposals are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor in connection with their proposal, 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 entering into a written contract with the Commonwealth of Virginia, the Contractor certifies that the Contractor does not, and shall not during the performance of the contract for goods and services in the Commonwealth, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.
- F. DEBARMENT STATUS: By submitting their proposals, offerors certify that they are not currently debarred by the Commonwealth of Virginia from submitting 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 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 RFPs: Failure to submit a proposal on the official state form provided for that purpose may be a 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 offeror has questions about the specifications or other solicitation documents, the prospective offeror should contact the buyer whose name appears on the face of the solicitation no later than **October 7, 2019**. 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 contract 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 (*Rules Governing Procurement, Chapter 2, Exhibit J, Attachment 1 § 53; available for review at <http://www.jmu.edu/procurement>*).

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 subcontractors, 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.
3. Each prime contractor who wins an award in which provision of a SWAM procurement plan is a condition to the award, shall deliver to the contracting agency or institution, on or before request for final payment, evidence and certification of compliance (subject only to insubstantial shortfalls and to shortfalls arising from subcontractor default) with the SWAM procurement plan. Final payment under the contract in question may be withheld until such certification is delivered and, if necessary, confirmed by the agency or institution, or other appropriate penalties may be assessed in lieu of withholding such payment.
4. The Commonwealth of Virginia encourages contractors and subcontractors to accept electronic and credit card payments.

- K. PRECEDENCE OF TERMS: Paragraphs A through J of these General Terms and Conditions and the Commonwealth of Virginia Purchasing Manual for Institutions of Higher Education and their Vendors, 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 OFFERORS: The Commonwealth may make such reasonable investigations as deemed proper and necessary to determine the ability of the offeror to perform the services/furnish the goods and the offeror shall furnish to the Commonwealth all such information and data for this purpose as may be requested. The Commonwealth reserves the right to inspect offeror's physical facilities prior to award to satisfy questions regarding the offeror's capabilities. The Commonwealth further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such offeror fails to satisfy the Commonwealth that such offeror 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 Commonwealth of Virginia 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. **INSURANCE:** By signing and submitting a proposal under this solicitation, the 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 § 25 of the Rules Governing Procurement – Chapter 2, Exhibit J, Attachment 1, and 65.2-800 et. Seq. of the Code of Virginia (available for review at <http://www.jmu.edu/procurement>) The offeror further certifies that the contractor and any subcontractors will maintain these insurance coverage during the entire term of the contract and that all insurance coverage will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

MINIMUM INSURANCE COVERAGES AND LIMITS REQUIRED FOR MOST CONTRACTS:

1. Workers' Compensation: Statutory requirements and benefits. Coverage is compulsory for employers of three or more employees, to include the employer. Contractors who fail to notify the Commonwealth of increases in the number of employees that change their workers' compensation requirement under the Code of Virginia during the course of the contract shall be in noncompliance with the contract.
 2. Employer's Liability: \$100,000
 3. Commercial General Liability: \$1,000,000 per occurrence and \$2,000,000 in the aggregate. Commercial General Liability is to include bodily injury and property damage, personal injury and advertising injury, products and completed operations coverage. The Commonwealth of Virginia must be named as an additional insured and so endorsed on the policy.
 4. Automobile Liability: \$1,000,000 combined single limit. *(Required only if a motor vehicle not owned by the Commonwealth is to be used in the contract. Contractor must assure that the required coverage is maintained by the Contractor (or third party owner of such motor vehicle.)*
- R. **ANNOUNCEMENT OF AWARD:** Upon the award or the announcement of the decision to award a contract over \$100,000, as a result of this solicitation, the purchasing agency will publicly post such notice on the DGS/DPS eVA web site (www.eva.virginia.gov) for a minimum of 10 days.

- S. **DRUG-FREE WORKPLACE:** During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (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 foregoing 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, 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.

- T. **NONDISCRIMINATION OF CONTRACTORS:** An offeror, or contractor shall not be discriminated against in the solicitation or award of this contract because of race, religion, color, sex, national origin, age, disability, faith-based organizational status, any other basis prohibited by state law relating to discrimination in employment or because the offeror employs ex-offenders unless the state agency, department or institution has made a written determination that employing ex-offenders on the specific contract is not in its best interest. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

- U. **eVA BUSINESS TO GOVERNMENT VENDOR REGISTRATION, CONTRACTS, AND ORDERS:** The eVA Internet electronic procurement solution, website portal www.eVA.virginia.gov, streamlines and automates government purchasing activities in the Commonwealth. The eVA portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet eprocurement solution by completing the free eVA Vendor Registration. All offerors must register in eVA and pay the Vendor Transaction Fees specified below; failure to register will result in the proposal being rejected. Vendor transaction fees are determined by the date the original purchase order is issued and the current fees are as follows:

Vendor transaction fees are determined by the date the original purchase order is issued and the current fees are as follows:

1. For orders issued July 1, 2014 and after, the Vendor Transaction Fee is:
 - a. Department of Small Business and Supplier Diversity (SBSD) certified Small Businesses: 1% capped at \$500 per order.
 - b. Businesses that are not Department of Small Business and Supplier Diversity (SBSD) certified Small Businesses: 1% capped at \$1,500 per order.

2. For orders issued prior to July 1, 2014 the vendor transaction fees can be found at www.eVA.virginia.gov.
 3. The specified vendor transaction fee will be invoiced by the Commonwealth of Virginia Department of General Services approximately 60 days after the corresponding purchase order is issued and payable 30 days after the invoice date. Any adjustments (increases/decreases) will be handled through purchase order changes.
- V. AVAILABILITY OF FUNDS: It is understood and agreed between the parties herein that the Commonwealth of Virginia shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.
- W. PRICING CURRENCY: Unless stated otherwise in the solicitation, offerors shall state offered prices in U.S. dollars.
- X. E-VERIFY REQUIREMENT OF ANY CONTRACTOR: Any employer with more than an average of 50 employees for the previous 12 months entering into a contract in excess of \$50,000 with James Madison University to perform work or provide services pursuant to such contract shall register and participate in the E-Verify program to verify information and work authorization of its newly hired employees performing work pursuant to any awarded contract.
- Y. 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.
- Z. TRANSPORTATION AND PACKAGING: By submitting their proposals, all Offerors 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.

VIII. SPECIAL TERMS AND CONDITIONS

- A. ADVERTISING: In the event a contract is awarded for supplies, equipment, or services resulting from this bid/proposal, no indication of such sales or services to James Madison University will be used in product literature or advertising. The contractor shall not state in any of its advertising or product literature that James Madison University has purchased or uses any of its products or services, and the contractor shall not include James Madison University in any client list in advertising and promotional materials.
- B. AUDIT: The Contractor hereby agrees to retain all books, records, systems, 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 Commonwealth of Virginia, its authorized agents, and/or State auditors shall have full access to and the right to examine any of said materials during said period.
- C. CANCELLATION OF CONTRACT: James Madison University reserves the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon 60 days written notice to the contractor. In the event the initial contract period is for more than 12 months, the resulting contract may be terminated by either party, without penalty, after the initial 12 months

of the contract period upon 60 days written notice to the other party. Any contract cancellation notice shall not relieve the contractor of the obligation to deliver and/or perform on all outstanding orders issued prior to the effective date of cancellation.

- D. **IDENTIFICATION OF PROPOSAL ENVELOPE:** The signed proposal should be returned in a separate envelope or package, sealed and identified as follows:

From:			
	Name of Offeror	Due Date	Time
	Street or Box No.	RFP #	
	City, State, Zip Code	RFP Title	
Name of Purchasing Officer:			

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

The Offeror takes the risk that if the envelope is not marked as described above, it may be inadvertently opened and the information compromised, which may cause the proposal to be disqualified. Proposals may be hand-delivered to the designated location in the office issuing the solicitation. No other correspondence or other proposals should be placed in the envelope.

- E. **LATE PROPOSALS:** To be considered for selection, proposals must be received by the issuing office by the designated date and hour. The official time used in the receipt of proposals is that time on the automatic time stamp machine in the issuing office. Proposals received in the issuing office after the date and hour designated are automatically non responsive and will not be considered. The University is not responsible for delays in the delivery of mail by the U.S. Postal Service, private couriers, or the intra university mail system. It is the sole responsibility of the Offeror to ensure that its proposal reaches the issuing office by the designated date and hour.
- F. **UNDERSTANDING OF REQUIREMENTS:** It is the responsibility of each offeror to inquire about and clarify any requirements of this solicitation that is not understood. The University will not be bound by oral explanations as to the meaning of specifications or language contained in this solicitation. Therefore, all inquiries deemed to be substantive in nature must be in writing and submitted to the responsible buyer in the Procurement Services Office. **Offerors are asked to include reference to RFP section, page, and item number in their questions when relevant.** Offerors must ensure that written inquiries reach the buyer by **October 7, 2019**. A copy of all queries and the respective response will be provided in the form of an addendum to all offerors who have indicated an interest in responding to this solicitation. Your signature on your Offer certifies that you fully understand all facets of this solicitation. These questions may be sent to the Buyer as referenced on the signature sheet.
- G. **RENEWAL OF CONTRACT:** This contract may be renewed by the Commonwealth for a period of eight (8) successive one year periods under the terms and conditions of the original contract except as stated in 1. and 2. below. Price increases may be negotiated only at the time of renewal. Written notice of the Commonwealth's intention to renew shall be given approximately 90 days prior to the expiration date of each contract period.
1. If the Commonwealth elects to exercise the option to renew the contract for an additional one-year period, the contract price(s) for the additional one year shall not exceed the contract price(s) of the original contract increased/decreased by no more than the

percentage increase/decrease of the other services category of the CPI-W section of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.

2. If during any subsequent renewal periods, the Commonwealth elects to exercise the option to renew the contract, the contract price(s) for the subsequent renewal period shall not exceed the contract price(s) of the previous renewal period increased/decreased by more than the percentage increase/decrease of the other services category of the CPI-W section of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.
- H. SUBMISSION OF INVOICES: All invoices shall be submitted within sixty days of contract term expiration for the initial contract period as well as for each subsequent contract renewal period. Any invoices submitted after the sixty day period will not be processed for payment.
- I. OPERATING VEHICLES ON JAMES MADISON UNIVERSITY CAMPUS: Operating vehicles on sidewalks, plazas, and areas heavily used by pedestrians is prohibited. In the unlikely event a driver should find it necessary to drive on James Madison University sidewalks, plazas, and areas heavily used by pedestrians, the driver must yield to pedestrians. For a complete list of parking regulations, please go to www.jmu.edu/parking; or to acquire a service representative parking permit, contact Parking Services at 540.568.3300. The safety of our students, faculty and staff is of paramount importance to us. Accordingly, violators may be charged.
- J. COOPERATIVE PURCHASING / USE OF AGREEMENT BY THIRD PARTIES: It is the intent of this solicitation and resulting contract(s) to allow for cooperative procurement. Accordingly, any public body, (to include government/state agencies, political subdivisions, etc.), cooperative purchasing organizations, public or private health or educational institutions or any University related foundation and affiliated corporations may access any resulting contract if authorized by the Contractor.

