

REQUEST FOR PROPOSAL

Westminster High School Theater Video, Control, and Intercom System Project

Request for Proposal No. 18-020
Date of Issue: May 24, 2019
Proposal Closing Date: June 18, 2019, at 2:00 p.m. MDT
Proposal to be returned PRIOR TO date and time above.

RETURN TO:

Westminster Public Schools
Procurement and Materials Management Department
7002 Raleigh Street
Westminster, Colorado 80030

THIS IS NOT A COMPETITIVE BID. The request for proposal process allows the District to select the vendor that best meets the needs of the District, taking into consideration vendor qualifications, price, products, and service capabilities.

PROPOSER'S CERTIFICATION

We offer to furnish to the District the products, services, and equipment requested in accordance with the specifications described herein:

Proposer: _____
Address: _____
City: _____ State _____ Zip _____
Telephone No.: _____
Name: _____
Email: _____
Title: _____
Signature: _____
Date: _____

REQUEST FOR PROPOSAL

RFP NO. 18-020

Westminster Public Schools is requesting sealed proposals from qualified firms or individuals for Westminster High School Auditorium Sound System Project.

Proposals are to be addressed and delivered to the Procurement & Materials Management Department of Westminster Public Schools, in accordance with the Instructions to Proposers and all other requirements as referenced in this document. Proposals will be received until June 18, 2019 at 2:00 PM MDT at which time a representative of the Procurement Department will announce publicly the names of those firms or individuals submitting proposals. No other public disclosure will be made until after award of contract.

The District will use the following tentative schedule for the selection process:

- Post requests for proposals May 24, 2019
- Proposal submission deadline June 18, 2019
- Last day for questions June 7, 2019
- Mandatory Walkthrough June 4, 2019
- Interviews with selected proposers TBD
- Recommendation to the Board of Education TBD

WESTMINSTER PUBLIC SCHOOLS

Eric Hodges
Director, Procurement and Materials Management

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INSTRUCTIONS TO PROPOSERS

1. Firms responding to this Request for Proposal ("RFP") must submit their proposals in the overall format as outlined in this solicitation.
2. Vendor must provide **One (1) original (clearly marked), six (6) copies and a searchable digital copy (i.e. flash drive)** of the proposal submitted no later than 2:00 P.M., June 18, 2019 to:

Westminster Public Schools
Procurement and Materials Management Department
7002 Raleigh St.
Westminster, CO 80030

3. Proposals must be submitted in a sealed package or envelope listing the following information on the outside:
 - RFP Title: Westminster High School Theater Video, Control System Project
 - RFP Number: 18-020
 - RFP Due Date: June 18, 2019
 - Proposer's name and address:

No telephone, electronic, or facsimile proposals will be considered unless otherwise stated within this document.

4. **Late Proposals will not be accepted or considered.** It is the responsibility of the Proposer to ensure that the RFP arrives at the District's Purchasing and Contracting Department prior to the time indicated in the "Request for Proposal". Telephone quotes will not be accepted when competitive sealed RFPs are solicited. In addition, proposals sent by telegraphic and/or electronic devices are not acceptable and will be rejected upon receipt. Proposing firms will be expected to allow adequate time for delivery of their RFPs either by air freight, postal service, or other means. Proposals must be sent by mail or hand delivered, allowing sufficient delivery time to ensure receipt in the Procurement and Materials Management Department by the deadline specified. Time and date validation will occur in the Procurement Department. All proposals received after the deadline will be automatically rejected and will be returned to the proposer unopened.
5. Proposals must be dated and signed by a duly authorized partner or corporate officer, with that person's name and title clearly identified. All of the proposal contents and fees must be guaranteed for ninety (90) days from the proposal date.

INSTRUCTIONS TO PROPOSERS (Continued)

6. The content of all proposals must conform to the following:
 - Proposers must respond to the questions in the order presented.
 - Proposers may provide additional supporting documentation pertinent to clarification of the proposal.
7. The District reserves the right to:
 - Reject any and all proposals received as a result of this RFP.
 - Waive or decline to waive any informalities and any irregularities in any proposal or responses received.
 - Adopt all or any part of the proposer's proposal.
 - Negotiate changes in the scope of work or services to be provided.
 - Withhold the award of contract.
 - Select the proposer it deems to be most qualified to fulfill the needs of the District. The proposer with the lowest proposal will not necessarily be the one most qualified, since a number of factors other than price are important in the determination of the most acceptable proposal.
8. The selected proposer will be required to assume responsibility for all goods and services offered in the proposal, whether or not the proposer produces them. Further, the selected proposer shall be the sole point of contact and responsibility with regard to all contractual matters, including payment of any and all charges resulting from the contract. The selected proposer shall not assign or transfer any interest in the contract without prior written consent of the District.
9. The District shall not be liable for any costs incurred by the proposer in the preparation and production of the proposal or for any work performed prior to the execution of a contract.
10. All proposals and other materials submitted shall become the property of the District.
11. No reports, information, or data given to or prepared by the selected proposer shall be made available to any individual or organization by a respondent or the selected proposer without prior written approval of the District.

INSTRUCTIONS TO PROPOSERS (Continued)

12. All changes in the RFP documents shall be through written addendum and furnished to all proposers. Verbal information obtained otherwise will not be considered in awarding of the proposal.
13. The selected proposer may be required to enter into a written contract with the District on the District's approved form. All information contained in this request for proposal and acceptable provisions of the proposer's response will be attached to and made part of the executed contract.
14. Proposers who have questions concerning the submission of proposals or the RFP process, must contact:

Eric Hodges
Director, Procurement and Materials Management
Westminster Public Schools
Email: ehodges@westminsterpublicschools.org
15. The proposals will be reviewed by a selection committee. The committee may request additional information from proposers or request personal interviews with one or more proposers. Final evaluation and selection may be based on, but not limited to, any or all of the following:
 - Information presented in the proposal.
 - Ability of the proposer to provide quality and timely products and services.
 - Qualifications and experience of the proposer.
 - Reference checks.
 - Personal interview.
 - Total cost.
 - Proposed time lines.
 - Sub-contractor selection may be considered.
16. Westminster Public Schools is an Equal Opportunity Employer. District policy prohibits discrimination against any applicant on the bases of race, color, creed, sex, sexual orientation, religion, national origin, ancestry, age, genetic information, marital status, or disability.

INSTRUCTIONS TO PROPOSERS (Continued)

17. The District reserves the right to renew and extend the executed contract agreement pertaining to all current prices, terms, conditions and specifications upon mutual agreement between the District and the Vendor for an additional one (1) year but not to exceed four (4) additional one (1) year periods.
18. **Governing Law:** The Contract shall be governed by the laws of the State of Colorado. In the event of any litigation between the parties related in any way to the Contract of the Work, such action shall be brought only in the District Court of Adams County, Colorado. The substantially prevailing party in such case shall recover its reasonable attorney fees, expert fees and cost incurred in such litigation.
19. **Performance Bond (Necessary only on construction RFPs):** A Performance and Payment (Labor and Material) Bond with good and sufficient Surety will be delivered to the District within ten (10) days after receipt of the final award document and prior to the work commencing. (Applies only to proposals over \$10,000) The punitive sum of the Performance Bond will equal 100 percent of the contract price that will be retained for a period of one year after compliance with the contract. Failure to deliver said bonds as specified shall be considered as having abandoned the contract and the bid security will be retained as liquidated damages (If applicable).
20. **Insurance Requirements:** Before commencing any work, the successful Bidder is required, at his/her own expense, to furnish Westminster Public Schools, Procurement Director, within 10 days of notification of award; certified copies of all insurance policies showing the following insurance coverage (unless specified differently in project specifications). The insurance policy is to remain in force throughout the term of the contract (insurance companies must be licensed and admitted to do business in Colorado):

General Public Liability: \$1,000,000 Bodily injury, per occurrence
 \$1,000,000 Bodily injury, aggregate
 \$1,000,000 Property damage, per occurrence
 \$1,000,000 Property damage, aggregate

Automobile Liability: \$500,000 Bodily injury, per occurrence
 \$100,000 Property damage, per occurrence

Workmen's Compensation: Statutory limits per State of Colorado.

INSTRUCTIONS TO PROPOSERS (Continued)

The District may, if it so desires, withhold the payments due the contractor so long as shall be reasonably necessary to indemnify the District on account of such injuries.

21. **Contract Termination with Cause:** Westminster Public Schools shall have the right at any time and at all times to terminate this Contract for cause. It is agreed that the violation by the awarded Contractor of any covenant or provision contained in this Contract, or the failure or refusal of the awarded Contractor to abide or carry out any covenants or provision of this Contract, shall constitute sufficient cause for which the District may terminate this Contract. In the event the District shall elect to terminate this contract for cause, the District shall notify the awarded Contractor in writing and shall specify the cause for such termination and the date that such termination shall be effective. Whereupon the awarded Contractor shall have no further rights and the District shall have no further obligation to the awarded Contractor, pursuant this Contract subsequent to the date that the Contract is terminated for cause as aforementioned by the District.
22. **Contract Termination without Cause:** Westminster Public Schools shall have the right at any time and at all times to terminate this Contract without cause, upon written notice of such termination not less than 90 days prior to the date that such termination shall be effective. Such right to terminate this Contract without cause is hereby reserved by and to the District. In the event the District shall elect to terminate this Contract without cause, the District shall notify the awarded Contractor in writing and shall specify the date (not earlier than 90 days after the date of delivery of written notice by the District to the awarded Contractor) on which this Contract will terminate. Upon receipt of written notice, the awarded Contractor agrees to abide and perform all covenants and provisions of this Contract until the date of termination specified in the written notice of termination. The awarded Contractor shall have no further rights, and the District shall have no further obligation to the awarded Contractor, subsequent to the date of termination of this Contract as specified in the written notice.
23. **Contractors Personnel:** Qualifications of new people working under this contract will be submitted to the District in writing for approval prior to them conducting any service under this contract. Submit list of all employees that will be working under the current contract and any intention for additional personnel, and back-up personnel for each function.

INSTRUCTIONS TO PROPOSERS (Continued)

24. **Communications:** Contractor must provide a means to receive direct communications from the District. A copy of all written communication concerning contract discrepancies, issues or concerns from the District and the Contractor shall be forwarded to the Director of Procurement upon issuance.
25. **Contract Administration:** Westminster Public Schools will periodically inspect work to assure that the requirements of this contract are being met. Should it be found that the requirements specified herein are not being satisfactorily maintained, the Contractor shall be contacted and any discrepancies, inconsistencies or items not meeting the specifications contained herein corrected immediately at no additional cost to the District. A second discrepancy notice shall serve as notification that any future discrepancies, inconsistencies or items not meeting specifications contained herein will result in termination of the Contractors' right to proceed further with this work. In such event the Contractor will be paid only for materials used. The Contractor and his sureties may be liable to the District for any additional cost incurred by the District to complete the job. At this point the Contractor shall be considered in default and the contract subject to termination.

Failure of the Contractor to comply with any of the provisions of this contract shall be considered a material breach of contract and shall be cause for immediate termination of the contract at the discretion of Westminster Public Schools.

Westminster Public Schools reserves the right to terminate this contract in whole or in part should the need for the services cease to exist.

Contractor shall be subject to periodic performance evaluations by District personnel. Continued unsatisfactory ratings shall be cause to find the Contractor in default of the contract. Performance ratings may be considered during award of future contracts by the District.

26. **Cooperative Purchasing:** Westminster Public Schools is a member of the Cooperative Educational Purchasing Council (CEPC). The geography of the CEPC lies along the front range of the Rocky Mountains from the Fort Collins/Greeley area in the north to Colorado Springs in the south. This membership of public purchasing departments represents approximately seventy percent (70%) of the K-12 public school enrollment in the State of Colorado. If within the service area of the successful Bidder, it is hereby agreed and understood that any member of the CEPC may avail itself of this contract and purchase any and all items specified herein from the successful Bidder(s) at the contract price(s)

INSTRUCTIONS TO PROPOSERS (Continued)

established herein. Each CEPC member that uses a contract(s) resulting hereof will establish its own contract, place its own orders, issue its own purchase orders, be invoiced there from and make its own payments, and issue its own exemption certificates as required by the Bidder. It is understood and agreed that Westminster Public Schools is not a legally binding party to any contractual agreement made between a CEPC member and the Bidder as a result of this bid.