Participation in this cooperative procurement is strictly voluntary. If authorized by the Contractor(s), the resultant contract(s) will be extended to the entities indicated above to purchase goods and services in accordance with contract terms. As a separate contractual relationship, the participating entity will place its own orders directly with the Contractor(s) and shall fully and independently administer its use of the contract(s) to include contractual disputes, invoicing and payments without direct administration from the University. No modification of this contract or execution of a separate agreement is required to participate; however, the participating entity and the Contractor may modify the terms and conditions of this contract to accommodate specific governing laws, regulations, policies, and business goals required by the participating entity. Any such modification will apply solely between the participating entity and the Contractor.

The Contractor will notify the University in writing of any such entities accessing this contract. The Contractor will provide semi-annual usage reports for all entities accessing the contract. The University shall not be held liable for any costs or damages incurred by any other participating entity as a result of any authorization by the Contractor to extend the contract. It is understood and agreed that the University is not responsible for the acts or omissions of any entity and will not be considered in default of the contract no matter the circumstances.

Use of this contract(s) does not preclude any participating entity from using other contracts or competitive processes as needed.

K. SMALL BUSINESS SUBCONTRACTING AND EVIDENCE OF COMPLIANCE:

1. It is the goal of the Commonwealth that 42% of its purchases are made from small businesses. This includes discretionary spending in prime contracts and subcontracts. All potential offerors are required to submit a Small Business Subcontracting Plan. Unless the offeror is registered as a Department of Small Business and Supplier Diversity (SBSD)-certified small business and where it is practicable for any portion of the awarded contract to be subcontracted to other suppliers, the contractor is encouraged to offer such subcontracting opportunities to SBSD-certified small businesses. This shall not exclude SBSD-certified women-owned and minority-owned businesses when they have received SBSD small business certification. No offeror or subcontractor shall be considered a Small Business, a Women-Owned Business or a Minority-Owned Business unless certified as such by the Department of Small Business and Supplier Diversity (SBSD) by the due date for receipt of proposals. If small business subcontractors are used, the prime contractor agrees to report the use of small business subcontractors by providing the purchasing office at a minimum the following information: name of small business with the SBSD certification number or FEIN, phone number, total dollar amount subcontracted, category type (small, women-owned, or minority-owned), and type of product/service provided. **This information shall be submitted to: JMU Office of Procurement Services, Attn: SWAM Subcontracting Compliance, MSC 5720, Harrisonburg, VA 22807.**
2. Each prime contractor who wins an award in which provision of a small business subcontracting plan is a condition of the award, shall deliver to the contracting agency or institution with every request for payment, evidence of compliance (subject only to insubstantial shortfalls and to shortfalls arising from subcontractor default) with the small business subcontracting plan. **This information shall be submitted to: JMU Office of Procurement Services, SWAM Subcontracting Compliance, MSC 5720, Harrisonburg, VA 22807.** When such business has been subcontracted to these firms and upon completion of the contract, the contractor agrees to furnish the purchasing office at a minimum the following information: name of firm with the Department of Small Business and Supplier Diversity (SBSD) certification number or FEIN number, phone number, total dollar amount subcontracted, category type (small, women-owned, or minority-owned), and type of product or service provided. Payment(s) may be withheld until compliance with the plan is received and confirmed by the agency or institution. The agency or institution reserves the right to pursue other appropriate remedies to include, but not be limited to, termination for default.
3. Each prime contractor who wins an award valued over \$200,000 shall deliver to the contracting agency or institution with every request for payment, information on use of subcontractors that are not Department of Small Business and Supplier Diversity (SBSD)-certified small businesses. When such business has been subcontracted to these firms and upon completion of the contract, the contractor agrees to furnish the purchasing office at a minimum the following information: name of firm, phone number, FEIN number, total dollar amount subcontracted, and type of product or service provided. **This information shall be submitted to: JMU Office of Procurement Services, Attn: SWAM Subcontracting Compliance, MSC 5720, Harrisonburg, VA 22807.**

- L. AUTHORIZATION TO CONDUCT BUSINESS IN THE COMMONWEALTH: A contractor organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia or as otherwise required by law. Any business entity described above that enters into a contract with a public body shall not allow its existence

to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the contract. A public body may void any contract with a business entity if the business entity fails to remain in compliance with the provisions of this section.

- M. PUBLIC POSTING OF COOPERATIVE CONTRACTS: James Madison University maintains a web-based contracts database with a public gateway access. Any resulting cooperative contract/s to this solicitation will be posted to the publicly accessible website. Contents identified as proprietary information will not be made public.
- N. CRIMINAL BACKGROUND CHECKS OF PERSONNEL ASSIGNED BY CONTRACTOR TO PERFORM WORK ON JMU PROPERTY: The Contractor shall obtain criminal background checks on all of their contracted employees who will be assigned to perform services on James Madison University property. The results of the background checks will be directed solely to the Contractor. The Contractor bears responsibility for confirming to the University contract administrator that the background checks have been completed prior to work being performed by their employees or subcontractors. The Contractor shall only assign to work on the University campus those individuals whom it deems qualified and permissible based on the results of completed background checks. Notwithstanding any other provision herein, and to ensure the safety of students, faculty, staff and facilities, James Madison University reserves the right to approve or disapprove any contract employee that will work on JMU property. Disapproval by the University will solely apply to JMU property and should have no bearing on the Contractor's employment of an individual outside of James Madison University.
- O. INDEMNIFICATION: Contractor agrees to indemnify, defend and hold harmless the Commonwealth of Virginia, its officers, agents, and employees from any claims, damages and actions of any kind or nature, whether at law or in equity, arising from or caused by the use of any materials, goods, or equipment of any kind or nature furnished by the contractor/any services of any kind or nature furnished by the contractor, provided that such liability is not attributable to the sole negligence of the using agency or to failure of the using agency to use the materials, goods, or equipment in the manner already and permanently described by the contractor on the materials, goods or equipment delivered.
- P. ADDITIONAL GOODS AND SERVICES: The University may acquire other goods or services that the supplier provides than those specifically solicited. The University reserves the right, subject to mutual agreement, for the Contractor to provide additional goods and/or services under the same pricing, terms, and conditions and to make modifications or enhancements to the existing goods and services. Such additional goods and services may include other products, components, accessories, subsystems, or related services that are newly introduced during the term of this Agreement. Such additional goods and services will be provided to the University at favored nations pricing, terms, and conditions.
- Q. ELECTRICAL EQUIPMENT STANDARDS: All equipment/material shall conform to the latest issue of all applicable standards as established by National Electrical Manufacturer's Association (NEMA), American National Standards Institute (ANSI), and Occupational Safety & Health Administration (OSHA). All equipment and material, for which there are OSHA standards, shall bear an appropriate label of approval for use intended from a Nationally Recognized Testing Laboratory (NRTL).
- R. EXTRA CHARGES NOT ALLOWED: The pricing shall be for complete installation ready for the Commonwealth's use, and shall include all applicable freight and installation charges; extra charges will not be allowed.

- S. CONFIDENTIALITY (Commonwealth): The Commonwealth agrees that neither it nor its employees, representatives, or agents shall knowingly divulge any proprietary information with respect to the operation of the software, the technology embodied therein, or any other trade secret or proprietary information related thereto, except as specifically authorized by the contractor in writing or as required by the Freedom of Information Act or similar law. It shall be the contractor's responsibility to fully comply with § 11-52 D of the *Code of Virginia*. All trade secrets or proprietary information must be identified in writing or other tangible form and conspicuously labeled as "proprietary" either prior to or at the time of submission to the Commonwealth.
- T. LATEST SOFTWARE VERSION: Any software product(s) provided under the contract shall be the latest version available to the general public as of the due date of this solicitation.
- U. PRODUCT SUBSTITUTION: During the term of any contract resulting from this solicitation, the vendor is not authorized to substitute any item for that product and/or software identified in the solicitation without the prior written consent of the contracting officer whose name appears on the front of this solicitation, or their designee.
- V. QUALIFIED REPAIR PERSONNEL: All warranty or maintenance services to be performed on the items specified in this solicitation as well as any associated hardware or software shall be performed by qualified technicians properly authorized by the manufacturer to perform such services. The Commonwealth reserves the right to require proof of certification prior to award and at any time during the term of the contract.
- W. RELOCATION OF EQUIPMENT: Should it become necessary to move equipment covered by the contract to another location, the Commonwealth reserves the right to do so at its own expense. If contractor supervision is required, the Commonwealth will provide prior written notice of the move at least thirty days in advance, in which case the contractor shall provide the required services and be reasonably compensated by the Commonwealth. Both the compensation to be paid and any adjustment to the maintenance terms resulting from the move shall be as mutually agreed between the parties. Regular maintenance charges shall be suspended on the day the equipment is dismantled and resume once the equipment is again certified ready for operational use.
- X. RENEWAL OF MAINTENANCE: Maintenance of the hardware or software specified in the resultant contract may be renewed by the mutual written agreement of both parties for additional one-year periods, under the terms and conditions of the original contract except as noted herein. Price changes may be negotiated at time of renewal; however, in no case shall the maintenance costs for a succeeding one-year period exceed the prior year's contract price(s), increased or decreased by more than the percentage increase or decrease in the other services category of the CPI-W section of the US Bureau of Labor Statistics Consumer Price Index, for the latest twelve months for which statistics are available.
- Y. REPAIR PARTS: In the event that the performance of maintenance services under the contract results in a need to replace defective parts, such items may only be replaced by new parts. In no instance shall the contractor be permitted to replace defective items with refurbished, remanufactured, or surplus items without prior written authorization of the Commonwealth.
- Z. SERVICE PERIOD (EXTENDED): Due to the criticality of the applications for which the equipment and/or software is purchased, the contractor shall provide 24 hours a day, 7 days a week, maintenance support, including state holidays. On-site response time shall be within 12-24 hours following initial notification. All necessary repairs or corrections shall be completed

within 72 hours of the initial notification.