27. **Time is of the essence.** When a date is set for the delivery of merchandise or the performance of work, said merchandise must be delivered, and/or work must be performed, on or before said date, or the Contract/Purchase Order for the delinquent merchandise and/or work may be canceled and awarded to another Bidder. In such case, the District shall have the right to buy such merchandise and have such work performed at market price for immediate delivery, and all excess costs shall be paid by the Bidder whose merchandise and/or work was delinquent.
28. **Vendor Performance:** In accordance with the District's policy regarding the use of tobacco products, no employee of the Bidder, including subcontractors, shall be permitted to use tobacco products while on District property. This includes school buildings, grounds, school owned and leased vehicles, and sites leased by the District.

The Vendor shall provide a Material Safety Data Sheet (MSDS) for each hazardous chemical delivered to the District. A current MSDS will be required on each item for each subsequent delivery of that item.

Certification. The Contractor certifies that the Contractor shall comply with the provisions of C.R.S. § 8-17.5-101 et seq. The Contractor shall not knowingly (a) employ or contract with an illegal alien to perform work under this contract, (b) enter into a contract with a subcontractor that knowingly employs or contracts with an illegal alien to perform work under this contract, or (c) enter into a contract with a subcontractor that fails to contain a certification to the Contractor that subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, (ii) will comply with all requirements of C.R.S. §8-17.5-102(2) (b), and (iii) shall comply with all reasonable requests made in the course of an investigation by the Colorado Department of Labor and Employment. If the Contractor fails to comply with any

INSTRUCTIONS TO PROPOSERS (Continued)

requirement of this provision or C.R.S. §8-17.5-101 et seq., the District may terminate this contract for breach and the Contractor shall be liable for actual and consequential damages to the District. Any person who is engaged by Consultant as a subcontractor shall comply with the provisions of C.R.S. §24-76.5-101 et seq. by producing one of the forms of identification as provided therein and otherwise demonstrating that he or she is lawfully present in the United States. Respondent shall complete Certification Statement Regarding Illegal Aliens form contained within this document.

The District prohibits any form of harassment including and not limited on the basis of race, color, religion, sex, national origin, age, marital status, or disability. It shall be a violation of this policy for any vendor or their agent to harass a student or an employee through conduct or communication.

The District will act to investigate all complaints, formal or informal, verbal or written, of harassment and to discipline any vendor or their agent that harasses a student or employee of the District.

Compliance with Amendment 54: Article XXVII of the Colorado Constitution regarding limitations on “sole source” government contracts; On or after December 31, 2008, and to the extent required by law, the consultant shall comply with Article XXVII, sections 15 and 17(2), of the Colorado Constitution which currently provides, “the contract holder(s) agree for the duration of this contract and for two years thereafter, to cease making, causing to be made, or inducing by any means, a contribution directly or indirectly, on behalf of the contract holder or on behalf of his or her immediate family member and for the benefit of any political party or for the benefit of any candidate for any elected office of the state or any of its political subdivisions.”

29. **Background Checks:** The successful Vendor will be required to complete, at their own expense, a Criminal record check on all employees working on or reasonably likely to work on school district property for this contract. Employees who have been convicted of, pled nolo contendere to, or received a deferred sentence or deferred prosecution for a felony, or a misdemeanor crime involving unlawful sexual behavior or unlawful behavior involving children, will not be allowed to work on District property for this contract.

INSTRUCTIONS TO PROPOSERS (Continued)

The successful Vendor must complete a Verification of Background Check form indicating that they have done a background check on all of their employees working on school district property. The successful Vendor will be responsible to adhere to any Federal, State, and Local privacy and confidentiality requirements and other laws, regulations or policies governing employee background checks.

30. **Sustainability:** The Westminster Public Schools is committed to protecting the environment, and the health of the community and its employees. In accordance with this policy, Westminster Public Schools and its departments are directed to procure cost-competitive products and services that minimize resource consumption and negative impacts on the environment and human health.

Vendors, when applicable, are to follow standards and recommendations of the United States Environmental Protection Agency EPP (Environmentally Preferable Purchasing) program, the Green Seal organization, and standards and practices specified by the U.S. Green Building Council, including the Leadership in Energy and Environmental Design (LEED) program.

Vendors, when providing products that would qualify as EPP products please be specific as to the standards or which program has approved your solution.

31. **Modifications To Existing Contract:** No change will be made to the requirements of this contract without the express written consent of the District. Terms and conditions may be added and deleted upon mutual agreement between authorized agents of the District and the Bidder, provided that such terms and conditions remain within the scope and original intent of the RFP. Said terms and conditions may include, but are not limited to, additions or deletions of service levels and/or commodities and increases or decreases in the time limits for an existing contract. Any and all modifications must be expressed in writing through a written change order and executed by authorized agents of the District and the Bidder prior to the enactment of such modifications.

Any excess cost incurred by the contractor, in the event an unauthorized change is made, will be at the Bidders expense and not chargeable to the District. Any change made without the consent of the District may result in cancellation of this contract.

32. **Inspection and Acceptance:** Each item delivered under this contract will be inspected by the District at the time of delivery, or as soon thereafter as possible. Any item found not to meet the Technical Provisions of this contract will be

INSTRUCTIONS TO PROPOSERS (Continued)

immediately returned to the contractor for repair or replacement at the contractor's expense. If return of an item is not possible, the contractor will be notified of non-acceptance within 3 days of inspection by the District. Any item will be considered accepted by the District after a satisfactory inspection has been made and any repairs or replacements required have been accomplished. Inspection shall not relieve the contractor of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the contractor's or manufacturer warranty.

33. **Payment:** The District shall award a contract to a bidder through issuance of a purchase order. Upon delivery of the item and acceptance by the District, the successful Bidder will submit an original invoice to the Accounting Office for payment. Submit invoice to Westminster Public Schools, Accounting Department, 7002 Raleigh Street, Westminster, CO 80030. State the purchase order number on the invoice. The District will make every effort to pay all invoices on a timely basis. Past due invoices will not be considered as justification for withholding any shipment. The District will not pay late charges or interest charges.
34. **Tax Exemptions:** In accordance with regulations of the Department of Revenue, State of Colorado, all manufacturers' excise and sales tax due in the State of Colorado, or other local entity, on any items provided pursuant to this contract are exempted from payment by the District. The applicable tax exemption number for the State is 98-03358.

No amount paid to the contractor pursuant to this agreement shall include reimbursement for such taxes.

35. **Excusable Delays:** The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due to:
- A. Any acts of Government, including controls or restrictions upon or requisitioning of material, equipment, tools, or labor by reason of war, National defense, or any other National emergency.
 - B. Any acts of the District.
 - C. Causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the vendor, including, but not restricted to, act of God or

INSTRUCTIONS TO PROPOSERS (Continued)

of the public enemy, and of another vendor in their performance of some other contract with the District: fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones, and other extreme weather conditions.

36. **Default/Cancellation:** The District reserves the right to cancel without penalty, at any time, any awards occurring as a result of this bid. Time is of the essence. When a date is set for the delivery of merchandise or the performance of work, the merchandise must be delivered, or work performed, in accordance with the bid specifications or description on or before that date, or the order to the delinquent Respondent may be canceled and re-awarded. In such case, the District will have the right to buy merchandise or services at market price for immediate delivery. Any excess in cost shall be paid by the delinquent Respondent or deducted from any money due the delinquent Respondent.
37. **Licenses and Permits:** The successful firm shall be completely and wholly responsible for obtaining any and all licenses or permits required for the Work and he/she shall comply with and give any and all notices necessary to comply with all laws ordinances, or rules and regulations applicable to the Work.
38. **Familiarization with The Work:** Before submitting an Invitation for Bid or Request for Proposal, Bidder shall familiarize him/herself with the Work, the site where Work is to be performed, local labor conditions and all laws, regulations and other factors affecting performance of the Work. Contractor shall carefully correlate his/her observations with his/her experience, the requirements of the RFP and otherwise satisfy him/herself of the expense and difficulties attending performance of the Work. The submission of a Proposal will constitute a representation by the proposing party that he/she has complied with every requirement. There will be no subsequent financial adjustment for lack of such familiarization.
39. **Indemnification:** The contractor agrees to indemnify and hold harmless Westminster Public Schools, its agents, Board of Education, and employees from and against all liability, claims, and demands, on account of injury, loss, or damage, including without limitations claims arising from bodily injury, personal injury; sickness, disease, death, property loss or damage, or any other loss of any kind whatsoever, which arise out of or are in any manner connected with this contract, if such injury, loss, or damage is caused in whole or in part by, or is claimed to be caused in whole or in part by, the act, omission, error, professional error, mistake, negligence, or other fault of the contractor, any subcontractor of the

INSTRUCTIONS TO PROPOSERS (Continued)

contractor, or any officer, employee, representative, or agent of the contractor or which arise out of any workman's compensation claim of any employee of the contractor or of any employee of any subcontractor of the contractor. The contractor agrees to investigate, handle, respond to, and to provide defense for and defend against, any such liability, claims, or demands, at the sole expense of the contractor. The contractor agrees to bear all other costs and expenses related thereto, including court costs and attorney fees, whether or not any such liability, claims, or demands alleged are groundless, false, or fraudulent.

40. **Product Warranty:** Bidder's product(s) must be protected against defects in materials, labor, travel, and workmanship, for the standard period specified by the manufacturer. This period will begin to run at the time the product is placed in complete and full-time operation. Prior testing periods will not start the running of the period. The successful vendor agrees to repair the product or replace any necessary parts at no charge to the buyer during this period. Should repairs be required during this period, the period will be interrupted (tolled) during the entire period of repair. The period will resume at the completion of repairs and when the product is again in complete and full-time operation.

The successful vendor shall promptly correct all deficiencies in products and/or work that fail to conform to specifications. All corrections shall be made within five (5) calendar days after such rejected defects, deficiencies and/or non-conformances are verbally reported to the vendor by the District's designated Project Manager or the Procurement Director. The vendor shall bear all costs of correcting such rejected products and/or work.

41. **Estimated Quantities:** Quantities listed are the District's best estimate and do not obligate the buyer to order or accept more than District's actual requirements during the period of this agreement, as determined by actual needs and availability of appropriated funds. It is expressly understood and agreed that the resulting contract is to supply the District with its complete actual requirement for the contract period.
42. **Governing Law:** The Contract shall be governed by the laws of the State of Colorado. In the event of any litigation between the parties related in any way to the Contract of the Work, such action shall be brought only in the District Court of Adams County, Colorado. The substantially prevailing party in such case shall recover its reasonable attorney fees, expert fees and cost incurred in such litigation.

SPECIAL INSTRUCTIONS

Mandatory Pre-Bid Conference: A **MANDATORY** Pre-Bid conference will be held on June 4, 2019 at 10:00 AM MDT at Westminster High School, 6933 Raleigh St., Westminster, Colorado 80030. We will meet at the front door of Westminster High School which is by the flagpole. All Contractors are expected to have at least one representative present. At this mandatory pre-bid conference. The Scope of Work will be discussed in detail and questions will be addressed individually. The purpose of this pre-bid conference is to answer questions to all Contractors at one time in one location. The District expects everyone in attendance to have read the RFP and developed a list of questions or items that need further clarification. The District will make every attempt to answer all questions during the pre-bid conference but if there are any questions that need to be further clarified we will do so to the entire Contractor group in an email, after the conference.

At least one designated representative from each prospective bidder must attend this mandatory pre-bid conference to familiarize themselves with all conditions, requirements and specifications. Proposals will not be accepted by Contractors that did not attend the mandatory pre-bid conference.

Questions will be received by Eric Hodges at ehodges@westminsterpublicschools.org until Friday, June 7, 2019 at 5:00 p.m. The response to these questions will then be emailed directly to all Contractors, who have attended the Mandatory Walkthrough and signed the signup sheet by Wednesday, June 12, 2019 at 5:00 p.m. If questions are submitted after this date, it is the sole discretion of the District if the questions will be answered.

SPECIFICATIONS/SCOPE OF WORK

Background

District Profile: Westminster Public Schools (the District) is soliciting proposals from qualified firms to provide Westminster High School Theater Video, Control and Intercom System Project in the Westminster Public Schools in accordance with the scope of service specified. Qualified firms that meet all criteria will be considered. This Request for Proposal should not be misconstrued as a formal bid. There is absolutely no commitment to purchase or enter into a formal contract. Upon completion of our evaluation of your proposal, we may recommend that a formal contract be established.