- AA. SERVICE PERIOD (ROUTINE): Contractor shall provide 24-hour toll free phone support with a 24 hour return call response time. On-site maintenance services shall carry a 12-24 hour response time following initial notification and be available during the normal working hours of 8 A.M. to 5 P.M. Monday through Friday, excluding state holidays. All necessary repairs or corrections shall be completed within 72 hours of the initial notification.
- BB. SERVICE REPORTS: Upon completion of any maintenance call, the contractor shall provide the agency with a signed service report that includes, at a minimum: a general statement as to the problem, action taken, any materials or parts furnished or used, and the number of hours required to complete the repairs.
- CC. SOFTWARE UPGRADES: The Commonwealth shall be entitled to any and all upgraded versions of the software covered in the contract that becomes available from the contractor. The maximum charge for upgrade shall not exceed the total difference between the cost of the Commonwealth's current version and the price the contractor sells or licenses the upgraded software under similar circumstances.
- DD. SOURCE CODE: In the event the contractor ceases to maintain experienced staff and the resources needed to provide required software maintenance, the Commonwealth shall be entitled to have, use, and duplicate for its own use, a copy of the source code and associated documentation for the software products covered by the contract. Until such time as a complete copy of such material is provided, the Commonwealth shall have exclusive right to possess all physical embodiments of such contractor owned materials. The rights of the Commonwealth in this respect shall survive for a period of twenty years after the expiration or termination of the contract. All lease and royalty fees necessary to support this right are included in the initial license fee as contained in the pricing schedule.
- EE. TERM OF SOFTWARE LICENSE: Unless otherwise stated in the solicitation, the software license(s) identified in the pricing schedule shall be purchased on a perpetual basis and shall continue in perpetuity. However the Commonwealth reserves the right to terminate the license at any time, although the mere expiration or termination of this contract shall not be construed as an intent to terminate the license. All acquired license(s) shall be for use at any computing facilities, on any equipment, by any number of users, and for any purposes for which it is procured. The Commonwealth further reserves the right to transfer all rights under the license to another state agency to which some or all of its functions are transferred.
- FF. THIRD PARTY ACQUISITION OF SOFTWARE: The contractor shall notify the procuring agency in writing should the intellectual property, associated business, or all of its assets be acquired by a third party. The contractor further agrees that the contract's terms and conditions, including any and all license rights and related services, shall not be affected by the acquisition. Prior to completion of the acquisition, the contractor shall obtain, for the Commonwealth's benefit and deliver thereto, the assignee's agreement to fully honor the terms of the contract.
- GG. TITLE TO SOFTWARE: By submitting a bid or proposal, the bidder or offeror represents and warrants that it is the sole owner of the software or, if not the owner, that it has received all legally required authorizations from the owner to license the software, has the full power to grant the rights required by this solicitation, and that neither the software nor its use in accordance with the contract will violate or infringe upon any patent, copyright, trade secret, or any other property rights of another person or organization.

- HH. WARRANTY AGAINST SHUTDOWN DEVICES: The contractor warrants that the equipment and software provided under the contract shall not contain any lock, counter, CPU reference, virus, worm, or other device capable of halting operations or erasing or altering data or programs. Contractor further warrants that neither it, nor its agents, employees, or subcontractors shall insert any shutdown device following delivery of the equipment and software.
- II. WARRANTY (COMMERCIAL): The contractor agrees that the goods or services furnished under any award resulting from this solicitation shall be covered by the most favorable commercial warranties the contractor gives any customer for such goods or services and that the rights and remedies provided therein are in addition to and do not limit those available to the Commonwealth by any other clause of this solicitation. A copy of this warranty should be furnished with the proposal.
- JJ. NONVISUAL ACCESS TO TECHNOLOGY: All information technology which, pursuant to this Agreement, is purchased or upgraded by or for the use of any State agency or institution or political subdivision of the Commonwealth (the "Technology") shall comply with the following nonvisual access standards from the date of purchase or upgrade until the expiration of this Agreement:
- (i) effective, interactive control and use of the Technology shall be readily achievable by nonvisual means;
 - (ii) the Technology equipped for nonvisual access shall be compatible with information technology used by other individuals with whom any blind or visually impaired user of the Technology interacts;
 - (iii) nonvisual access technology shall be integrated into any networks used to share communications among employees, program participants or the public; and
 - (iv) the technology for nonvisual access shall have the capability of providing equivalent access by nonvisual means to telecommunications or other interconnected network services used by persons who are not blind or visually impaired.

Compliance with the foregoing nonvisual access standards shall not be required if the head of the using agency, institution or political subdivision determines that (i) the Technology is not available with nonvisual access because the essential elements of the Technology are visual and (ii) nonvisual equivalence is not available.

Installation of hardware, software or peripheral devices used for nonvisual access is not required when the Technology is being used exclusively by individuals who are not blind or visually impaired, but applications programs and underlying operating systems (including the format of the data) used for the manipulation and presentation of information shall permit the installation and effective use of nonvisual access software and peripheral devices.

If requested, the Contractor must provide a detailed explanation of how compliance with the foregoing nonvisual access standards is achieved and a validation of concept demonstration.

The requirements of this Paragraph shall be construed to achieve full compliance with the Information Technology Access Act, 2.2-3500 through 2.2-3504 of the *Code of Virginia*.

All information technology which, pursuant to this Agreement, is purchased or upgraded by or for the use of any Commonwealth agency or institution or political subdivision of the Commonwealth (the "Technology") shall comply with Section 508 of the Rehabilitation Act (29 U.S.C. 794d), as amended. If requested, the Contractor must provide a detailed explanation of how compliance with Section 508 of the Rehabilitation Act is achieved and a validation of concept demonstration. (<http://www.section508.gov/>). The requirements of this Paragraph along with the Non-Visual Access to Technology Clause shall be construed to achieve full compliance with the Information Technology Access Act, §§2.2-3500 through 2.2-3504 of the *Code of Virginia*.

KK. AS BUILT DRAWINGS: The contractor shall provide the Commonwealth a clean set of reproducible "as built" drawings and wiring diagrams, marked to record all changes made during installation or construction. The contractor shall also provide the Commonwealth with maintenance manuals, parts lists and a copy of all warranties for all equipment. All "as built" drawings and wiring diagrams, maintenance manuals, parts lists and warranties shall be delivered to the Commonwealth upon completion of the work and prior to final payment.

LL. CONTRACTOR REGISTRATION: If a contract for construction, removal, repair or improvement of a building or other real property is for \$120,000 or more, or if the total value of all such contracts undertaken by bidder/offeror within any 12-month period is \$750,000 or more, the bidder/offeror is required under Title 54.1-1100, *Code of Virginia* (1950), as amended, to be licensed by the State Board of Contractors a "CLASS A CONTRACTOR." If such a contract is for \$10,000 or more but less than \$120,000, or if the total value of all such contracts undertaken by bidder/offeror within any 12-month period is \$150,000 or more, but less than \$750,000 or more, the bidder/offeror is required to be licensed as a "CLASS B CONTRACTOR." If such a contract is over \$1,000 but less than \$10,000, or if the contractor does less than \$150,000 in business in a 12-month period, the bidder/offeror is required to be licensed as a "CLASS C CONTRACTOR." The board shall require a master tradesmen license as a condition of licensure for electrical, plumbing and heating, ventilation and air conditioning contractors. The bidder/offeror shall place on the outside of the envelope containing the bid/proposal and shall place in the bid/proposal over his signature whichever of the following notations is appropriate, inserting his contractor license number:

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

If the bidder/offeror shall fail to provide this information on his bid/proposal or on the envelope containing the bid/proposal 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/proposals, he shall be deemed to be in violation of § 54.1-1115 of the *Code of Virginia* (1950), as amended, and his bid/proposal will not be considered.

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

MM. DELIVERY AND STORAGE: It shall be the responsibility of the contractor to make all arrangements for delivery, unloading, receiving and storing materials in the building during

installation. The owner will not assume any responsibility for receiving these shipments. Contractor shall check with the owner and make necessary arrangements for security and storage space in the building during installation.

- NN. FINAL INSPECTION: At the conclusion of the work, the contractor shall demonstrate to the authorized owner's representative that the work is fully operational and in compliance with contract specifications and codes. Any deficiencies shall be promptly and permanently corrected by the contractor at the contractor's sole expense prior to final acceptance of the work.
- OO. MAINTENANCE MANUALS: The contractor shall provide with each piece of equipment an operations and maintenance manual with wiring diagrams, parts list, and a copy of all warranties.
- GGG. WORK SITE DAMAGES: Any damage to existing utilities, equipment or finished surfaces resulting from the performance of this contract shall be repaired to the Commonwealth's satisfaction at the contractor's expense.
- HHH. INSTALLATION: All items must be assembled and set in place, ready for use. All crating and other debris must be removed from the premises.
- III. 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 chattel mortgage or under a conditional sales or other agreement by which an interest is retained by the seller. The contractor warrants that he has clear title to all materials and supplies for which he invoices for payment.
- JJJ. PRIME CONTRACTOR RESPONSIBILITIES: The contractor shall be responsible for completely supervising and directing the work under this contract and all subcontractors that he may utilize, using his best skill and attention. Subcontractors who perform work under this contract shall be responsible to the prime contractor. The contractor agrees that he is as fully responsible for the acts and omissions of his subcontractors and of persons employed by them as he is for the acts and omissions of his own employees.
- KKK. SUBCONTRACTS: No portion of the work shall be subcontracted without prior written consent of the purchasing agency. In the event that the contractor desires to subcontract some part of the work specified herein, the contractor shall furnish the purchasing agency the names, qualifications and experience of their proposed subcontractors. The contractor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract.
- LLL. KEYS: If the Contractor is given keys for this project, it is the Contractor's responsibility to return the keys when the contract is terminated, as well as for the safekeeping of the keys during the contract period. The Contractor shall not loan or duplicate the keys. In the event the Contractor loses the keys, they will be charged for the replacement of the keys and any locks which are rekeyed or replaced.
- MMM. STANDARDS OF CONDUCT: The work site will be occupied by students and University Personnel during the times work is performed. Contractor and Contractor's personnel shall exercise a particularly high level of discipline, safety and cooperation at all times while on the job site. The Contractor shall be responsible for controlling employee conduct, for assuring

that its employees are not boisterous or rude, and assuring that they are not engaging in any destructive or criminal activity.

IX. METHOD OF PAYMENT

The contractor will be paid on the basis of invoices submitted in accordance with the solicitation and any negotiations. James Madison University recognizes the importance of expediting the payment process for our vendors and suppliers. We are asking our vendors and suppliers to enroll in the Wells Fargo Bank single use Commercial Card Number process or electronic deposit (ACH) to your bank account so that future payments are made electronically. Contractors signed up for the Wells Fargo Bank single use Commercial Card Number process will receive the benefit of being paid in Net 15 days. Additional information is available online at:

<http://www.jmu.edu/financeoffice/accounting-operations-disbursements/cash-investments/vendor-payment-methods.shtml>

X. PRICING SCHEDULE

The offeror shall provide pricing for all products and services included in proposal indicating one-time and on-going costs.

Provide pricing for items included in Section IV Statement of Needs.

Provide a completed copy of the attached Displays and Scoring System Pricing Form (Attachment F, attached to posting as a separate Excel spreadsheet) both in print and accompanying your electronic submission (See Section V. Proposal Preparation and Submission).

Specify any associated charge card processing fees, if applicable, to be billed to the university. Vendors shall provide their VISA registration number when indicating charge card processing fees. Any vendor requiring information on VISA registration may refer to <https://usa.visa.com/support/small-business/regulations-fees.html> and for questions <https://usa.visa.com/dam/VCOM/global/support-legal/documents/merchant-surcharging-qa-for-web.pdf>.

XI. ATTACHMENTS

Attachment A: Offeror Data Sheet

Attachment B: Small, Women, and Minority-owned Business (SWaM) Utilization Plan

Attachment C: Standard Contract Sample

Attachment D: Scope of Work and Technical Specifications

Attachment E: JMU Atlantic Union Bank Center AJP RFP Drawings – attached as a separate PDF file

Attachment F: Displays and Scoring System Pricing Form - attached as a separate Excel spreadsheet (*All Offerors are required to complete*)

ATTACHMENT A

OFFEROR DATA SHEET

TO BE COMPLETED BY OFFEROR

1. **QUALIFICATIONS OF OFFEROR:** Offerors 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 these types of goods and services.

Years _____ Months _____

3. **REFERENCES:** Indicate below a listing of at least five (5) organizations, either commercial or governmental/educational, that your agency is servicing. Include the name and address of the person the purchasing agency has your permission to contact.

CLIENT	LENGTH OF SERVICE	ADDRESS	CONTACT PERSON/PHONE #
--------	-------------------	---------	---------------------------

4. List full names and addresses of Offeror and any branch offices which may be responsible for administering the contract.

5. **RELATIONSHIP WITH THE COMMONWEALTH OF VIRGINIA:** Is any member of the firm an employee of the Commonwealth of Virginia who has a personal interest in this contract pursuant to the [CODE OF VIRGINIA](#), SECTION 2.2-3100 – 3131?

[] YES [] NO

IF YES, EXPLAIN: _____

ATTACHMENT B

Small, Women and Minority-owned Businesses (SWaM) Utilization Plan

Offeror Name: _____ **Preparer Name:** _____

Date: _____

Is your firm a **Small Business Enterprise** certified by the Department of Small Business and Supplier Diversity (SBSD)? Yes _____ No _____

If yes, certification number: _____ Certification date: _____

Is your firm a **Woman-owned Business Enterprise** certified by the Department of Small Business and Supplier Diversity (SBSD)? Yes _____ No _____

If yes, certification number: _____ Certification date: _____

Is your firm a **Minority-Owned Business Enterprise** certified by the Department of Small Business and Supplier Diversity (SBSD)? Yes _____ No _____

If yes, certification number: _____ Certification date: _____

Is your firm a **Micro Business** certified by the Department of Small Business and Supplier Diversity (SBSD)? Yes _____ No _____

If yes, certification number: _____ Certification date: _____

Instructions: *Populate the table below to show your firm's plans for utilization of small, women-owned and minority-owned business enterprises in the performance of the contract. Describe plans to utilize SWaMs businesses as part of joint ventures, partnerships, subcontractors, suppliers, etc.*

Small Business: "Small business " means a business, independently owned or operated by one or more persons who are citizens of the United States or non-citizens who are in full compliance with United States immigration law, which, together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years.

Woman-Owned Business Enterprise: A business concern which is at least 51 percent owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more women, and whose management and daily business operations are controlled by one or more of such individuals. **For purposes of the SWaM Program, all certified women-owned businesses are also a small business enterprise.**

Minority-Owned Business Enterprise: A business concern which is at least 51 percent owned by one or more minorities or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more minorities and whose management and daily business operations are controlled by one or more of such individuals. **For purposes of the SWaM Program, all certified minority-owned businesses are also a small business enterprise.**

Micro Business is a certified Small Business under the SWaM Program and has no more than twenty-five (25) employees **AND** no more than \$3 million in average annual revenue over the three-year period prior to their certification.

All small, women, and minority owned businesses must be certified by the Commonwealth of Virginia Department of Small Business and Supplier Diversity (SBSD) to be counted in the SWaM program. Certification applications are available through SBSD at 800-223-0671 in Virginia, 804-786-6585 outside Virginia, or online at <http://www.sbsd.virginia.gov/> (Customer Service).

RETURN OF THIS PAGE IS REQUIRED

ATTACHMENT B (CNT'D)
Small, Women and Minority-owned Businesses (SWaM) Utilization Plan

Procurement Name and Number: _____

Date Form Completed: _____

Listing of Sub-Contractors, to include, Small, Woman Owned and Minority Owned Businesses
for this Proposal and Subsequent Contract

Offeror / Proposer:

Firm

Address

Contact Person/No.

Sub-Contractor's Name and Address	Contact Person & Phone Number	SBSD Certification Number	Services or Materials Provided	Total Subcontractor Contract Amount (to include change orders)	Total Dollars Paid Subcontractor to date (to be submitted with request for payment from JMU)

(Form shall be submitted with proposal and if awarded, again with submission of each request for payment)

RETURN OF THIS PAGE IS REQUIRED

ATTACHMENT C



COMMONWEALTH OF VIRGINIA
STANDARD CONTRACT

Contract No. _____

This contract entered into this _____ day of _____, 20____, by _____ hereinafter called the "Contractor" and Commonwealth of Virginia, James Madison University called the "Purchasing Agency".

WITNESSETH that the Contractor and the Purchasing Agency, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

SCOPE OF CONTRACT: The Contractor shall provide the services to the Purchasing Agency as set forth in the Contract Documents.

PERIOD OF PERFORMANCE: From _____ through _____

The contract documents shall consist of:

- (1) This signed form;
- (2) The following portions of the Request for Proposals dated _____:
 - (a) The Statement of Needs,
 - (b) The General Terms and Conditions,
 - (c) The Special Terms and Conditions together with any negotiated modifications of those Special Conditions;
 - (d) List each addendum that may be issued
 - (e) Scope of Work and Technical Specifications
- (3) The Contractor's Proposal dated _____ and the following negotiated modification to the Proposal, all of which documents are incorporated herein.
 - (a) Negotiations summary dated _____.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound thereby.

CONTRACTOR:

PURCHASING AGENCY:

By: _____
(Signature)

By: _____
(Signature)

(Printed Name)

(Printed Name)

Title: _____

Title: _____

ATTACHMENT D

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

PART 1 GENERAL

1.1 DESCRIPTION

- A. The Contractor shall be responsible for providing all displays and control equipment as described.
- B. The Contractor shall be responsible for the provision and installation of all primary and secondary steel, mounting brackets/hardware, and cladding required to accommodate the new systems onto the existing structures and walls at the facility. This includes all labor, materials, equipment; tools, transportation, and project management required for a complete and fully operational system(s) on the project.
- C. Contractor shall be responsible for all power and electrical distribution to the new system(s). Contractor shall provide all secondary power connections/terminations required to power new system(s). Contractor is responsible for providing stamped electrical drawings by a licensed electrical engineer in the State of Virginia.
- D. All additional conduit and raceways required to complete a path to each display component shall be furnished and installed by Contractor. Contractor shall be responsible to furnish, install, and terminate all required cabling needed to make new system(s) complete and fully operational.
- E. A rendering package and structural drawings (Primary Display) is provided as part of this RFP. The illustrations are to be construed as conceptual and not for construction purposes. Contractor shall be responsible for final engineering of structural and electrical components required for new system(s), including professional engineering stamp by a licensed/registered engineer in the State of Virginia. All structural and electrical engineering is subject to the University review and approval. Any modifications required are the responsibility of the Contractor.
- F. Contractor is responsible for supplying a complete and fully operational system as intended by the RFP documents and any subsequent addendums.
- G. Prior to entering into a contract for the project, the Offeror is responsible for notifying the University of any equipment omissions in the RFP documents that would prevent the completion of a fully operational system. If Contractor fails to notify the University of any equipment omissions, Contractor shall assume responsibility for providing the required equipment at no additional cost to the University.
- H. Contractor shall field verify all work site conditions, including dimensions and site lines prior to submitting shop drawings.
- I. The Contractor shall be wholly responsible for any necessary logistic, staging, planning, etc. required to access and execute the work. This includes any demolition, clearing and put back necessary to access the project or to create staging or storage areas. Contractor shall return all existing conditions and improvements to a condition equal to the condition it was found upon mobilization.
- J. Contractor shall grant the University a license to use all proprietary software provided with this RFP for the life of the system.

1.2 OFFEROR QUALIFICATIONS

- A. James Madison University seeks to contract with an Offeror for the full performance of the work as described in this RFP and to obtain long-term service and support for all equipment supplied by the selected Offeror. In an effort to ensure the chosen Offeror has the long-term interests of the University in mind, the following shall be required in order to submit a proposal for this project. Failure to submit acceptable responses to all of these requirements may eliminate an Offeror from consideration. The University, in its sole discretion, shall reserve the right to waive any or all of the requirements listed below.

1. Offeror shall provide a list of a minimum of three (3) facilities (facility, contact name, title, address and current phone number) where the Offeror has provided equipment and services of equivalent brand, size and scope within the last three (3) years.
2. Offeror shall provide a minimum of one (1) facility (facility, contact name, title, address and current phone number) where the Offeror has provided equipment and services of equivalent brand, size and scope that is at least five (5) years old.
3. Offeror shall have a direct service employee or certified contractor capable of providing maintenance response within two (2) hours of a call for service.

1.3 SUBMITTAL REQUIREMENTS

B. Initial Submittals and Shop Drawings

1. Contractor shall be required to provide submittals and shop drawings to the University within fifteen (15) calendar days of date shown on award notice, acknowledged with a binding letter of intent. Contractor shall be responsible to ensure that the dimensions and specifications of each component and all systems fit within the building allowances. The University must review and approve all submittal documents prior to the start of work. Contractor shall advise the University of any discrepancy that could affect installation. If Contractor fails to notify the University of any discrepancies, Contractor shall assume responsibility for providing the required equipment or correcting such discrepancies at no additional cost to the University. The following required submittals shall be defined by guidelines established by the University and shall include but not be limited to:
 - a. Submit three sets of shop drawings, product data and samples together in one package within fifteen (15) calendar days of date shown on award notice to Contract and prior to ordering equipment.
 - b. Submit catalogue data sheets, neatly bound with title page, space for submittal stamps, and tabbed dividers between Sections. Provide a complete list of proposed equipment with reference to its corresponding specification paragraph number or equipment title in specification paragraph order. Denote all approved substitutions.
 - c. Submit fabrication shop drawings for all displays including component weight and power calculations.
 - d. Submit structural engineered drawings for all primary and secondary steel framing required for this scope of work. If primary steel structure is existing or provided by others, drawings submitted shall include attachments to primary steel structure. Structural engineered drawings shall also include method of attachment for LED displays and all other signage elements required for this scope of work. A licensed/registered engineer in the State of Virginia shall stamp all structural drawings.
 - e. Submit point-to-point wiring diagrams and typed wire lists identifying every connection. Include electronic devices such as switches, transformers and terminal blocks. Indicate locations of all components. Identify cables by type, color, and wire numbers.
 - f. Submit conduit riser diagrams showing required conduits and junction boxes along with types of quantities of cables to be contained in each conduit. Show details of weatherproofing, lightning protection and grounding, strain relief and cable support, fire stop protection, and wall penetrations through all rated partitions.
 - g. Submit rack layouts indicating the proposed arrangement of mounted equipment including power junction box location. Rack layouts shall include front and rear views.
 - h. Submit detail drawings of all custom fabricated items and approved equipment modifications. Include complete parts lists, schematic diagrams, and all dimensions required for proper assembly.