Westminster Public Schools covers a geographical area of 17.5 square miles and provides service to portions of the cities of Westminster, Arvada, Denver, Federal Heights and certain unincorporated areas of Adams County. Within these boundaries are 12 elementary schools, three middle schools, two high schools (one of which houses Administration known as Educational Service Center [ESC]), and an early childhood center. In addition to the permanent structures there are multiple modular buildings associated with these sites. Our remaining buildings house alternative programs and support service functions.

Approximately 10,000 students and 1,100 staff members occupy these buildings during the traditional school year, August through May, while the Educational Services Center and support services buildings are occupied year round.

Scope of Work and Specifications

SECTION 27 41 00

AUDIO-VISUAL SYSTEMS

PART 1 - GENERAL

1.1 REFERENCE TO OWNER'S GENERAL CONDITIONS

- A. The Owner's General Conditions shall be considered part of this specification. Unless this section contains statements, which are more definitive or more restrictive than those contained in the Owner's General Conditions, this specification shall not be interpreted as waiving or overruling any requirements expressed in the General Conditions.

Scope of Work and Specifications (Continued)

1.2 RELATED DOCUMENTS

1. Drawings and general provisions of the contract, including general and supplementary conditions and other Division 01 specification sections, apply to this section.
2. Electrical infrastructure (electrical j-boxes, conduit) for AV systems is shown on AV drawings.

1.3 RELATED WORK

- A. AV Contractor shall be responsible for the coordination of equipment and materials provided and installed by others where they relate to AV systems, unless otherwise shown in this Section or the Drawings, shall include but are not limited to:
 1. Electrical Outlets
 2. Floor boxes
 3. Furniture
 4. Telecommunications Outlets
 5. Lighting Control Devices
 6. Building Management Systems

1.4 DEFINITIONS

- A. The following shall serve as general identifiers as specified herein.
 1. Owner – Westminster Public Schools
 2. Consultant –D.L. Adams Associates.
 3. Contractor – The Contractor is the firm submitting a proposal to furnish and install the Work as defined within this Specification.
 4. Project – The Project is the Westminster High School Theatre Video, Control, and Intercom Replacement and Repair.
 5. Work – The term “Work” means all construction and services specified within this document. The Work includes all related labor, materials, equipment, and services provided, or to be provided, by the Contractor to fulfill the proposal’s obligations.
 6. Drawings – The term “Drawings” means all Audio-Visual Systems Drawings and associated sketches, details, riser diagrams, etc.
- B. As used in the Drawings and Specifications for the Work, certain non-technical words and phrases shall be understood to have specific meanings as follows, regardless of indications to the contrary in the General Conditions or other documents governing the Work.

Scope of Work and Specifications (Continued)

1. “Furnish” – Purchase and deliver to the project site complete with every necessary appurtenance and support, all as part of the Audio-Video Systems Work. Purchasing shall include payment of all sales taxes and other surcharges as may be required to assure that purchased items are free of all liens, claims, or encumbrances.
 2. “Install” – Unload at the delivery point at the site and perform every operation necessary to establish secure mounting and correct operation at the proper location in the project, all as part of the Work.
 3. “New” – Manufactured within the past year and never used.
 4. “Provide” – Furnish and Install.
- C. Regardless of their usage in codes or other industry standards, certain words or phrases as used in the drawings or specifications for the Work, shall be understood to have the specific meanings as described to them in the following list:
1. “Audio-Video Closet” – The enclosed area or room specifically designated for the routing, termination, and/or cross connecting of Audio-Video Systems cable (i.e. riser cable) to other Audio-Video Systems cable and/or equipment.
 2. “AV” – Audio-Video
 3. “AVC” – Audio-Video Systems Contractor.
 4. “AV System(s)” – Audio-Video System(s), includes all components contained herein that work in conjunction to create and completely integrated and fully functioning system as described within the Drawings and Specifications
 5. “AV Systems Control Room” and/or “AV Systems Headend” – The enclosed area or room specifically designated for the routing, termination, and/or cross connecting of audio and video system cable (i.e. riser cable) to other audio or video system cable, and/or equipment and racks.
 6. “Circuit” – Any specific run of circuitry.
 7. “Circuitry” – Any Work which consists of wires, cables, raceways, and/or specialty wiring method assemblies complete with associated junction boxes, pull boxes, outlet boxes, joints, couplings, splices, and connections except where limited to a lesser meaning by specific description.
 8. “Concealed” (as applied to circuitry) – Covered completely by building materials, except for penetrations (by boxes and fittings) to a level flush with the surface as necessitated by functional or specified accessibility requirements.
 9. “Exposed” (as applied to circuitry) – Not covered in any way by building materials.

Scope of Work and Specifications (Continued)

10. "NIC" – Not in Contract
11. "Normal Work Conditions" – Locations within building confines that are not damp, wet, or hazardous and that are not used for air handling.
12. "OFE" – Owner Furnished Equipment
13. "Patch Panel" – A System of terminal blocks, patch cords, and backboards that facilitate administration of cross-connecting cables.
14. "Raceway" – Any pipe, duct, extended enclosure, or conduit (as specified for a particular System) which is used to contain wires and which is of such nature as to require that the wires be installed by a "pulling in" procedure.
15. "Riser" – Shall refer to the portion of the installation that transmits between building floors (or between Audio-Video Systems rooms), also referred to as "Backbone Cabling".
16. "Standard" (as applied to wiring devices) – Not of a separately designated individual type.
17. "System" – See "AV Systems"
18. "Wiring" – see "Circuitry"

D. Additional Terms:

1. The term "shall" is mandatory; the term "will" is informative; the term "should" is advisory; and the term "provide" means furnish and install.
2. Where the word "conduit" is used without specific reference to type, it shall be understood to mean "raceway".
3. The term "custom" indicates systems or components that shall be designed and fabricated by the Contractor based on the drawings and specifications.
4. The term "future" indicates systems or components that will be added to the system later but shall be provisioned for now.
5. The term "equal" indicates systems or equipment that is of the same size, color, design, function, efficiency, etc. as of that specified.
6. Reference to "U.L. (Materials Construction) Standards" shall mean the "Standards for Safety" published by Underwriters Laboratories, Inc

1.5 SCOPE OF WORK

A. General:

1. The work as described herein shall be furnished and installed by one firm alone, hereafter referred to as the AV Contractor. The AV Contractor shall furnish and install all equipment, and audio/video signal and control cabling for the AV Systems described herein. The Contractor further agrees that they shall provide all Work as may be required to make a complete and fully functioning system of that which may not be fully defined in the Contract Documents.

Scope of Work and Specifications (Continued)

2. The specifications and drawings shall be read and used together, system features which are mentioned in one are not necessarily shown in the others. In case of conflict between the drawings and specifications, request clarification. It shall be understood that the Equipment Lists, Specifications and Drawings are complementary. Where there are conflicts within the documents, the overall design intent shall govern.
 3. The work provided shall be complete and the systems shall be fully operational as shown on audio visual system "AV" drawings and described in Paragraph 1.7 herein.
 4. Equipment not mentioned herein nor shown on drawings but necessary to meet the requirements of this section shall be provided without claim for additional payment.
 5. The project documentation is, in general, diagrammatic and/or developed to communicate design intent. The Contractor shall coordinate the installation of all devices and/or equipment with the Owner prior to installation based on the existing field conditions.
 6. The AV Contractor shall coordinate all installed items with associated trades (electrical, mechanical, Telecom, etc.) including all necessary cable pass-thrus and structural needs/requirements.
 7. The AV Contractor shall provide all software programming required to provide fully operational systems.
 8. AV Contractor shall conduct a frequency audit of the site prior to selection of wireless operating frequencies. Select frequencies such that systems are free of interference. Include an intermodulation interference analysis. Coordinate frequencies and specific transmitter/receiver selection using professional wireless audio systems software.
 9. The AV Contractor shall coordinate the specific programming requirements of the AV Control System with a designated Owner representative, including touch screen layouts and page navigation. All programming written for this project shall be the property of the Owner and shall be provided to the Owner upon completion.
 10. Digital video systems in this design shall employ an EDID management strategy and shall be HDCP compliant.
- B. Coordinated Work
1. Coordinate all building network connectivity requirements with the Owner.
 2. Coordinate all electrical requirements with the Owner's electrician.

Scope of Work and Specifications (Continued)

1.6 GENERAL CONDITIONS

- A. The Contractor represents that they are familiar with, and have expertise in the Work of this nature and scope.

The Contractor shall comply with all of the regulations, including safety regulations of national, city, local and other government agencies having jurisdiction concerning the work of the Contractor. The Contractor shall give all notices and comply with all laws, ordinances, codes, rules, and regulations bearing on the conduct of the Work. If the Contractor performs any work, which is contrary to such laws, ordinances, codes, rules and regulations, they shall make all changes for compliance and bear all associated costs.

- B. The Contractor shall be responsible to provide and maintain a storage facility as required. If this storage facility is required to be on-site it shall be the Contractor's responsibility to coordinate the size and spatial requirements with the General Contractor. The Contractor shall assume full responsibility for the storage facility and all contents, unless otherwise indicated by the Owner.
- C. The Contractor shall provide all protection necessary to safeguard their work from damage by their operations and the operations of others. Unless the Contractor proves to the Owner's satisfaction that the Work has been damaged by others, the Contractor shall promptly repair, adjust, and clean all defective installations and bear all associated costs.
- D. All of the Contractor's work shall be tested and inspected by all authorities having jurisdiction and in accordance with all specifications. The Contractor shall coordinate and cooperate fully and shall provide at no additional cost to the Owner, manpower, drawings, facilities, scaffolds, etc. to reasonably assist the inspectors.
- E. The Owner reserves the right to furnish any materials necessary for the Project.
- F. All permits required for any part of the Contractor's work shall be procured and paid for by the Contractor. The Contractor shall determine all permits required and transmit this information to the Owner. If it is determined that the Contractor's work falls reasonably within another party's permit (General Contractor, Electrician, etc.) the Contractor shall not be required to procure additional permits provided written authorization is provided to the Contractor by the party holding the permit.
- G. The Contractor must state if they intend to utilize a subcontractor, and provide said subcontractor's name and address. The subcontractor shall comply with all the same rules, regulations, laws and codes, licenses, etc. as required by the

Scope of Work and Specifications (Continued)

Contractor and as specified herein. The Owner and/or Consultant reserves the right to approve or disapprove any subcontractor proposed by Contractor.

The Contractor, upon receiving notice from Owner and/or Consultant that the Contractor has furnished inferior, improper or unsound work or materials (including equipment), or work or materials at variance with that which is specified, will, within 24 hours, proceed to remove such work or materials and make good all other work or materials damaged thereby, and, at the option of the Owner, the Contractor shall immediately replace such work or materials with work or materials as specified. The removal, replacement, and repair shall be performed at such times and with manpower sufficient, in the judgment of the Owner, so as to avoid disturbance to occupants, or other ongoing work for the Project.

1. If the Contractor does not remove such unsound Work within a reasonable time, the Owner may remove it and may store the material at the expense of the Contractor. If the Contractor does not pay the expenses of such removal within ten (10) days' time thereafter, the Owner may, upon written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor and all expenses of the sale.
2. The Owner shall have the authority at all times, until final completion and acceptance of the Work, to inspect and reject work and materials which in its judgment are not in conformity with the Drawings and Details, Room Data Sheets and Specifications, and its decision in regard to character and value of Work shall be final and conclusive on both contracting parties. If the Owner permits said Work or materials to remain, the Owner shall be allowed the difference in value or shall at its election have the right to have said Work or materials repaired or replaced, as well as the damage caused thereby, at the expense of the Contractor, at any time within one (1) year after the completion of the entire project, or within such longer period as may be covered by any guaranty; and neither payments made to the Contractor, nor any other acts of the Owner, shall be construed as evidence of acceptance, waiver, or estoppels.
3. Any expense incurred by the Owner in connection with the foregoing, shall be borne by the Contractor, and the Owner may withhold money due to the Contractor or recover money already paid to the Contractor, to the extent of such expense.

Scope of Work and Specifications (Continued)

- H. The Drawings for the Work utilize symbols and schematic diagrams that have no dimensional significance. The Work shall be installed to fulfill the diagrammatic intent expressed on the Drawings, field layouts, and shop drawings of all trades.
- I. Certain details appear on the Drawings for the Work that are specified with regard to the dimensioning and positioning of the Work. These are intended only for general information purposes. They do not obviate field coordination for individual items of the indicated Work.
- J. Information as to general construction and architectural general construction and architectural features and finishes shall be derived from the structural and architectural drawings and specifications, and may require ongoing coordination with the Architect and/or Construction Team.
- K. The Work called for under this Contract shall be carried on simultaneously Owner functions in such a manner as to not delay the overall progress of the construction project. The Contractor is responsible for all coordination of the Work with the Owner.
- L. Include in the Work all necessary supervision and issuing of all coordination information to any other trades who are supplying work to accommodate the Audio-Video Systems installation. For items of equipment which are to be installed but not purchased as part of the Work, the Work shall include:
1. Coordination of delivery
 2. Unloading from delivery trucks
 3. Safe handling and field storage up to the time of permanent placement in the project
 4. Correction of any damage to the item(s) caused by the Contractor
 5. Mounting in place and connection(s) as specified
- M. Items which are to be installed, but not purchased as part of the Work shall be carefully examined upon delivery to the project. Claims that any of these items have been received in such condition that their installation will require procedures beyond the reasonable scope of the Work will be considered only if presented in writing within one (1) week of the date of delivery to the project of the items in question. The Work includes all procedures necessary to put in satisfactory operation all items for which no claims have been submitted as outlined above.

Scope of Work and Specifications (Continued)

1.7 SUMMARY

- A. Base Bid: The video, control, and intercom systems supporting the theatre shall be replaced or repaired as necessary to provide modern digital video distribution, to provide easy-to-operate controls with a graphical user interface, and to provide a reliable theatrical intercom.
- B. Add Alternate #1
 - 1. Provide new projector.
- C. Add Alternate #2
 - 1. Provide Camera infrastructure from the Theatre to the Recording Studio.

1.8 BASE BID DESCRIPTIONS AND FUNCTIONS

- A. Demolition
 - 1. The AV Contractor shall remove and salvage the existing video transmitters, video receivers, touch panels, control processing, intercom speaker stations, and wireless intercom systems. Turn all removed equipment over to Owner.
 - 2. Remove abandoned wiring and all cabling associated with removal of video transmitters, video receivers, touch panels, control processing, intercom speaker stations, and wireless intercom systems unless the cabling will be reused.
 - 3. Remove the existing network switch in the amplifier rack and turn it over to the Owner.
- B. Video System
 - 1. Provide a new network-based video distribution system to replace the existing video distribution system. All existing video transmitters and video receivers shall be replaced by network-based video encoders and decoders. All encoders and decoders shall be replaced at their existing location and configuration unless specifically described herein.
 - a. Existing video transmitters shall be replaced with wall plate encoders at the following locations: stage left wing, stage right wing, in-house audio control position, control room, and studio control room.
 - b. The video transmitter located in the orchestra pit shall be replaced with an encoder in the new stage left floor pocket located on the pit cover. The orchestra pit media plate shall be replaced with a video plate.
 - c. Existing video receivers shall be replaced with decoders at the projector and in the studio control room.
 - d. New video decoders shall be added at the stage right wing for a new display, at the stage left wing for a new display, at the in-house audio

Scope of Work and Specifications (Continued)

- control position for a new preview monitor, and at the control booth for a new preview monitor.
2. 48" displays shall be provided at each of the new stage wing video decoder locations. Display shall be wall mounted on a tilting wall mount. The stage left display will require a custom backing for mounting in front of existing conduits. The display power status and signal routing shall be controlled from the new control system. AV contractor shall coordinate new 120V power at these locations with school's electrician. Schools electrician will provide power.
 3. A 22" preview monitor display shall be provided at the sound control location. The monitor shall be mounted on a swing out arm wall mount. The display power status shall be controlled from the new control system.
 4. A 22" display shall be provided in the control booth. The monitor shall be mounted on a desktop stand. The display power status shall be controlled from the new control system.
 5. Re-use existing CrestCat cabling where possible. Existing network tie lines may be re-used. These are identified on the one-line drawing. It is the responsibility of the AV contractor to verify the location and condition of all existing wiring. Provide new wiring in existing conduit if required to support the new video encoders and decoders as required. Provide new conduit to new flat panel displays. Coordinate new conduit with school's electrician.
 6. A video network control processor shall be provided to control routing of network video encoders and decoders.
 7. An AV network shall be provided. It shall be the responsibility of the AV Contractor to configure the AV network for the optimal transmission of digital audio, digital video, and control system protocols.
 - a. The AV network shall consist of one (1) 48-port PoE+ network switch that is located in the amplifier rack. It shall be the responsibility of the AV Contractor to supply all necessary switch accessories to meet the network and power performance requirements of the AV equipment specified herein.
 - b. The AV contractor shall coordinate with switch manufacturer for support as required to properly configure the AV network, including remote or on-site manufacturer switch configuration if required.
 - c. All network cabling provided by the AV Contractor shall adhere to the applicable Category 6A standards. AV Contractor shall provide test report prior to system checkout documenting compliance with applicable standards for all installed network cables.

Scope of Work and Specifications (Continued)

8. Provide a PTZ camera above the control booth window at the rear of the auditorium. The PTZ shall simultaneously output HDMI and HD-SDI signals. The HDMI shall be encoded by a wall plate video encoder and be available on the AV network. The HD-SDI signal shall be routed to the studio control room on a new cable. The camera shall be controlled by the control system via a LAN connection.
- C. Control System:
1. Control system functions described herein are minimum requirements and additional controls and control functionality is required to be added upon direction from owner or consultant during the process described herein. Prior to beginning any programming coordinate with the Owner and Consultant on general expectations.
 2. Conduct a programming discovery meeting with the Owner to review the following:
 - a. General overall layout
 - b. Color palette
 - c. Expected control functions by room
 - d. Organization of basic and advanced functions
 - e. Detailed expectations for advanced control of individual components or subsystems
 - f. Expectations for automated or grouped control functions
 - g. Any other control related functionality as required by the Owner
 3. Provide three (3) programming submittals with four (4) revisions to the Owner and Consultant as follows:
 - a. The first submittal shall be comprised of a list of functions to be provided by the space. One revision shall be made after comment.
 - b. The second submittal shall be comprised of working touch panel screen shots provided by room. One revision shall be made after comment.
 - c. The third submittal shall be comprised of working touch panels of each type and loaded with each room's specific programming. The Owner shall be able to operate the panel and navigate to all pages but will not be able to control any equipment. One revision shall be made after comment.
 - d. The system shall be reviewed again with the Owner at the end of the (1) year warranty period. One revision shall be made after comment.
 - e. During each submittal, the Contractor shall be prepared to discuss and document button-by-button expected functions or sequences as they relate to final system operation.

Scope of Work and Specifications (Continued)

4. A new control system with a hardware central controller shall be provided. The central controller shall be controlled from graphical user interfaces on hardware and software control devices. All existing control interfaces shall be removed.
5. Touchscreen controllers shall be provided at the stage manager's rack, at the sound control booth, and in the lighting booth.
Provide control app mirroring touchscreen look and operation for Owner provided portable devices. Coordinate use of owner wireless network and access permissions with Owner IT. Owner to provide devices for loading and setup of control app at time of installation. Owner to provide all wireless access points or access to existing school network for connection of wireless owner-provided devices.
6. The control system shall monitor all equipment that provides bidirectional feedback and report any failures or errors to an Owner designated representative. Coordinate communication method (e-mail, etc.) with Owner.
7. The control system shall allow a user to select between two control modes: "Presentation Mode", and "Performance Mode." Each mode shall have a separate password from the login screen. Coordinate exact naming of modes and passwords with Owner
8. Presentation Mode shall allow everyday users with little training to operate the system during simple events using the stage. This mode shall be controlled by a touchscreen and not require an operator. This system shall be adequate for lectures, assemblies, movies, community meetings, and simple events with a limited number of dedicated inputs and a wireless microphone to support the presentation. Presentation mode shall also allow for the inputs to be routed to one monitor channel for local reinforcement of the stage for use in rehearsal or classes where the house sound reinforcement system is not required.
9. Performance Mode shall allow an advanced user the ability to provide sound reinforcement for events with multiple microphones, such as amplified musical or theatrical performances. This mode will use the main mixing console to control audio levels.
10. On system power, up all relevant equipment shall be turned on. Provide power sequencing as necessary. On power-off all equipment shall be powered off, with the exception of network switches, DSP devices, and network-controlled amplifiers. Network switches to remain powered on and supply power to PoE touchscreens. DSP shall always remain on and have power supplied from a UPS. Amplifiers shall be put into standby mode when the system is powered off. If an existing amplifier cannot be put into standby it shall be powered off.

Scope of Work and Specifications (Continued)

11. In Presentation Mode, available touchscreen control options shall include, but not be limited to the following:
 - a. General
 - 1) PIN or password lock unique for each mode, if requested by Owner.
 - 2) Power the system on/off (note: provide shutdown conformation).
 - 3) Change modes (note: provide mode change conformation and pin or password entry).
 - b. Video Page
 - 1) Video source select.
 - 2) Power the video projector on/off. Note: deploy screen when projector is powered on. Turn off displays, raise screen and cool down projector if required when the system is turned off.
 - 3) Provide a separate control to raise/lower/stop screen.
 - 4) Video mute.
 - c. Audio Page
 - 1) Simple system audio inputs level control and mute
 - 2) Video audio volume control and mute.
 - d. Service Page (PIN lock service page)
 - 1) Indicate projector lamp hours
 - 2) Provide service contact information
 - 3) Display monitored devices errors
12. In Performance Mode, available touchscreen control options shall include, but not be limited to the following:
 - a. General
 - 1) PIN or password lock, if requested by Owner.
 - 2) Power the system on/off (note: provide shutdown conformation)..
 - 3) Change modes (note: provide mode change conformation).
 - b. Video control
 - 1) Video source select. Source select shall be provided for each display, allowing each display to have unique source selection for each display.
 - 2) Power the video projector on/off.
 - 3) Lower/raise motorized projection screen
 - 4) Video mute.

Scope of Work and Specifications (Continued)

- 5) Video page to have button for back of house video page. Back of house video page will provide control over all back of house monitors power and source selection.
 - 6) If alternate #2 is selected, provide a video page to have button for camera control page. Camera control page shall provide full control over the theatre camera and the instrumental cameras. Camera control page shall show preview of camera feed while selected and controlling camera.
13. Audio Page
- a. Route all audio sources to mixing console in performance mode. Provide screen with text noting mixing console control of audio.
 - b. Back of house paging microphones volume and routing control.
14. Service Page (PIN lock service page)
- a. Indicate projector lamp hours
 - b. Provide service contact information
 - c. Display monitored devices errors.
- D. Intercom system
1. The system shall be repaired to provide a clean and clear intercom system free from noise, buzz, hum, or any other audible distortion or noise.
 2. The intercom program feed shall be corrected to provide clear audio playback from the main program output of the DSP.
 3. AV contractor shall investigate the existing hardwired intercom and correct all issues found, including providing new wiring, cabling, connectors, or connection plates if the cabling, connectors, or other intercom infrastructure is found to be degrading the intercom performance.
 4. Upon completion of the intercom system repair, the AV Contractor shall complete and document the completion of Clear-Com's commissioning procedure.
 5. Intercom speaker stations in the Orchestra, Band, and Choir rooms shall be salvaged, turned over to Owner, and replaced with intercom connection jacks. AV contractor to provide custom plate to cover the existing junction box and mount intercom connector within custom plate. The intercom speaker station in the shop shall remain.
 6. The existing wireless intercom system shall be salvaged, turned over to Owner, and replaced with a new 2.4 GHz wireless Intercom system. The new wireless intercom system shall have a minimum of eight wireless belt

Scope of Work and Specifications (Continued)

packs and headsets. The antennas associated with the wireless intercom system shall be remotely mounted outside of the equipment rack.

E. Additional system upgrades.

1. Floor boxes

a. Stage left and stage right pit cover cable passthroughs shall be replaced by a new custom floor box. The inputs and outputs provided by the pit input and output plates shall be connected to new input output plates installed beneath pit cover pass throughs. The connections shall occur through patch cables allowing for use at either the original location or at the new input out plate locations.

2. Presentation system inputs

- a. The existing presentation inputs shall be rerouted to the new presentation system for control from the DSP and the new control system.
- b. An additional stereo input and a dedicated mic input shall be added to the stage left floor box input plate. These additional inputs shall be connected directly to the DSP and configured as usable inputs in the simple system.
- c. Back-of-house announcement mics will be provided at the stage managers console and in the lighting control booth. The stage manager's back-of-house mic will be mounted on the stage managers rack and have an associated push to talk button. The back-of-house mic in the booth will have a connection below the counter and will be a push-to-talk type microphone. Both microphones will be connected directly DSP and configured to make announcements to the back-of-house spaces.