- h. LED population layout drawings shall be submitted for each backlit channel letter and/or signage element required under this scope of work. Photos, confirming LED and/or fluorescent lighting layout, shall be submitted for each backlit channel letter and/or signage element upon completion of fabrication and prior to shipping product to site.
- i. Submittal drawings shall indicate proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels.
- j. Submit a list of all lower tier subcontractors and suppliers. List shall include lower tier subcontractor's qualifications indicating performance of similar work on past projects of this type and scope.
- k. Submit a project schedule in Gantt chart format outlining equipment delivery dates and installation start and finish dates. Project schedule shall be broken down into sufficient detail (work task and duration) to permit the University to monitor installation progress on a daily basis.
- l. Copies of all required business and contractor licenses.
- m. Copies of proof of insurance.
- n. Approval of submitted items indicates only the acceptance of the manufacturer and quality. Specific requirements, arrangements, and quantities shall comply with the intent of the Contract Documents as interpreted by the University unless specifically approved in writing.
- o. Submittals that are incomplete, deviate significantly from the requirements of the Contract Documents, or contain numerous errors will be returned without review for rework and re-submittal, and may result in back charges to the contractor.

C. Contract Closeout Submittal

1. When the installation is substantially complete including the Testing Reports in Part 3 of this Section, Contractor shall submit two (2) complete initial hard copy sets of contract closeout submittals to the University for review. After review and approval of initial set, the University will return one (1) initial hard copy to Contractor with comments for updating. Contractor shall provide four (4) final sets of closeout submittals to the University and one (1) electronic copy in PDF format. Closeout submittals shall include, but not be limited to:
 - a. Project Record Drawings (As-Built Drawings) including final screen fabrication drawings, secondary steel structural drawings, electrical drawings, system block diagrams, rack layout drawings, custom fabricated signage drawings (final fabrication version), and LED population layout drawings for custom fabricated signage.
 - b. A list of all equipment provided and its location within the facility. List shall include manufacturer name, model identifier, serial number, and any other pertinent information needed to obtain service, maintenance, and/or replacement.
 - c. A list of all Subcontractors who performed work for Contractor during installation. List shall include company name, physical company address, phone number, and contact person(s).
 - d. Test reports from an independent testing & inspection agency certifying that bolted and/or welded connections for primary and/or secondary structural steel meet the minimum requirements of the engineered structural drawings, the governing building code, or as required by the building official; whichever is more restrictive.
 - e. All testing reports as specified in Section 3.7 – Testing and Acceptance.
 - f. Test reports for all new fiber optic cable installed under this scope of work. Test reports shall indicate end to end signal loss does not exceed a maximum dB loss per Section 3.4.N and/or 3.4.O.
 - g. Operation & Maintenance Manual

Upon substantial completion and prior to on-site training with the University, Contractor shall provide four (4) final Operation & Maintenance Manuals (O&M Manuals). O&M Manuals shall have tab dividers and shall be logically organized to provide easy access to information without the need to research through entire manual. All documents provided in the O&M Manual shall be written in English and shall provide sufficient detail as to be understood by an individual with no knowledge of LED displays or the associated control equipment and/or operating systems. Contents of the O&M Manual shall include, but not be limited to:

- 1) Table of Contents
- 2) Description / overview of system(s) including key features and operational procedures.
- 3) Full start up procedure for all control room rack equipment and LED display equipment written under the assumption that all equipment was in full powered off mode.
- 4) Full shutdown procedure for all control room rack equipment and LED display equipment written under the assumption that the facility is in an extended power failure situation.
- 5) Procedure for switching to back up LED display processors and back up graphics/animation servers.
- 6) Troubleshooting procedures for all LED displays, LED display processors, graphics/animation servers, scoring systems, and all related equipment provided by Contractor. Troubleshooting procedures shall include demonstration photos and/or diagrams as required.
- 7) Maintenance procedures for all LED displays, LED display processors, graphics/animation servers, scoring systems, and all related equipment provided by Contractor. Maintenance procedures shall include demonstration photos and/or diagrams as required. Contractor shall indicate whether maintenance procedures should be performed monthly, bi-annually, or annually.
- 8) Owner's Manuals for all third party and/or "off-the-shelf" type equipment provided by Contractor: e.g., KVM's, fiber modems, network switches/routers, and UPS battery backups.
- 9) All third-party equipment and/or "off-the-shelf" equipment warranties and a notarized System Warranty.

1.4 EQUIPMENT GENERAL SPECIFICATIONS

- A. All equipment and materials, except University furnished, shall be new and the latest version at the time of proposal and shall conform to applicable UL, ULC, CSA or ANSI provisions. Re-manufactured or "B" stock equipment shall not be accepted without prior written consent from the University. Evidence of unauthorized re-manufactured or "B" stock equipment on the project site shall be deemed evidence of the contractor's failure to perform the work. Contractor shall take care during installation to prevent scratches, dents, chips or disfiguration of equipment and materials supplied. All damaged equipment and/or materials shall be repaired or replaced at the University's discretion. Contractor shall perform either option selected by the University at no additional cost to the University.
- B. Unless specified differently on the AJP Drawings (Attachment E), back lit channel letters and back lit fixed ad panels shall be illuminated as indicated below, which are the minimum acceptable product specifications. Contractor shall be responsible to ensure that the output of lighting is of sufficient lumens to clearly and successfully illuminate signage elements when used in the facility under event lighting conditions. Hot spots or dark spots shall not be acceptable. Consideration shall be given to match the Kelvin temperature when various combinations of illumination methods are used for different signage elements (i.e. LED illumination mixed with Fluorescent illumination).
 1. LED Illumination
 - a. LED's shall be Sloan LED V Series or approved equal. LED's shall be placed at a maximum of three (3) inches on center throughout the letter stroke or fixed ad cabinet.
 - b. Multiple rows of LED's shall start no more than three (3) inches from returns.
 - c. Electrical connections and/or electrical boxes shall not be visible to public view.

- C. Cabinets for channel letters and back lit fixed ad panels shall appear from the exterior to be seamless construction. Seams shall be filled and sanded smooth prior to application of final finish color. Visible fasteners or mounting brackets shall not be acceptable. Light leaks around cabinet or between cabinet and letter face or fixed ad face shall not be acceptable.
- D. All cabling [power and data] is to be labeled at each end of the cable with a description in English OR with a reference to a wire designation on a wiring diagram. This includes all cables internal to the displays, all cables between displays and control room, and all cables internal to the control room. These diagrams must be part of the Project documentation submitted to the University at time of acceptance.
- E. Each device shall meet all of its published manufacturer's specifications. Verify performance as required.
- F. Install all rack mounted equipment with Middle Atlantic Products HP Series truss head screws or approved equal.
- G. Some rack-mounted equipment may require shaft locks, security covers, or removal of knobs; provide and install during Acceptance Testing.
- H. Provide engraved self-adhesive phenolic labels at the front and rear of all rack-mounted signal processing equipment. Mount labels on the equipment chassis and attach in a neat and permanent manner. Embossed label shall not be accepted. Label equipment with schematic enumeration reference, and with descriptive information regarding its function or area it is serving. Similarly, provide engraved labels at the rear only of equipment mounted in furniture consoles.
- I. All engraving shall be 1/8" block lettering unless noted otherwise. On dark panels or pushbuttons, letters shall be white. Letters shall be black on stainless steel, brushed natural aluminum plates or light-colored pushbuttons.
- J. Per IEC-268 standard, all XLR connectors not mounted on equipment shall be wired pin 2 hot (high), pin 3 low, and pin 1 screen (shield).
- K. Mounting Hardware exposed to the weather shall be aluminum, brass epoxy painted galvanized steel or stainless steel. Apply corrosion inhibitor to all threaded fittings.
- L. Equipment Racks shall be Middle Atlantic Products model MRK-4436, or approved equal, with accessories as noted below. Quantity of racks shall be as required to house all equipment supplied under this scope of work. Any unused rack mounting spaces shall have blank panels to full enclose the rack assembly. Multiple racks shall be anchored together using appropriate ganging hardware. Standard solid rear door shall be replaced with Middle Atlantic Products model MW-VRD-44 vented rear door.
 - 1. Provide two (2) side panels per individual stand-alone rack or series of racks ganged together. The intent is to have an enclosed rack system. A single stand-alone rack would have two (2) side panels and a series of three (3) racks ganged together would also have two (2) side panels. Side panels shall be Middle Atlantic Products model SPN-44-36 or approved equal.
 - 2. Provide Middle Atlantic Products model MW-4QFT-FC integrated fan top, or approved equal, for each rack. Fan shall be thermostatically controlled to ensure in-rack temperatures of less than 100 degrees Fahrenheit.
 - 3. Provide two (2) Middle Atlantic Products model LT-GN-PL gooseneck work light for each rack required for this scope of work.
 - 4. Provide Middle Atlantic Products model PDT-2X1020T, or approved equal, in rack vertical power strip. Power strip shall have enough receptacles to accommodate all equipment housed in the associated rack with a minimum of two spare receptacles per rack.
- M. Any rear mounted rack equipment shall be placed so the equipment does not block access to the back of front mounted equipment.
- N. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment. Contractor shall install grommets around cut-outs and knock-outs where conduit or chase nipples are not installed.

- O. Equipment Racks shall have a ground buss installed in each rack. Ground buss shall be insulated from the rack. Attach equipment rack to ground buss at one point using #4 insulated copper wire. Ground any equipment chassis without a three-conductor power cord directly to the buss bar using #12 insulated copper wire. Tie each and every power receptacle ground contact to the buss bar using #12 insulated copper wire. Interconnect signal cables shall be routed from junction boxes through metallic flexible conduit(s) (1" to 2" diameter) as appropriate. Flexible conduit shall be insulated from racks by approved insulating bushings.
- P. Power wiring and signal/data wiring shall be installed on opposite sides of rack. Contractor may determine which side is using for power and which side for signal. Method shall be kept the same for entire installation, if multiple racks are required. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment.