F. The AV Contractor shall provide all software programming required to provide fully operational systems. The AV Contractor shall be responsible for coordinating programming functionality with the Consultant and Owner.

G. After approval of the installation by the Consultant, and at a time established by the owner, demonstrate the operation of the system and the completed installation. The AV Contractor shall review the operation and make any and all adjustments as directed by the Consultant or Owner.

1.9 ALTERNATE #1 DESCRIPTIONS AND FUNCTIONS

A. Projector

1. Provide a new main projector and long throw lens. The projector shall be a minimum 20,000 lumens laser projector with a minimum WUXGA resolution.

Scope of Work and Specifications (Continued)

2. The projector shall be installed in the current projector's location and be controlled by the new control system.
3. Provide and install any necessary mounts or modifications to the existing mount to provide a stable projector installation free from movement or vibration.

1.10 ALTERNATE #2 DESCRIPTIONS AND FUNCTIONS

A. HD-SDI Cabling

1. Provide new HD-SDI cabling and connectors to the theatre. Cabling shall be provided from the rear-of-house camera positions to the studio control room. Coordinate HD-SDI termination location and type within the studio with owner.

1.11 AV CONTRACTOR'S QUALIFICATIONS:

- A. The work of this section will be contracted to a single firm, referred to as the AV Contractor, for undivided responsibility.
- B. The AV Contractor shall be experienced in the installation of professional AV systems and have completed within the past five years at least three AV system projects of a size and scope comparable to the project described herein.
- C. The AV Contractor shall have factory-certified programmers for the programming of any processing and control equipment used in this project. The AV Contractor shall have a manufacturer certified programmer on staff for any specialized equipment requiring programming for the duration of this project.
- D. The AV Contractor shall have capabilities and in-house facilities for installation, shop fabrication and repair service of professional AV systems.
- E. The AV Contractor shall have on their full-time payroll at least one staff engineer having a minimum five years of experience as a professional AV designer. In place of a qualified staff engineer, the AV Contractor may retain a consulting engineer to direct the project. Prior to bid acceptance, the qualifications of the consulting engineer shall be submitted for the approval of the Consultant. Said staff or consulting engineer shall:
 1. Provide all technical liaisons between the AV Contractor and the Consultant.
 2. Represent the AV Contractor at meetings and conferences, and be present at the job site for all inspections.
 3. Be responsible for supervision of all technical and engineering work required executing the contract, approving, and signing the shop drawings.

Scope of Work and Specifications (Continued)

- F. All Contractors desiring to submit bids for the installation of the audio-video systems specified herein, not listed in below must be qualified in writing by the Consultant by addendum prior to the bid opening.
- G. Bids submitted by Contractors who have not been qualified will not be accepted.
- H. Contractors not listed below, desiring to bid on this installation, shall submit the required qualification statement described above. Qualification shall be subject to Consultant's approval.
- I. Qualified AV Contractors, listed in alphabetical order, are as follows:
1. All Contractors must submit the Qualification package or be preapproved by the owner as an approved Vendor.
 2. Minimum Performance Requirements: To meet the minimum performance requirements, the AV Contractor shall be responsible for:
 3. Each component's conformance with the manufacturer's published specifications and other requirements as stated herein.
 4. Detailed checking of each item of equipment provided each portion of the installation, and of the complete installation to find and remedy any defects therein.
 5. Setting the system gain structure, including initial adjustment of digital signal processing, and amplifier gain controls and, under the direction of the Consultant, making the final adjustment of these items.
 6. Alignment and focus of video displays adjusting for optimized settings. Under the direction of the Consultant, if required, making final adjustments to the displays and associated video processing equipment.
 7. Adjusting/applying EDID management strategy and adjusting color space for all displays in order to display the most optimal image possible for each video source.
- J. Applicable Standards and Codes: In addition to all applicable local and state codes, the work shall be in accordance with the latest revisions of all applicable standards and specifications of the following:
1. NAB - National Association of Broadcasters
 2. UL - Underwriters Laboratories
 3. EIA - Electrical Industries Association
 4. NEC - National Electrical Code
- K. Final Acceptance: Final acceptance shall be contingent upon issuance by the Consultant of a letter of acceptance stating that the work has been completed and is in accordance with the contract documents.
- L. Manufacturers' Qualifications:

Scope of Work and Specifications (Continued)

1. All electronic products shall be designed and marketed by the manufacturer for application in professional video projection, sound amplifying, reproduction and recording systems.
2. All products proposed by the AV Contractor for use in the systems described herein are subject to approval by the Consultant.

1.12 SUBMITTALS

- A. Prior to bidding, attend the mandatory pre-bid walkthrough and submit the following:
- B. AV Contractor Qualification Statement: Non-pre-qualified AV Contractors shall submit electronic media in PDF format containing a statement of the AV Contractor's qualifications for approval.
- C. As a minimum, this submittal shall include the following:
 1. A list of AV systems of comparable size and scope to that described herein, completed by the AV Contractor in the last five (5) years. Show project name and address, year of completion and the name, telephone number, and e-mail address of a person to contact who is a representative of the Owner or User.
 2. A personal resume of formal education and experience of the qualified staff engineer who would direct the work.
 3. A personal resume of the staff member(s) with the required manufacturer certification and control system programming qualifications.
 4. A description of the AV Contractor's capabilities and facilities for rack assembly, shop fabrication, software programming, repair and servicing of AV systems.
 5. A letter from the processor and control system manufacturer(s) certifying that the AV Contractor's software programmers have been factory trained and are qualified to provide the proposed installation.
- D. After the contract has been awarded, but before product procurement or installation begins, submit the following:
 1. Shop Drawings: The shop drawings shall be submitted after award of contract and be of a scale suitable for fabrication. Contractor shall make the following shop drawing submittals:
 - a. A schedule of equipment to be provided for the systems with quantities, including that required for items which are to be fabricated by the AV Contractor. Include cable, connectors, and items which are to be custom fabricated. Do not include extraneous information or products which are not to be used in the project.

Scope of Work and Specifications (Continued)

- b. A set of manufacturer's equipment specifications with detailed technical information describing and illustrating all components and materials to be used in the installation of the AV systems. This includes those items listed by manufacturer and model number in Paragraph 2.03 and any other components needed to provide complete functional systems. Where a manufacturer provides a specification sheet with multiple products or options, highlight the product and options to be provided.
- c. A set of drawings showing items which are to be fabricated by the AV Contractor including, but not limited to, custom panels and receptacle plates. Drawings shall show materials, finishes and panel/control markings when applicable. Custom panels and receptacle plates shall be manufactured only by approved manufacturers. Typical drawings are only acceptable for identical items. Similar items with different marking shall be submitted separately.
- d. A set of drawings including, but not limited to, floor plans, reflected ceiling plans, elevations, and sections detailing the layout and location of equipment. Show equipment to scale and include manufacturer and model numbers on drawings. Include required equipment clearances, projection beam paths, camera fields of view, device aiming and orientation, details showing any AV equipment integrated into furniture, and loudspeaker tap settings on reflected ceiling plans.
- e. A set of one-line block diagrams showing exactly the manner in which the AV Contractor proposes to install the systems. Show all switches, modifications to equipment, relay and control circuits. Show all equipment/apparatus items which are required for realization of the functions described herein. Label each item with manufacturer and model number. Provide wire tags for all connections including wire number, signal type, wire manufacturer and model, and connectors. Show wire numbers as they will be displayed in the field.
- f. Detailed diagrams showing equipment rack layouts. Show equipment manufacturer, model number, electrical loads, electrical power circuit numbers, heat loads, and electrical power sequencing for all equipment. Provide rear views of racks with rear facing equipment. Provide text for custom lamacoid equipment labels.
- g. Detailed drawings of custom millwork and technical furniture to be provided by the Contractor, including but not limited to mix position desks and lecterns. Show all conduit, boxes, and coordination with other trades.
- h. Equipment mounting details showing all video displays, loudspeakers, projection screens, and other equipment requiring mounting or

Scope of Work and Specifications (Continued)

suspension. Show all hardware identified by manufacturer and model number. All rigging, overhead suspension, and mounting shall be reviewed and stamped by a structural engineer licensed in the state where the Work is to be performed.

- i. Any items listed as “submit for review” below.

E. During installation but before system testing, submit the following:

1. Digital Signal Processor configuration files:
 - a. Complete digital signal processor files provided in the DSP manufacturer’s file format.
2. Control System Submittal
 - a. Prior to beginning any programming coordinate with the Owner and Consultant on general expectations.
 - b. Conduct a programming discovery meeting with the Owner to review the following:
 - c. General overall layout
 - 1) Color palette
 - 2) Expected control functions by room
 - 3) Organization of basic and advanced functions
 - 4) Detailed expectations for advanced control of individual components or subsystems
 - 5) Expectations for automated or grouped control functions
 - 6) Any other control related functionality as required by the Owner
 - d. Provide three (3) programming submittals with four revisions to the Owner and Consultant as follows:
 - 1) The first submittal shall be comprised of a list of functions to be provided by the space. One revision shall be made after comment.
 - 2) The second submittal shall be comprised of working touch panel screen shots provided by room. One revision shall be made after comment.
 - 3) The third submittal shall be comprised of working touch panels of each type and loaded with each room’s specific programming. The Owner shall be able to operate the panel and navigate to all pages but will not be able to control any equipment. One revision shall be made after comment.
 - 4) The system shall be reviewed again with the Owner when fully functioning during the initial Consultant post-

Scope of Work and Specifications (Continued)

- construction visit. One revision shall be made after comment.
- 5) During each submittal, the Contractor shall be prepared to discuss and document button-by-button expected functions or sequences as they relate to final system operation.
- F. After the installation of infrastructure is complete but before the installation of AV equipment, submit the following:
1. RF Coordination & RF Remote Antenna Cable Report. Provide a report including the following:
 - a. Provide the operating frequencies of all AV wireless equipment. Provide the output of intermodulation analysis software showing that the selected frequencies will be free from intermodulation interference as well as external interference documented in the FCC database.
 - b. Use an RF scanner used on site to determine if interference sources not in the FCC database are present in the selected frequency bands. Document the results in the report.
 - c. Provide the measured length of RF cable runs to all remote antennas.
 - d. Provide the wireless equipment manufacturer recommended cable RG type for each run.
 - e. Provide the proposed cable to be installed, including manufacturer and model number.
 - f. Provide the attenuation in dB/100ft at the worst-case frequency used by the antenna. Where required, interpolate cable manufacturer provided attenuation data.
 - g. Calculate the signal attenuation of each remote antenna RF cable run and provide the results. Attenuation should not exceed 3dB. If calculated attenuation is greater than 3 dB, select a lower loss cable and perform the calculations again. See Paragraph 2.05 for acceptable cable. If the calculated attenuation is too high using the best specified cable, provide an amplifier to make up for signal loss, but avoid over-amplifying the signal.
- G. After submittals above have been approved but before the initial post-construction Consultant site visit, submit the following:
1. Testing Report. Provide a report documenting the results of system tests described in Paragraph 3.04. The Consultant will not schedule the initial post-construction site visit until this report has been delivered.
- H. After the initial post-construction Consultant site visit, submit the following:

Scope of Work and Specifications (Continued)

1. A signed copy of the initial post-construction Consultant site visit punch list with each completed item initialed. The Consultant will not schedule the final post-construction or visit until this document has been delivered.
- I. After the final Consultant site visit and final punch list has been completed, submit the following:
1. Operation Manual: Provide the following in a neatly bound binder with tabbed dividers between sections. Also, provide a digital copy in PDF format on a CD-ROM or USB solid state memory drive.
 - a. Title Page
 - b. Table of Contents
 - c. Description of each system including key features and operational concepts
 - d. Setup diagrams and instructions to use in typical situations as directed by the Owner
 - e. Single-line block diagrams showing all major system components
 - f. Manufacturer's operation manuals and information sheets for equipment intended for operation by system users
 - g. A sheet of web links to relevant industry resources such as:
 - 1) Key schedule cross-referencing all keys to their respective functions and extra copies of all keys required to open or operate equipment specified in this section.
 2. Maintenance Manual: Provide the following in a neatly bound binder with tabbed dividers between sections. Also, provide a digital copy in PDF format on a CD-ROM or USB solid state memory drive.
 - a. Title Sheet
 - b. Table of Contents
 - c. Company name, address, telephone number, e-mail address, website, and contact name for system service or maintenance
 - d. Listing of all equipment and materials with names of manufacturers and model numbers or part numbers
 - e. Product manufacturer's warranties and a typed one-year system warranty explicitly covering all materials and labor
 - f. Manufacturer's service manuals for all major equipment items
 - g. A recommended preventative maintenance schedule with reference to the applicable pages in the manufacturer's maintenance manuals. Where the manufacturer provides inadequate information, provide the information necessary for proper maintenance.
 - h. Provide a working copy of the latest version of all software required to operate or configure the systems specified herein.