1.5 QUALITY ASSURANCE

- A. All requirements of the latest published editions of the following standards shall apply, unless otherwise noted. In the event of conflict between cited or referenced standards, the more stringent shall govern.
 - 1. National Electric Code (NEC).
 - 2. National Electrical Manufacturers Association (NEMA)
 - 3. Underwriters Laboratories (UL)
 - 4. Federal Communications Commission (F.C.C.) Rules and Regulations, Part 76.
 - 5. Society of Cable Television Engineers (S.C.T.E.)
 - 6. Society of Motion Picture and Television Engineers (S.M.P.T.E.)
 - 7. National Cable Television Association (N.C.T.A)
 - 8. Electronic Industries Association (E.I.A.)
 - 9. Telecommunications Industries Association (T.I.A.)
 - 10. Electronic Industries Association (E.I.A.)
- B. Review all architectural, civil, structural, mechanical, electrical, and other project documents relative to this work.
- C. Verify all dimensions and site conditions prior to starting work.
- D. Coordinate the specified work with all other trades.
- E. Maintain a competent supervisor and supporting technical personnel, acceptable to the University during the entire installation. Change of supervisor during the project shall not be permitted without prior written approval from the University.
- F. Provide all items not indicated on the drawings or mentioned in the specifications that are necessary, required or appropriate for this work to realize a complete and fully operational system that performs in stable and safe manner.
- G. Review project documentation and continuously make known any conflicts discovered and provide all items necessary to complete this work to the satisfaction of the University without additional expense. In all cases where a device or item or equipment is referred to in singular number or without quantity, each such reference shall apply to as many such devices or items as are required to complete the work.
- H. Provide additional support or positioning members as required for the proper installation and operation of equipment, materials and devices provided as part of this work as approved by the University, without additional cost to the University.
- I. Regularly examine all construction, and the work of others, which may affect Contractors work to ensure proper conditions exist at site for the equipment and devices before their manufacture, fabrication or installation. Contractor shall be responsible for the proper fitting of the systems, equipment, materials, and devices provided as part of this work.

- J. Promptly notify the University in writing of any difficulties that may prevent proper coordination or timely completion of this work. Failure to do so shall constitute acceptance of construction as suitable in all ways to receive this work, except for defects that may develop in the work of others after its execution.
- K. After installation, submit photographs showing cable entries and terminations within equipment racks, enclosures and pedestals at the job site.

1.6 WARRANTY AND SERVICE

- A. Contractor shall warrant labor and materials for twenty-four (24) months following the date of Final Acceptance.
- B. During the warranty period the system shall be free of defects and deficiencies and conform to the drawings and specifications with respect to the quality, function, and characteristics stated.
- C. Contractor shall repair or replace defects that occur in labor or materials within the warranty period. If repair is affected using the University's spare parts allotment, Contractor shall replenish all parts used to keep the University's inventory at the amount required by the contract.
- D. On-site labor shall be included during the warranty period for any work beyond simple component replacement. Simple component replacement shall be defined as lighting unit or power supply replacement or the replacement of an internal display signal cable that does not require tools to perform the cable replacement.
- E. Failed parts shall be returned to the Contractor for repair at a service facility located in North America. Contractor shall identify the location of its service facility in the documentation provided when submitting a proposal for this work.
- F. The Contractor shall replace failed parts that cannot be repaired.
- G. Upon receipt of a failed part, Contractor shall return a repaired or replacement part to the University within fifteen (15) business days from receipt of failed part.
- H. Contractor shall supply at least one local service employee or local authorized service agent for servicing and repair of all equipment during the warranty period. Local service employee or local authorized service agent shall be located within 150 miles of the University's facility.
- I. The local service employee or local authorized service agent shall be the entity responsible for providing the following emergency response availability:
 - 1. Telephone service assistance and technical support from 8am to 11pm local time at the University's facility, 7-days per week.
 - 2. Answer all service calls and requests for information within one (1) hour during the contract period.
 - 3. A parts exchange program, including same day shipment of exchange parts. The manufacturer shall keep a ready stock of key assemblies available to ship out upon notice of a parts failure if part is not available in spare parts inventory at the University's facility.
 - 4. The advance replacement should contain all of the shipping information and packaging necessary to return the defective part or assembly back to Contractor at no cost to the University.
- J. Warranty shall cover all equipment, including processors, controllers, operating systems, and software.
- K. Warranty shall include two annual on-site system check-ups by a qualified technician who is a full-time employee of the Contractor. Visit to occur approximately 2-3 weeks prior to the start of the second and third seasons or as determined by the University (i.e. start of Basketball Regular Season).
- L. Check-up shall include all regular maintenance; including filter changes, a complete inspection of all systems, brightness level readings of LED displays, parts replacement where required and a complete written report of all findings.
- M. All extended warranty pricing requested in this RFP shall include the same requirements as stated in this section.

- N. In addition to the base warranty, Contractor shall provide a guarantee against systemic parts failures for a period of seven years from final acceptance. A systemic parts failure is defined as a failure of more than 5% of a particular part or component in a display, over a 12-month period. If it is determined that a systemic parts failure has occurred, Contractor shall be responsible for all costs to remedy the problem to the satisfaction of the University.
- O. Furthermore, if a particular system problem that resolves without a repair, presents itself in more than two (2) consecutive events, Contractor shall be responsible for providing on-site event support as well as system diagnosis, until the problem is identified and resolved. Some examples of this would be a signal flash, flickering, module(s) outage.

1.7 SPARE PARTS

- A. Contractor shall supply a spare parts inventory containing 2% spare lighting units, 2% spare power supplies, and a minimum of one (1) of every other critical component including fiber modems. Spare parts inventory shall be based on quantity of components used to manufacture the display(s). Contractor shall provide proposed spare parts inventory as part of the proposal submission.
- B. At the time of final sign-off, Contractor shall supply the specified spare parts inventory regardless of spare parts used during initial “shake out”, “burn in” and/or testing of newly installed displays.
- C. Manufacturer of the LED system components shall continue to make all parts necessary for the continued functioning of the system for a minimum of seven (7) years after acceptance of this project. Furthermore, upon end of life of any component used in the LED displays, that is not replaced by a “backwards compatible” component, Manufacturer shall notify the University of end of life status being given to components of this system, and shall give the University an opportunity to buy spare parts from stock or a last production run, at then commercially viable prices.

END OF PART 1 GENERAL

PART 2 PRODUCTS

2.1 CENTER HUNG VIDEO DISPLAYS

- A. Quantity: Four (4) Indoor Video Displays
- B. Pixel Resolution: 6mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED's will be accepted.
- D. Minimum Active Area of Displays: 11.9' tall by 19.3' wide.
- E. Minimum Resolution: 608 x 992 based on maximum pixel pitch of 6mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display's intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the front.
- O. Pixel to Pixel Variation
 - 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 - 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 - 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 - 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.
 - 2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 - 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 - 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- S. Minimum of a 140° ($\pm 70^\circ$) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

- T. Minimum of a 140° (±70°) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction “on”, at stated angle maximum.

2.2 ALTERNATE 1: INCREASE RESOLUTION CENTER HUNG DISPLAY

- A. Quantity: Four (4) Indoor Video Displays
- B. Pixel Resolution: 4mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED’s will be accepted.
- D. Minimum Active Area of Displays: 13.9’ tall by 19.5’ wide.
- E. Minimum Resolution: 1056 X 1488 based on maximum pixel pitch of 4mm.

2.3 CENTER HUNG HOIST

- A. Provide and install two (2) Self Climbing Vortek MD SB-8012-2 Hoists – 32,000 lb. Total Lift Capacity/24,800 lb. Live Load. Reeving 2:1.
- B. 6 FPM/460VAC/(4) 3/8" Dyform 6 Cables each/Base Mounting /5 HP each/65’-0 Maximum Travel.
- C. ETC Dual Sync Scoreboard Control System with MCC with local control and remote control pendant. Both with dual digital height display read outs/hold to run up/down push bottoms/E-stop/keys witch/ 4 preset capacity with soft start/stop and leveling functionality.
- D. Provide and install one (1) high voltage junction box and one (1) low voltage junction box – both located at roof steel.
- E. Provide and install following features:
 - 1. Safety horn system with tilt switch sensor.
 - 2. Safety beacon system.
 - 3. Remote Pendant plug-in station.
 - 4. Blocks – four (4) dual sheave snatch blocks.

2.4 PRIMARY LED DISPLAY – PROCESSING AND CONTROLS

- A. Video screen control system must provide the ability to manage: brightness (multi-level), video input, image position: size and scale, adjustable gamma correction, remote power function (power on/off), color, color temperature, contrast and sharpness.
- B. Processing to allow for electronic color and brightness calibration - block to block and pixel to pixel.
- C. The processor shall support the following inputs: HD-SDI video in either 720p or 1080i, SD-SDI (480p) and SDI 16x9 anamorphic signal, and DVI video.
- D. Contractor is responsible for providing all required components, racks and wiring necessary to manage and control the video display from a location outside of the display housing.
- E. System architecture must allow for 100% processing and control redundancy. Back up units shall be installed in the equipment racks and shall be hot swappable.

2.5 PRIMARY LED DISPLAY – OPERATING SYSTEM

- A. Provide a fully functional operating system capable of CG, exposure time tracking, and game operation. Systems must be capable of playing back industry standard still and animation file formats. It is understood that different operating control systems have preferred file formats. File conversion is acceptable.
- B. The system must be capable of accepting a serial feed from the new scoring controller and any and all 3rd party stats and sport ticker feeds, including captioning and social media as required.
- C. Image playback is to be stutter-free for both static and animated graphics.

- D. Operating system is to be housed in the Scoreboard Control Room.
- E. Contractor is responsible for providing all required components, racks and wiring necessary to manage and control the LED display from a location outside of the display housing.
- F. System architecture must allow for 100% processing and control redundancy. Back up units shall be installed in the equipment racks and shall be hot swappable.

2.6 CENTER HUNG LOWER LED RING

- A. Quantity: One (1) Indoor Video Displays
- B. Pixel Resolution: 10mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED's will be accepted.
- D. Minimum Active Area of Displays: 2.6' tall by 81' wide.
- E. Minimum Resolution: 80 x 2480 based on maximum pixel pitch of 10mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display's intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the front.
- O. Pixel to Pixel Variation
 - 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 - 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 - 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 - 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.
 - 2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 - 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 - 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.

- R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- S. Minimum of a 140° (±70°) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction “on”, at stated angle maximum.
- T. Minimum of a 140° (±70°) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction “on”, at stated angle maximum.

2.7 ALTERNATE 2: INCREASE RESOLUTION LED RING

- A. Quantity: One (1) Indoor Video Displays
- B. Pixel Resolution: 6mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED’s will be accepted.
- D. Minimum Active Area of Displays: 2.6’ tall by 81.2’ wide.
- E. Minimum Resolution: 128 x 4160 based on maximum pixel pitch of 6mm.

2.8 RIBBON BOARDS

- A. Quantity: One (1) Indoor Video Display
- B. Pixel Resolution: 10mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED’s will be accepted.
- D. Minimum Active Area of Displays: 2’ tall by 542’ wide.
- E. Minimum Resolution: 64 x 16544 based on maximum pixel pitch of 10mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction “on”) at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display’s intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the top.
- O. Pixel to Pixel Variation
 - 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 - 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 - 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 - 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.

2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- S. Minimum of a 140° ($\pm 70^\circ$) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
- T. Minimum of a 140° ($\pm 70^\circ$) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

2.9 ALTERNATE 3: CORNER LED DISPLAYS (IN LIEU OF FIXED DIGIT)

- A. Quantity: Four (4) Indoor Video Displays
- B. Pixel Resolution: 10mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED's will be accepted.
- D. Minimum Active Area of Displays: 6.2' tall by 24.2' wide.
- E. Minimum Resolution: 192 x 736 based on maximum pixel pitch of 10mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display's intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the rear.
- O. Pixel to Pixel Variation
 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.

2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- S. Minimum of a 140° ($\pm 70^\circ$) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
- T. Minimum of a 140° ($\pm 70^\circ$) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

2.10 EVENT LEVEL LED VOMITORY DISPLAYS

- A. Quantity: Two (2) Indoor Video Displays
- B. Pixel Resolution: 10mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED's will be accepted.
- D. Minimum Active Area of Displays: One at 2' tall by 17' wide and One at 2' tall by 20' wide.
- E. Minimum Resolution: 64 x 528 and 64 x 608 based on maximum pixel pitch of 10mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display's intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the rear.
- O. Pixel to Pixel Variation
 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.

2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- S. Minimum of a 140° ($\pm 70^\circ$) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
- T. Minimum of a 140° ($\pm 70^\circ$) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

2.11 LED COURSIDE DISPLAY 1

- A. Quantity: One (1) Indoor Video Displays
- B. Pixel Resolution: 6mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED's will be accepted.
- D. Minimum Active Area of Displays: 2.4' tall by 40' wide.
- E. Minimum Resolution: 128 X 2048 based on maximum pixel pitch of 6mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display's intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the front.
- O. Pixel to Pixel Variation
 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.

2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- S. Minimum of a 140° ($\pm 70^\circ$) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
- T. Minimum of a 140° ($\pm 70^\circ$) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

2.12 LED COURTSIDE DISPLAY 2

- A. Quantity: Two (2) Indoor Video Displays
- B. Pixel Resolution: 6mm physical pixel resolution.
- C. LED Supplier: Only Nichia or Cree LED's will be accepted.
- D. Minimum Active Area of Displays: 2.4' tall by 12' wide.
- E. Minimum Resolution: 128 X 608 based on maximum pixel pitch of 6mm.
- F. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- G. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- H. Display's intensity shall be adjustable to a minimum of 256 levels.
- I. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- J. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- K. Refresh rate shall be greater than 2,000+Hz.
- L. Video frame rate at or greater than 60 frames per second.
- M. Contrast ratio shall be greater than 1200:1.
- N. Service accessibility for all components of the displays shall be from the front.
- O. Pixel to Pixel Variation
 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
 3. 95% or more of the pixels within each module must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the module.
- P. Module to Module Variation
 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.

2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
 3. 100% of the modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.006 of the mean chromaticity value for the screen.
 4. 100% of the adjacent modules in a screen must have a chromaticity value, $\Delta u'v'$, within +/- 0.003 of each other.
- Q. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
 - R. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
 - S. Minimum of a 140° ($\pm 70^\circ$) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
 - T. Minimum of a 140° ($\pm 70^\circ$) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

2.13 COURTSIDE DISPLAY TABLE SPECIFICATIONS

- A. Scorer's table to include the following:
- B. Upholstery quality vinyl covered padding on ends and top in a color to be determined by the University. Vinyl shall be "Naugahyde" product or equal as approved.
- C. Total of six (6) Tables: Four (4) tables of 10' length and two (2) tables of 12' length.
- D. Sections to be configured to allow connections for seamless display image.
- E. Provide electrical and signal connections to "daisy chain" sections together.
- F. Each table sections to be on locking casters and leveling feet.
- G. Provide 34" maximum table height.
- H. Provide 24" maximum counter depth.
- I. Provide maximum of 38" total depth – display to back edge of table
- J. Specific sizes may vary depending on location.
- K. Provide 4" x 4" cable trough under table top with access holes every 4' minimum
- L. Provide AC power connections every 12" and data connections every 24" along entire length of table and interconnections for service to connect between table sections.
- M. Provide trough for installation of the University provided temporary cabling i.e. data, phone, distributed TV.
- N. Protective Vinyl Covers for each table for use when tables are in storage
- O. Plug strip Edison outlets on top of table should have 15a capacity per table.
- P. Power to each table must have enough capacity to provide 15a 110v service to table top plug strip. Each table top plug strip should have a dedicated 15a breaker.
- Q. The University will supply 3 phase 208v 5 wire power at the appropriate amperage. Table should have a Male inlet connector rated at the appropriate amperage for power input. Coordinate power needs and connector types with what the University has available to provide.

2.14 CORNER, RIBBON, VOMITORY, COURTSIDE AND MARQUEE PROCESSING AND CONTROLS

- A. Video screen control system must provide the ability to manage: brightness (multi-level), video input, image position: size and scale, adjustable gamma correction, remote power function (power on/off), color, color temperature, contrast and sharpness.

- B. Processing to allow for electronic color and brightness calibration - block to block and pixel to pixel.
- C. The processor shall support the following inputs: HD-SDI video in either 720p or 1080i, SD-SDI (480p) and SDI 16x9 anamorphic signal, and DVI video.
- D. Contractor is responsible for providing all required components, racks and wiring necessary to manage and control the video display from a location outside of the display housing.
- E. System architecture must allow for 100% processing and control redundancy. Back up units shall be installed in the equipment racks and shall be hot swappable.

2.15 SCORING SYSTEM: PROVIDE AND INSTALL THE FOLLOWING

- A. Four (4) corner installed fixed digit displays 6.5'H x 24'W with white digits. Sizes of digits and required information are listed in the RFP rendering package, Attachment E.
- B. One (1) fixed digit display (practice court) 5'H x 10'W with white digits. Score and clock digits shall be 13" tall and include period and possession indicators.
- C. Shot clocks for each goal (Event court and practice court) plus one spare set (total of 5 sets). Shot clocks shall be NBA style double sided transparent (see thru) style clocks and shall display game time and shot time. A set shall include two shot clocks on each goal. Large clock mounted parallel above the backboard glass shall be a maximum of 32.4" high by 31.7" wide by 4" deep and shall have 13" tall red LED's for shot clock and 7" yellow LED's for game time. Small clock mounted on the backstop structure perpendicular to the backboard glass shall be a maximum of 22" high by 22" wide by 3.5" deep and shall have 7" tall red LED's for shot clock and 5" yellow LED's for game time. Both clocks shall include red LED strips around the perimeter that shall illuminate when time has expired. Clocks shall have camera mounting brackets.
- D. New shot clock brackets for existing goals. Brackets for large shot clock shall be "fold down" style to permit storage of goals in existing location used by the University.
- E. Two sets plus one spare set of red LED light strips around the perimeter of each backboard glass. The current LED light strips may be re-used if compatible with new scoring controllers.
- F. Twelve (12) Locker Room Clocks – minimum 4 inch tall red fixed LED digits with a maximum overall cabinet size of 1'-8" wide by 9" tall by 4" deep. Locations – 4 Visiting Team Locker Rooms, Officials Locker Room, Women's and Men's Locker Rooms, Men and Women's Staff Locker Rooms; Courtside Lounge, Press Room, Multipurpose Room.
- G. Install two (2) horns on Center Hung display.
- H. Two (2) Scoreboard Controllers – (1 primary and 1 backup). Must be capable of scoring for Basketball and Volleyball.
- I. One (1) Stats computer to interface with Stats crew for player stat displays.
- J. Two (2) Data Distribution Panels. One (1) located in equipment rack in scoreboard control room and one (1) located at truck dock.

2.16 LED DISPLAY SIGNAGE AND AESTHETICS

- A. Provide and Install custom underbelly logo as specified and depicted in the rendering package.
- B. Provide and Install "ATLANTIC UNION BANK" channel letters and footer signage as specified and depicted in the rendering package.

2.17 ANIMATION PACKAGE

Provide twenty (20) custom animations with a minimum of 50% 3-D animations for all displays listed in this RFP.

EXECUTION

3.1 SCOPE OF WORK

- A. The following outlines the turnkey delivery and installation responsibilities that define the project scope of work. Any and all work outlined in this section is the responsibility of the Contractor unless otherwise noted. Contractor is required to provide all labor, materials, tools, supervision and equipment to perform the following:
1. Provide and install all equipment and displays listed in Part 2 – Products, including any and all equipment not specifically listed that is required to provide a completely functional system.
 2. Provide and install LED video displays, signage, and aesthetics as depicted and specified in rendering package.
 3. The Contractor shall be responsible for the provision and installation of all primary and secondary steel, mounting brackets/hardware, and cladding required to accommodate the new system onto existing structures and concrete walls of the arena. This includes all labor, materials, equipment; tools, transportation, and project management required for a complete and fully operational system(s) on the project. Contractor shall provide final structural /attachment drawings per Section 3.2.
 4. Contractor shall be responsible for all power and electrical distribution to the new system(s). Contractor shall provide all secondary power connections/terminations required to power new system(s). Contractor is responsible for providing stamped electrical drawings by a licensed electrical engineer in the State of Virginia.
 5. Contractor to provide new signal cable to each display and may re-use existing conduit where available. Contractor is responsible for installing new conduit if required due to existing conduit being damaged or not available.
 6. Provide required electrical and data cable: connect all equipment with power, signal and control wiring.
 7. Coordinate with the University regarding placement of new equipment rack(s) and electrical components.
 8. Provide integration with video replay system.
 9. Provide all required permits and licenses.
 10. Provide on-site installation supervisor per Section 1.5.E.
 11. Deliver all Equipment to site and convey to appropriate locations within site as directed by the University.
 12. Store all Equipment in a safe and secure manner until installed, or otherwise directed by the University.

3.2 ENGINEERING

- A. The Contractor must submit drawings and calculations stamped by a professional engineer who shall be licensed/registered in the State of Virginia.
- B. Contractor is responsible for taking all seismic, wind and environmental considerations into account and making structural provisions for any such requirements.
- C. The University must approve all drawings in writing prior to the fabrication and installation of any equipment.
- D. Engineered drawings are to include both structural and electrical.
- E. The Contractor is solely responsible for verification the integrity of all engineering calculations. Contractor is responsible for verification of all information provided or implied.