Scope of Work and Specifications (Continued)

- i. All software shall be fully documented, and that documentation included.
- j. Software shall be furnished on a CD-ROM or USB solid state memory drive attached to the binder.
- k. All user definable software configurations and/or programming shall become the sole property of the Owner. This includes all source code, source code copyrights, and related documentation.

3. Training Materials as described herein.

4. As-Built Drawings

- a. Maintain a full set of shop drawings at the project site marked up to indicate actual locations of equipment, boxes, and other items called for in this section. After the final Consultant site visit, compile the mark-ups into a set of as-built drawings and provide to the General Contractor, Architect, and Consultant.

1.13 WARRANTY

- A. Provide a written one (1) year warranty, signed by the Contractor, due on the date of the final acceptance.
- B. Include the following provisions:
- C. Warranty all equipment and the installation to be free of faulty workmanship.
- D. Warranty all components and materials to be free of defects for a period of one (1) year from the date of final acceptance.
- E. Paint and exterior finishes, fuses and lamps are excluded from above warranty, except when damage or failure results from defective materials or workmanship covered by the warranty.

1.14 SERVICE WARRANTY

- A. Replace defective materials and repair faulty workmanship within forty-eight (48) hours of discovery at no cost to the Owner during the period of the warranty.
- B. The Contractor shall be available on call and on eight (8) hour notice during the first month following acceptance of the system, to assist the Owner's representatives in any problems which may arise during the initial period of operation.

Scope of Work and Specifications (Continued)

- C. At no additional charge, provide maintenance service for a period of one (1) year after final acceptance of installation. This service shall consist of at least one visit six months and one visit eleven months after final acceptance for checking the equipment and making any necessary adjustments.
- D. If, during the warranty period, any component is out of service for more than seven (7) days due to unavailability of parts or service, supply and install an identical new component. If an identical component is not available, substitute equivalent equipment, but only with the approval of the Owner.

PART 2 - PRODUCTS**2.1 MATERIALS**

- A. All materials, equipment and apparatus shall be new and of the latest design or model offered for sale by the manufacturer.
- B. Principal items of equipment and apparatus are identified herein by part number and manufacturer. Alternate part numbers and manufacturers are identified in instances in which equivalence has been determined.
- C. For all items which are identified by part number and manufacturer, performance specifications which are published in the most recent manufacturer's data sheets available at the time of bidding this contract shall be applicable to the present work as though fully written out herein.
- D. For those items which are not identified by part number and manufacturer, the AV Contractor may select items which conform to the functional and/or technical specifications. For all such items, the AV Contractor shall submit exact make and model for approval including all technical data which is available from the supplier or manufacturer.

2.2 EQUIVALENT EQUIPMENT

- A. All equipment listed by make/model below represents a minimum standard of performance based on specifications supplied by the manufacturer. All equipment substitutions shall be submitted to the Consultant for review and approval prior to bid. It is the responsibility of the AV Contractor to prove that requested substitutions are equivalent to the specified product and compatible with the overall system design, intent, and electrical infrastructure. If requested by the Consultant, the AV contractor shall submit a sample of any proposed substitutions.

Scope of Work and Specifications (Continued)**2.3 EQUIPMENT**

Description	Manufacturer	Model No.	Qty.
Control Devices			
48-Port POE+ Network Switch	Cisco	3650 Series	1
<i>Submit exact model number for review based on requirements identified in this narrative and drawing. Supply switch complete with all necessary accessories to meet performance requirements identified herein. Coordinate any additional requirements with Owner IT.</i>			
Network Patch Panel	Belden	Submit for Review	1
Control Processor	Crestron	CP3N	1
10" Tabletop Touchscreen	Crestron	TSW-1060-NC-B-S	2
w/ Tabletop Kit	Crestron	TSW-1060-TTK-B-S	2
10" Rackmount Touchscreen	Crestron	TSW-1060-NC-B-S	1
w/ Rack Mount Kit	Crestron	TSW-1060-RMK-2	1
Display Devices			
48" LCD Display	Planar	SL4851	2
w/ Tilt Mount	Chief	XTM1U	2
FOH 22" LCD Preview Monitor	Planar	PXL2270MW	1
w/ Dual Swing Arm Wall Mount	Chief	TS118SU	1
Control Booth LCD Preview Monitor	Planar	PXL2270MW	1
w/ Desktop Stand	Planar	997-7029-00	1
Video Devices			
Wall Plate Video Encoder	AMX	NMX-ENC-N1115-WP	7
Video Decoder	AMX	NMX-DEC-N1222A	6

Description	Manufacturer	Model No.	Qty.
w/ Mounting Wings	AMX	MX-ACC-N9101	6
Audio Network Decoder	AMX	NMX-ATC-N4321	1
w/ Rack Shelf	AMX	NMX-ACC-N9102	1
Video Network Controller	AMX	SC-N8001	1
PTZ Camera	Panasonic	AW-UE70	1
w/ Wall Mount	Nigel B.	NB-AVCB	1

Audio Devices			
Stage Manager's Paging Mic	Shure	503BG	1
w/ 12" Gooseneck and XLR	Shure	G12-CN	1
Control Booth Desktop Paging Mic	Shure	522	1

Intercom Devices			
Wireless Intercom Base Station	Clear-Com	BS410	1
w/ Remote Antenna Plate	Clear-Com	Submit for Review	1
Wireless Intercom Beltpacks	Clear-Com	BP410	8
w/ Headset	Clear-Com	Submit for Review	8

Accessories			
Custom Floor Boxes	Ace Backstage	Quote # 100168	2
Connectors, Connector Plates, Cables, Hardware, Accessories, Etc.		Submit for Review	

Alternate #1

Description	Manufacturer	Model No.	Qty.
Projector	Panasonic	PT-RZ21KU	1
w/ Lens	Panasonic	Submit for Review	1
Measure projector throw distance in field and submit proposed lens for review.			
w/ Mount	Custom	Custom	1
Evaluate existing mount, field verify if mount can be re-used. Provide new mount or modify existing mount if required.			

Scope of Work and Specifications (Continued)

2.4 EQUIPMENT PERFORMANCE SPECIFICATIONS

- A. The performance specifications for all components shall be as published in the most recent manufacturer's data sheets available at the time of bidding this contract and shall be applicable to the present work as though fully given herein.

2.5 CABLING AND CONDUCTORS

- A. Installed microphone and line level cable:
1. Cable shall be 22 AWG stranded tinned copper, UL Listed, NEC Type CM CMR or CMP, PVC jacketed, twisted pair, with 100% coverage overall foil shield. Where required by code installed microphone and line level cables shall be plenum rated.
 2. Approved non-plenum cables:
 - a. Belden 8451, 9451
 - b. West Penn 77291
 - c. Liberty 22-1P-EX
 - d. Clark SPA22GS
 - e. Submit proposed alternative for approval
 3. Approved plenum cables:
 - a. Belden 9451P
 - b. West Penn D25291
 - c. Liberty 22-1P-CMP-EZ
 - d. Clark SPA22GSP
 - e. Submit proposed alternative for approval
- B. Portable microphone, line level, and single channel analog party line intercom cable:
1. Cable shall be 20 AWG stranded tinned copper, EPDM Jacket, with minimum 85% coverage tinned copper braid shield.
 2. Approved portable microphone cable:
 - a. Belden 8412
 - b. Clark FF220
 - c. Submit proposed alternative for approval
- C. RF cable for wireless microphone antennas and assisted listening antennas:
1. Note: Before installing or ordering RF cable, submit wireless microphone cable report.
 2. Cable type (RG designation) shall be as specified by equipment manufacturer and dependent on cable length.
 3. Approved non-plenum RG58/U
 - a. Belden 8262

Scope of Work and Specifications (Continued)

- b. West Penn 812, 813
 - c. Liberty RG58-CMR
 - d. Clark RG58/U
 - e. Submit proposed alternative for approval
 - 4. Approved non-plenum RG8/X:
 - a. Belden 9258
 - b. West Penn 807
 - c. Clark RG8X
 - d. Submit proposed alternative for approval
 - 5. Approved non-plenum RG213/U:
 - a. Belden 8267
 - b. Clark RG213/U
 - c. Submit proposed alternative for approval
 - 6. Approved non-plenum RG8/U:
 - a. Belden 9913
 - b. West Penn 808F
 - c. Liberty RG8-CMR
 - d. Clark RF50LL
 - e. Submit proposed alternative for approval
 - 7. Approved plenum RF cables:
 - a. Approved plenum RG58/U:
 - b. Belden 88240
 - c. West Penn 25810
 - d. Liberty RG58-CMP
 - e. Clark RG58-PLEN
 - 8. Submit proposed alternative for approval
 - a. Acceptable RG8/U:
 - b. Belden 89913
 - c. Liberty RG8-CMP
 - d. Clark RG8PL
 - e. Submit proposed alternative for approval
- D. Network Audio/Video Cable
- 1. Cable shall be UL listed Cat 6A, F/UTP-foil shielded, four pair, 23AWG solid bare copper conductors as recommended by AMX.
 - a. Approved non-plenum network audio/video cable:
 - b. Belden 10GX62F
 - c. Liberty 24-4P-L6ASH
 - d. West Penn 4246AF
 - e. Clark CN423C6AS

Scope of Work and Specifications (Continued)

- f. Submit proposed alternative for review
2. Approved plenum network audio/video cable:
 - a. Belden 10GX63F
 - b. Liberty 24-4P-P-L6ASH
 - c. West Penn 254246AF
 - d. Clark CN423C6ASP-6
 - e. Submit proposed alternative for review
- E. HDMI Cables
 1. HDMI cables shall be factory terminated with molded connectors. HDMI cables shall conform to Premium High Speed HDMI Cable specifications and support resolutions up to 4K @ 60 Hz (4096x2160).
 2. Approved non-plenum HDMI cables
 - a. Extron HDMI Ultra (for cable lengths less than or equal to 12')
 - b. Extron HDMI Pro (for cable lengths less than or equal to 25')
 - c. Liberty HDPMM (for cable lengths less than or equal to 10')
 - d. Belden HDE-FB Series (for cable lengths less than or equal to 15')
 - e. Submit proposed alternative for approval
 3. Approved plenum HDMI cables
 - a. Liberty P-HDM-M Series
 - b. Middle Atlantic/Cables to Go
- F. VGA Cables
 1. VGA cables shall be factory terminated with molded connectors unless otherwise noted.
 2. Approved non-plenum VGA Cables
 - a. Extron VGA M-M MD / VGA M-F MD
 - b. Liberty E-VGAM-M / E-VGAM-F
 - c. Belden VGA-FB Series
 - d. Submit proposed alternative for approval
 3. Approved plenum VGA Cables
 - a. Extron VGAP M-M MD / VGAP M-F MD
 - b. Liberty G-VGAM-M / G-VGAM-F
 - c. Submit proposed alternative for approval
- G. 3G-SDI Cables
 1. 3G-SDI cables shall be RG-59 coax
 - a. Approved non-plenum cables
 - 1) Belden 1505A
 - 2) Belden 1505F (Flexible)
 - 3) Submit proposed alternative for approval

Scope of Work and Specifications (Continued)

- b. Approved plenum cables
 - 1) Belden 1506A
 - 2) Submit proposed alternative for approval.

2.6 CONNECTORS

- A. 3-pin XLR cable connectors shall be 3-pole XLR type connectors, with solder cups, with black metal housing, and with gold contacts.
 - 1. Approved 3-Pin XLR cable connectors
 - a. Neutrik NC3FXX-B, NC3MXX-B
 - b. Submit Proposed Alternative for Approval
 - 2. Approved 3-Pin XLR chassis connectors
 - a. Neutrik NC3FD-L-B-1, NC3MD-L-B-1
 - b. Submit proposed alternative for approval
- B. RCA connectors
 - 1. RCA cable connectors shall be two pole RCA type, with gold body, with gold contacts, with solder cups, with cable clamp.
 - 2. Approved RCA cable connectors
 - a. Neutrik NYS352
 - b. Switchcraft 3502A
 - c. Canare F09, F10
 - d. Submit proposed alternative for approval
 - 3. Approved RCA chassis connectors (D sized connector)
 - a. Neutrik NF2D-B
 - b. Canare RJ-RUD
 - c. Submit proposed alternative for review
 - 4. Approved RCA chassis connectors (panel mount)
 - a. Neutrik NYS367
 - b. Switchcraft 3501FPX
 - c. Canare RJ-R
 - d. Submit proposed alternative for review
- C. 1/8" mini (3.5mm) TRS connectors
 - 1. 1/8" mini cable connectors shall be three pole, with black body, with gold contacts, with solder cups, with cable clamp.
 - 2. Approved 1/8" mini straight connectors
 - 3. Neutrik NYS231BG
 - 4. Switchcraft 35HDBAU
 - 5. Canare F-12
 - 6. Submit proposed alternative for review

Scope of Work and Specifications (Continued)

7. Approved 1/8" mini right angle connectors
 8. Neutrik NTP3RC-B
 9. Switchcraft 35HDRABAU
 10. Submit proposed alternative for review
 11. Approved 1/8" mini chassis connectors (D sized panel connector)
 12. Switchcraft EH35MMSSCB
 13. Submit proposed alternative for review
 14. Approved 1/8" mini chassis connectors
 15. BTX CA-C493
 16. RCI Custom RCICH-30-493A
 17. Submit proposed alternative for review
- D. Cat6A 8P8C (RJ45) Connectors:
1. Connectors shall be rated up to TIA Category 6A performance.
 2. Approved Cat6A plug connectors
 - a. Belden 10GX series
 - b. Submit proposed alternative for review
 3. Approved Cat6A jack connectors
 - a. Belden 10GX series
 - b. Submit proposed alternative for review
- E. Ruggedized Cat6A 8P8C (RJ45) Connectors:
1. Cat6A RJ45 cable connectors shall have black ruggedized locking shell, with chuck type strain relief.
 2. Cat5 RJ45 chassis connectors shall be Ruggedized connector with CAT6A component compliance according to ISO/IEC 11801 and TIA/EIA 568-C.2, latch lock system, PoE+ compliant according to 802.3at Type2, intermateable with the Neutrik etherCON CAT5 range.
 3. Approved shielded Cat6A RJ45 cable connectors
 - a. Neutrik NE8MX6-B
 - b. Submit proposed alternative for review
 4. Approved Cat6A RJ45 punch down chassis connectors
 - a. Neutrik NE8FDX-Y6-B
 - b. Submit proposed alternative for review
- F. 50-Ohm BNC Connectors (RF):
1. 50-Ohm BNC connectors shall have gold plated brass contacts, PTFE insulator, and a bayonet coupling mechanism.
 2. Cable Crimp Plugs
 - a. Approved 50-Ohm BNC cable crimp plug for RG-58
 - 1) Amphenol 031-320

Scope of Work and Specifications (Continued)

- 2) Canare BP-C4
 - 3) West Penn CN-BM53-13-50
 - 4) Submit proposed alternative for review
 - b. Approved 50-Ohm BNC cable crimp plug for RG8/X
 - 1) Amphenol 112533
 - 2) West Penn CN-BM53-8X-50
 - 3) Submit proposed alternative for review
 - c. Approved 50-Ohm BNC cable crimp plug for RG213/U
 - 1) Amphenol 112627
 - 2) West Penn CN-BM53-8-50
 - 3) Submit proposed alternative for review
 - d. Approved 50-Ohm BNC cable crimp plug for RG8/U
 - 1) Amphenol 112563
 - 2) Submit proposed alternative for review
 3. Bulkhead Crimp Jacks
 - a. Approved 50-Ohm BNC bulkhead crimp jack for RG-58
 - 1) Amphenol 031-342
 - 2) Submit proposed alternative for review
 - b. Approved 50-Ohm BNC bulkhead crimp jack for RG8/X
 - 1) Amphenol 112602
 - 2) Submit proposed alternative for review
 - c. Approved 50-Ohm BNC bulkhead crimp jack for RG8/U
 - 1) Amphenol 112604
 - 2) Submit proposed alternative for review
 4. Bulkhead Pass-thru Jacks
 - a. Approved 50-Ohm BNC pass-thru jacks
 - 1) Amphenol 000-4525
 - 2) Canare BJ-JR, BJ-JRU, BJ-JRUD
 - 3) Liberty PC-B16-Coupler
- G. 75-Ohm BNC Video Connectors (3G-SDI)
 1. Cable Connectors
 - a. Approved 75-Ohm BNC Cable Connectors
 - 1) Neutrik NBNC75BFG7X
 - 2) Submit proposed alternative for review
 2. Bulkhead Connectors
 - a. Approved 75-Ohm BNC Bulkhead Connectors
 - 1) NBB75DFGX
 - 2) Submit proposed alternative for review

Scope of Work and Specifications (Continued)

PART 3 - EXECUTION

3.1 COORDINATION

- A. The AV Contractor shall coordinate this work with the other electrical work and the work of other trades.
- B. Locations shown on AV Drawings are approximate. Refer to Architectural drawings for dimensions.

3.2 FABRICATION

- A. Design/Engraving:
 - 1. All equipment controls, receptacles and all indicators shall have, unless otherwise noted, lamacoid, permanently engraved, or silk screened fully descriptive identification labels. The resolution of silk screened labels shall not be less than 90,000 dots/sq. in.
 - 2. The word "engraved" shall mean that the identification shall be engraved into the indicated panel, plate or control surface.
 - 3. All engraving shall be with 5/32" high characters, unless otherwise noted, and shall be filled with engraver's enamel of a contrasting color.
- B. Custom Plates:
 - 1. Receptacles shall be screwed, bolted or flush-riveted to the plate.
 - 2. Plates shall be marked to indicate function and circuit of the receptacle, for example: MICROPHONE.
- C. Terminals and Terminations:
 - 1. Microphone cables shall not be spliced or otherwise interrupted from termination to termination. All cables shall have visible adhesive identifying markers on each end.
 - 2. Cabling in terminal cabinets shall be tied and clamped neatly to backboards or cableforms.
 - 3. Terminals shall, unless otherwise specified, be one of the following types:
 - a. Wire-wrap type terminal block.
 - b. Barrier strips with screw terminals.
 - 4. Each terminal strip shall have a legibly marked identification strip.
- D. Structural Assemblies:
 - 1. Provide holes required for securing other components or assemblies to structural steel framing and for passage of other components through steel framing members as shown on final shop drawings. Cut, drill or punch

Scope of Work and Specifications (Continued)

holes perpendicular to metal surfaces. Do not flame cut holes or enlarge holes by burning.

2. In fabricating mounting brackets and other steel components requiring bends, the radii of the bends shall not be less than three times the thickness of the steel being bent.
3. All bolts and nuts used in the fabrication of mounting hardware shall be Grade 5 or better.

3.3 INSTALLATION

A. General:

1. Keep the job adequately staffed at all times. Designate a field supervisor to be present on the job site and in responsible charge during all phases of installation and check out. Maintain same supervisor throughout the execution of the work unless circumstances beyond the control of the AV Contractor intervene.
2. Install the system in cooperation with other trades in order to achieve coordinated progress and satisfactory final results. Watch for conflicts with work of other trades on the job.
3. Execute without claim for extra payment, moderate moves or changes as are necessary to accommodate other equipment or preserve symmetry and pleasing appearance.
4. The AV Contractor shall do all cutting and patching necessary for proper installation of the system and shall repair any damage done by himself or his workmen. Any required penetration of slabs or CMU walls shall be made by a cutting method rather than by a concussive method.
5. On completion, remove all rubbish and unused materials from the premises and clean the premises and all equipment where dirtied by removing all dirt, dust, stains and fingerprints.

B. Equipment Racks:

1. Supply completely assembled and fully shop-tested racks with all internal cabling completed as required to provide a complete system, to the extent that such items are not provided by others.
2. Install rack mounted equipment with black 10-32 star post drive security screws head screws with nylon washers, Middle Atlantic HTX or equivalent.
3. Wiring internal to equipment racks shall be installed neatly and bundled according to function. Separate power cables as far as possible from microphone level and line level signal cables. Provide lacer bars, horizontal cable managers, and vertical cable managers where required. Attach cable bundles every 6" to cable management.

Scope of Work and Specifications (Continued)

4. Provide security covers for non-user-operated equipment having front panel controls. Where required by equipment manufacturer security covers shall be vented. Install covers at the conclusion of system test, tuning, and equalization.
 5. All blank rack panels and connector panels shall be flanged to increase stiffness. Flat panels will not be accepted.
 6. All equipment not available with an integral rack mounting kit shall be provided with a rack shelf including custom faceplate that fully covers any open space around the device. Fasten equipment to rack shelf where appropriate.
 7. Provide rack slides for all equipment requiring access to side or top panels for routine adjustment or cleaning.
 8. All open areas on front faces shall be covered with blank panels. Where obstructions prevent the installation of full rack space blanks, install ½ or 1/3 space blanks.
 9. Heavy equipment, such as power amplifiers, shall be supported from rear rack rails in addition to front attachments. All equipment in portable equipment racks shall be supported from rear rails in addition to front attachments.
 10. Locate all rack mounted equipment requiring adjustments, cleaning or similar attention so that it will be accessible. Ensure that equipment with sliding shelves, portable device docks, or user interaction functions operate smoothly without obstruction.
- C. Equipment, Boxes, Plates:
1. Secure all equipment, except equipment designed to be portable, firmly in place, including loudspeakers, racks, amplifiers, cables, and displays.
 2. Install work neatly, with boxes, equipment, etc. plumb and square.
 3. Locate all apparatus requiring adjustments, cleaning or similar attention so that it will be accessible.
 4. All supporting structures and enclosures supplied by the AV Contractor, not having a standard factory paint finish, shall be painted. Paint specifications and color shall be supplied by the Architect.
 5. Color and finish of blank panels and custom assembly panels shall match adjacent equipment panels to the extent possible. Paint all conduit and boxes to match adjacent surfaces. The finish of wall mounted receptacle panels shall be coordinated with the Architect.
 6. The equipment specified herein must be capable of operation in environments of normal humidity, dust and temperature. AV Contractor should avoid installing equipment where extreme environmental conditions

Scope of Work and Specifications (Continued)

can occur and shall be responsible for protection of equipment and related cabling from such conditions.

7. The AV Contractor shall take precautions to prevent electromagnetic and electrostatic hum.
8. Install the equipment to provide safe operation. Provide ventilation as required to maintain equipment within the manufacturers specified temperature limits.
9. Any obstructions or conflicts in the rated coverage pattern of loudspeakers not shown on design drawings shall be reported to the Consultant. If unreported obstructions are found during testing, the Contractor shall move loudspeakers without claim for extra payment.

D. Installed Cabling & Conduit:

1. Provide all cables necessary for interconnection of permanently mounted equipment. Use terminations required to achieve full function of equipment as specified herein.
2. All cables shall be continuous and only spliced where approved on shop drawings.
3. Exercise care in cabling to avoid damage to the cables and to the equipment. Make all joints and connections with rosin-core solder or with mechanical connectors approved for Class I cabling.
4. Run lines in separate metallic conduits for microphone level circuits (up to -20 MBm), line level circuits (up to +30 dBm), loudspeaker circuits (above +30 dBm) and power circuits. Non-metallic or PVC conduits for AV system cabling are not acceptable unless otherwise noted. Use only cables which are insulated from the conduit and from each other for the entire conduit length.
5. Ground audio cable shields at both ends. Provide green heat shrink tubing for all exposed cable shields or shield drain conductors at termination points.
6. Provide the separation shown in the following chart between conduits carrying the following signal types. Where conduits must cross and separation cannot be maintained, cross at a 90 degree angle.

E. Wire Terminations:

1. Make connections using rosin-core solder or approved mechanical connectors.
2. Terminate three pin XLR connectors according to AES12-1992 (r2004) standard: Pin 1 = Shield, Pin 2 = Audio High (+), Pin 3 = Audio Low (-). Do not connect shields to connector shells.
3. Field terminated Speakon connectors shall be terminated with screw terminals. Do not tin wires or solder connectors. Strip 20mm from cable

Scope of Work and Specifications (Continued)

- jacket and 8 mm from conductor insulators as directed by manufacturer. Use only an appropriate Ponzidrive bit when tightening screw terminals.
4. Speakon chassis connectors shall be terminated with 4.8mm x 0.5mm Faston crimp connectors.
 5. Provide only factory terminated HDMI, DVI, and DisplayPort digital video cables. Field terminated cables shall not be acceptable.
- F. Portable Cabling: Provide portable cabling required to connect all portable equipment specified by this section.
- G. Labeling:
1. Clearly, logically and permanently mark switches, connectors, jacks, relays, receptacles, cables and cable terminations.
 2. Etch, engrave, silk screen or apply in a similar permanent manner all legends and markings on all custom panels and receptacle plates. Embossed tape, press type, etc., are not acceptable.