3.3 STRUCTURAL CONSIDERATIONS

- A. Contractor is responsible to design, engineer, build, deliver, install, integrate and commission complete turnkey displays as specified with all required structure needed to support all display components.
- B. Flashing and any other related equipment shall be the responsibility of the Contractor to furnish and install.
- C. Contractor is responsible for design and erection of all materials related to the new equipment.
- D. Sub-structure is to be fabricated using structural steel and/or aluminum (optional). Contractor shall provide necessary protective separation when connecting dissimilar metals to prevent galvanic corrosion.
- E. Bolted and/or field welded connections shall be subject to special inspection by an independent testing & inspection agency certifying that bolted and/or welded connections meet the minimum requirements of the engineered structural drawings, the governing building code, or as required by the building official; whichever is more restrictive. Inspections shall take place prior to painting any connection.
- F. Documentation shall be provided to the University verifying acceptable results from all special inspections. All items failing inspection shall be repaired or replaced and re-inspected at no additional cost to the University.
- G. All components to be painted and otherwise finished for exterior service conditions shall be warranted to be free of rust or other defects for a period of ten years.
- H. All welders must be certified, and certificates must be on-site and available for inspection as requested.
- I. To minimize fading or oxidation, all finishes must be primed and coated. All areas of the primary and secondary support structure must be primed and painted to match.
- J. Secondary structure, ribbon board and signage shall be detailed to allow for expansion at contraction at the expansion joints.
- K. Damage to paint to the primary structure during the installation of secondary structure, ribbon board and signage install shall be touched up by Contractor

3.4 ELECTRICAL AND DATA

- A. The electrical design and installation of all branch circuits by the Contractor shall comply with NEC, provincial and local codes, as well as University regulations and guidelines.
- B. Contractor shall provide remote power on/off as noted in Part 2 Products. Contractor shall provide sufficient number of switches to control all displays and signage elements. Switches to be mounted into equipment racks along with other equipment provided by Contractor. Configuration of switches shall be submitted with shop drawings to be approved by the University.
- C. The Contractor shall provide electrical and data one-line diagrams.
- D. Electrical design and engineering must be reviewed and approved by the University prior to any electrical work by the Contractor.
- E. The Contractor shall be responsible for power distribution from the demarcation points noted on the included electrical drawing. Any additional electrical components required for a complete and fully operational system but not shown on the electrical drawings shall be the responsibility of the Contractor.
- F. Contractor to provide a 4" x 4" J-Box at top/bottom of each rack with power circuit cabling terminating in 24" pig tails. Label each outlet as to which AC circuit is feeding it and provide the same information in the circuit breaker panel. The University will provide all AC power and conduit to the equipment racks and will terminate AC power circuits within the J-Boxes.
- G. Contractor is responsible for all conduit and raceways as required for signal/control cable distribution. Contractor may utilize existing conduit subject to University approval.

- H. The Contractor shall be responsible for termination and final connect of power to all displays. All secondary electrical panels must be clearly marked with names of the branch circuits controlled by each breaker to aid in troubleshooting or isolating problems. All electrical services, disconnects, and breaker panels are to be labeled with what they control and where they are fed from.
- I. Contractor shall not use wire nuts or electrical tape for any power or signal connection or any part of the work including internal LED display power jumpers or power connections to signage elements. All connections shall use a proper terminal block and spade terminal, or terminal block and direct connection as required. Covers shall be provided for all high-power terminal blocks to prevent electrical shock.
- J. The University will provide power to the disconnect switch will use rigid metal conduit and wire. The use of SO cord or rubber jacket type power cables typically used on transportable installations or used on the installation of pitch side displays shall not be permit for permanent installations. Strain relief on all connectors shall be per manufactures recommendations. Contractor shall submit manufacturers strain relief recommendations for all connectors during the submittal process.
- K. The Contractor shall be responsible for providing stamped electrical drawings. A licensed/registered engineer in the State of Virginia where this project is located shall stamp all electrical drawings.
- L. Any equipment not certified as required in Section 1.4.A. shall require on-site certification by a listed testing agency. All cost associated with obtaining on-site certification shall be the responsibility of the Contractor. Written proof of certification or equivalent shall be required prior to any work being performed on-site.
- M. Contractor shall provide twelve (12) spare strands of fiber in addition to the total amount of fiber that is required to provide video signal and/or data communication to LED displays installed by Contractor. All fiber shall be terminated and landed in an appropriate fiber patch panel. All new fiber supplied by Contractor shall be tested and shall not exceed maximum allowable dB loss per Section 3.4.N and/or Section 3.4.O.
- N. Multi-mode fiber tested shall not have a signal dB loss greater than 0.1dB per 100 feet (30m) for 850nm fiber or a loss greater than 0.1 dB per 300 feet (100m) for 1300nm fiber.
- O. Single-mode fiber tested shall not have a signal dB loss greater than 0.1dB per 600 feet (200m) for 1310nm fiber or a loss greater than 0.1 dB per 750 feet (250m) for 1550nm fiber.
- P. Contractor to provide all required fiber transmitters and receivers (including amplifiers where required). Contractor shall be responsible to terminate and perform final connection of all cables. Cables shall be routed from the specified control locations to the display components per Contractor's diagram once the University has approved diagram.

3.5 AESTHETIC CONSIDERATIONS

- A. At the time of the release of this RFP the University is still developing certain finishes and aesthetic design elements for consideration. Contractor shall assume premium finishes on all elements not yet defined.
- B. Prior to contract award, the Contractor must provide a comprehensive outline of all intended flashing and finish details for University approval. Failure to submit these details prior to contract award shall make Contractor responsible for all flashing and finishes as required by the University at no additional cost to the University.
- C. No exposed bolts, inverted U channels, or unfinished edges on LED displays or signage elements shall be permitted on any surface with public view. Any part of the secondary steel frame exposed to public view shall be covered with flashing to match the edge of the LED display.
- D. Unless specified differently on the AJP RFP Drawings (Attachment E), the following shall serve as a minimum standard for products and finishes. Contractor shall be responsible to ensure that the material thickness provided is sufficient to prevent warping or "oil canning" on the span or sections of material installed.

1. Metals
 - a. + .040" aluminum on internal baffling
 - b. + .090" aluminum on flashing
 - c. + .125" aluminum on any routed or primary surface
 - d. + 12ga/2.6mm stainless steel (visible)
2. Plastics
 - a. + .117" thickness on thermoformed polycarbonates
 - b. + .177" thickness on flat polycarbonates
 - c. + .125" thickness on flat acrylics
3. Finishes
 - a. + Approved Automotive Grade Enamels
 - b. + ASTM D3451-06 compliant Powder Coating
4. Vinyl Films
 - a. + 3M, Avery, Oracal or other as approved.
 - b. + 9oz weight for any outdoor banner (UV coated)
- E. The Contractor shall not visibly display its trademarks or insignia on any of the Equipment or structural elements.

3.6 TRAINING

- A. The Contractor at its own expense shall provide designated University employees' operator and maintenance training.
- B. Training shall be performed at the site by a qualified technician and shall occur either during installation of the equipment or immediately thereafter. O&M Manuals per Section 1.3.C shall be provided to University prior to training.
- C. The training shall cover the operation, routine maintenance and troubleshooting of the displays and control equipment.
- D. Training shall consist of at least 24 hours (over the course of 3-5 days) of instruction.
- E. Contractor shall be required to have a control systems operator and LED technician on-site for the first event and continue to be on-site for three (3) consecutive problem free events at the facility, events to be selected by the University. "Problem-free" constitutes an event where the video and scoring displays, control system, and any other components installed by the Contractor are without failure during an event. Each successful event shall need to be signed off by the University until three (3) consecutive events are achieved.
- F. Warranty period will commence at conclusion of the third consecutive successful event.

3.7 TESTING AND ACCEPTANCE

- A. Contractor must demonstrate the full capabilities of the provided systems and prove performance meets contractual specifications.
- B. Confirmation shall be required of, but not limited to the following functions: operation of each system component, including back-up systems, control functionality, integration with existing systems, diagnostic capabilities, screen brightness, color temperature and viewing angles.
- C. Contractor must provide all necessary testing equipment for acceptance.
- D. Upon notice from the Contractor of substantial completion and at a time to be mutually agreed upon, the Contractor shall arrange for the testing of all operations of the systems comprised in scope of work at the time of substantial completion.

- E. The following items must be completed and signed off by an appropriate University official before the University will deem the system "Accepted."
1. LED Screens - Brightness and color uniformity shall be demonstrated and must meet the specification described. If the demonstration exhibits the display in noncompliance with the specifications, it will be the responsibility of the Contractor to make the necessary adjustments or to adjust, repair or replace the components necessary to meet the specifications. The University shall not be responsible for any added costs as a result of an unsuccessful acceptance test.
 2. Certain LED video displays included in this RFP are required to maintain minimum parameters over a specified period of time. The University at its sole discretion may engage an independent testing agency to verify the display's specifications, at any time during the specified period of time. Cost for this testing will be borne by the University, if display is complying. If the testing exhibits the display in noncompliance with the specifications, the cost of the testing shall be the responsibility of the Contractor. Contractor shall also be responsible to make the necessary adjustments or repair or replace the components necessary to meet the specifications. The University shall not be responsible for any added costs as a result of an unsuccessful test.
 3. Functionality of each of the displays and their control systems, as specified, shall be demonstrated in its entirety.
 4. Acceptance of the system includes, but not limited to, the completed installation of all physical components and the issuance of the Certificate of Approval for code compliance by the Code Authority having Jurisdiction. Tests of the system shall not occur until after the system has been installed, and all work completed on the display systems.
- F. Document all acceptance testing, calibration and correction procedures described herein. Include the following information:
1. Performance date of the given procedure.
 2. Condition of performance of procedure.
 3. Type of procedure, and description.
 4. Parameters measured and their values, including values measured prior to calibration or correction, as applicable.
 5. The names of personnel conducting the procedure.
 6. The equipment used to conduct the procedure.
- G. Upon completion of initial tests and adjustments, submit written report of tests to the University along with all documents, diagrams, and recorded drawings required herein.
- H. Final Procedures
1. Perform any and all "punch-list" work to correct inadequate performance or unacceptable conditions, as determined by the University, at no additional expense to the University.
 2. Furnish all portable (includes spare parts) equipment to the University along with complete inventory documentation. All portable equipment shall be presented in the original manufacturers packing, complete with all included instructions, miscellaneous manuals, and additional documents.
 3. Provide new acceptance testing in the same format as initial test reports.
 4. Check, inspect, and if necessary, adjust all systems, equipment, devices and components specified, at the University's convenience, approximately thirty (30) days after the University's acceptance.
 5. Upon completion of the Work, the University may elect to verify test data as part of acceptance procedure. Provide personnel and equipment, at the convenience of the University, to reasonably demonstrate system performance and to assist with such tests without additional cost to the University.

END OF PART 3 EXECUTION