3.4 TESTING

- A. Instrumentation: The AV Contractor shall provide the following test equipment for use during initial tests and adjustments and during acceptance testing and final adjustment of the system:
1. Sound Level Meter: Shall meet ANSI S1.4 specifications for Type I sound level meters. SMAART with a Type I microphone and calibrator is acceptable.
 2. Sine Wave Generator: Continuously variable from 20 Hz to 20,000 Hz within +1 dB with less than 0.5% THD.
 3. Pink Noise Generator: Generator shall produce at least 1 volt RMS of pink noise.
 4. AC Voltmeter: With frequency response of +1 dB from 20 to 20,000 Hz, 0.0001 volts to minimum input impedance of 0.1 megohm.
 5. Data Communications Cable Verifier: Fluke MicroScanner2 or equivalent.
 6. Polarity checker: Studio Six Digital AudioTools speaker polarity module or equivalent.
 7. All other equipment required to conduct tests, equipment setup and checkouts outlined in this specification.
- B. System compliance testing and documentation. The Contractor shall perform the following tests and provide a compliance document confirming the results of all tests prior to the final Consultant site visit.
1. Audio System Tests:

Scope of Work and Specifications (Continued)

- a. Emergency Systems Muting: Coordinate with others to test emergency system mute. Document verification of system mute.
- b. Cabling:
 - 1) Check each microphone and line level cable for continuity of all conductors. Verify connectors are terminated in accordance with AES12-1992 (r2004). Document compliance on each line.
 - 2) Check each loudspeaker line for continuity. Positive polarity shall be marked with red or white. Negative polarity shall be marked with black.
 - 3) Data communications cabling shall be tested with a cable verifier. Document compliance.
- c. Loudspeaker Physical Alignment: Verify the height, vertical angle, and horizontal angle of all loudspeakers with a laser inclinometer. Document the measured aiming angles.
- d. Loudspeaker Line Impedance: Measure and document the impedance of each loudspeaker and associated loudspeaker line. Using an audio impedance meter (not DC resistance). Measure full range loudspeaker impedance at 200 Hz and 2000 Hz. Measure subwoofer impedance at 50 Hz and 100 Hz. Measure high frequency driver impedance at 4000 Hz and 8000 Hz. A full range impedance sweep using a software impedance meter is also acceptable.
- e. Loudspeaker Polarity: Perform polarity checks on all independent loudspeakers. Loudspeakers utilizing active crossovers shall have polarity checked on all individually amplified components. Results from all polarity checks shall be included in compliance documentation.
- f. Freedom from Buzzes, Rattles and Objectionable Distortion:
 - 1) Apply a slow continuous sine wave sweep at a level 3 dB below rated power amplifier output voltage. Listen carefully for buzzes, rattles, and objectionable distortion. Correct any causes of these defects, unless the cause is clearly outside the sound amplification system equipment and installation, in which case, the cause shall be brought to the attention of the Consultant.
 - 2) Listen for audible buzzes or noise in the audio system. Coordinate the operation of other building equipment, including but not limited to dimmers, motors, stage lifts, and HVAC equipment to ensure that normal operation of such devices does not cause audible noise in the sound system.

Scope of Work and Specifications (Continued)

- g. Assistive Listening Systems: Verify that the system covers all portions of the audience area with no audible signal dropouts.
 - h. Gain Control Settings: Establish tentative normal settings for all gain controls. All gain controls on rack-mounted equipment shall be adjusted for optimum signal-to-noise ratio and signal balance. Settings may require further adjustment by the AV Contractor as a result of testing by the Consultant. After final gain and attenuator settings have been established, mark all control settings with an adhesive indicator dot or arrow.
 - i. Freedom from Switching Transient Noise: Operate all control switches and relays, while listening for clicks and pops in the system outputs. Eliminate any found.
 - j. Listening Test: Listen to normal program material to be sure that there are no remaining defects.
2. Video System Tests: The Contractor shall perform the following tests prior to the initial Consultant site visit:
- a. Viewing Test: Apply SMPTE split field color bars to an input of the video system and adjust all displays and projectors. Adjust hue and saturation controls for optimum picture quality and colorimetric uniformity. Route program material from each video source to each display. Watch for ghosting and any effects of excessive VSWR. Correct and defects found.
 - b. Video Projector Alignment: Align all video projector for optimal focus and horizontal and vertical linearity with a cross-hatch signal applied to the projector.
 - c. Digital Video Distribution: The digital video distribution systems shall meet all the requirements of the manufacturer as described in the manufacturer's specifications. Including available network bandwidth, EDID management, and video latency, embedded audio passes and routes properly, and HDCP compliance.
 - d. Resolution and Signal Types: Test all available inputs for standard resolutions and all available signal types.
 - e. Video Quality:
 - 1) Confirm the absence of processing errors throughout the entire video system chain using calibrated test generators or applicable software. Confirmation must specifically include but not limited to the following parameters:
 - a) Frequency Response
 - b) Compression Fidelity
 - c) Subjective Image Fidelity

Scope of Work and Specifications (Continued)

- d) Display Gamma
 - e) Color Conversion Accuracy
 - f) Color Matrix Mismatch
 - g) White and Black Clipping
 - h) Color Phase and Gain
 - i) Lip-Sync
 - j) Chroma Motion
 - k) Error/Noise
- 2) The digital video distribution systems shall meet all the requirements of the manufacturer as described in the manufacturer's specifications. Including available network bandwidth, EDID management, and video latency, and HDCP Compliances.
3. Reporting: Upon completion of above tests and any necessary adjustments, submit a written report presenting test results for review by the Consultant prior to acceptance testing, final tuning, and demonstration. With this report, submit written certification that the installation conforms to the requirements stated herein, is complete in all respects, and is ready for inspection, testing, and final tuning.

3.5 TEST, TUNING, AND EQUALIZATION PROCEDURE**A. Test Phase:**

1. Upon approval of the preliminary test report by the Consultant, schedule the initial post-construction Consultant site visit. During the visit, demonstrate the operation of each major component of the system and the completed installation. After demonstration, assist as required in the following acceptance tests:
 - a. Listening Tests: These tests may include speech intelligibility survey and subjective aural evaluations by observers at various positions under various operating conditions, using live speech and/or recorded music material.
 - b. Equipment Tests: Any measurements of frequency response, distortion, noise or other characteristics and any operational tests deemed necessary may be performed on any item or group of items to determine conformity with these requirements.
2. If the need for adjustment or modification becomes evident during demonstration and testing, continue working until the installation operates fully in accordance with the requirement of this specification. The

Scope of Work and Specifications (Continued)

Consultant will prepare a punch list detailing any deficiencies found during the test phase.

3. The tuning and equalization procedure shall only take place once all work has been completed and tested by the Consultant.

B. Tuning and Equalization Phase:

1. After punch list items identified in the test phase have been completed, assist the Consultant in performing the tuning and equalization phase.
2. During the tuning and equalization phase, AV system components shall be adjusted by the contractor under the direction of the Consultant to optimize the performance of the AV systems. The Contractor will document all changes and include them in the as built drawings. The AV systems installation will not be considered complete until Consultant has completed the system commissioning.
3. The tuning and equalization phase requires that the location of the Work be absolutely quiet. No other work may be performed during the procedure, except that which generates no noise. If the room is not quiet upon the arrival of the Consultant and other work cannot be stopped for the duration of the visit, the Consultant will reschedule the tuning and equalization procedure at additional cost.
4. The Contractor shall provide a technician familiar with the Work during the test, tuning, and equalization procedure. It is estimated that this technician should be available for approximately one eight hour day. This time shall be solely dedicated to the tuning and equalization procedure and does not include time spent making the system functional or completing items on the test phase punch list.
5. The Test, Tuning, and Equalization procedure shall take place before the system is turned over to the Owner or training occurs.

3.6 DOCUMENTATION

A. Project Record:

1. The AV Contractor shall supply clean As-Built prints of the system drawings which show all changes which were made during fabrication and installation.
2. The AV Contractor shall supply clean prints of all previously submitted and approved shop drawings, revised to show all changes which were made during fabrication and installation.
3. The AV contractor shall print a full sized copy of the system one line diagram on rigid foamcore board and post it in a convenient location near the equipment rack.

Scope of Work and Specifications (Continued)**B. Maintenance Manual:**

1. The AV Contractor shall provide technical information for all electronic apparatus, including but not limited to schematic diagrams and parts lists, manufacturer's installation instructions, operating instructions and technical specifications.
2. The AV Contractor submittal shall include all shop drawings prepared and used by the AV Contractor, as well as those which were not required to be submitted for approval. This shall include, but not be limited to, wiring diagrams, schedules for identification of building wiring and installation details useful to a maintenance technician.

C. Instruction Manuals:

1. Provide two (2) copies of an Instruction Manual to the Owner containing the following:
 - a. Title Page
 - b. Table of Contents
 - c. Description of each system including key features and operational concepts
 - d. Setup diagrams and instructions to use in typical situations as directed by the Owner
 - e. Single-line block diagrams showing all major system components
 - f. Manufacturer's operation manuals and information sheets for equipment intended for operation by system users
 - g. Key schedule cross-referencing all keys to their respective functions and extra copies of all keys required to open or operate equipment specified in this section.

3.7 TRAINING AND INSTRUCTION

- A. Minimum of eight (8) Hours of training shall be provided by the AV Contractor to Owner-designated representatives for all installed systems at a time mutually agreed upon between Owner and AV Contractor. The total training time may require that the training be broken into multiple sessions. No training session shall last longer than (4) hours.
- B. All training shall be recorded by the AV Contractor. AV Contractor shall provide two (2) copies of the training video on a format suitable to the Owner. AV Contractor will supply the equipment necessary to record the training sessions.
- C. During the training, the participants shall be given opportunities for "hands-on" experience with operating the controls. There shall be visual and audible

Scope of Work and Specifications (Continued)

demonstrations using the systems themselves as aids. Personnel for instruction and training for the AV systems shall be designated by the Owner.

Ongoing Maintenance

Provide the District with an option for extended maintenance and service on these systems. The District would like a defined warranty for all components in this solution. In addition please provide the District with options for a service contract for this system. The Successful Contractor shall provide service options for the District to include one (1), three (3), and five (5) year options. This shall also include the options of levels of maintenance from 24/7 emergency times, four hour maximum, 24 hour maximum. Provide all levels with a definition as well as a cost for each level of maintenance.

AWARD OF CONTRACT

- A. The District shall award a contract to a bidder through issuance of a Purchase Order. A Letter of Intent may be initially provided until a Purchase Order is available. The General Provisions, Terms and Conditions, and Technical Specifications in the Invitation to Bid or Request for Proposal, any addenda, Bidders Proposal and the Purchase Order are collectively an integral part of the contract between Westminster Public Schools and the successful bidder. Accordingly, these documents shall constitute a binding contract without further action by either party.
- B. The District reserves the right to reject any and all bids or parts thereof. The District further reserves the right to accept a proposal other than the lowest bid, which bid in all of the respects complies with the RFP and the RFP document, provided that, in the sole judgment and discretion of the District, the item offered at the higher bid has additional value or function, including but not limited to life cycle costing, product performance, quality of workmanship, suitability for a particular purpose, delivery dates, availability of item, or other such values or functions which justify a difference in price. All bids shall be evaluated on all factors involved, including the foregoing, price, quality, delivery schedules, etc. Purchase Orders or contracts shall be awarded to the responsible Bidder(s) whose proposal is determined to be most advantageous to the District, taking into consideration the factors set forth above and additional factors detailed in the RFP Bid.
- Per the Westminster Public Schools Board of Education Policy, special consideration will be given a vendor residing within the legal boundaries of the District in a bid situation as long as the bid is within five (5) percent of the lowest bid.
- The District may, at its sole and absolute discretion: a) reject any or all, or parts of any or all, proposals submitted by prospective vendors; b) re-advertise this solicitation; c) postpone or cancel the process for this solicitation; d) waive any irregularities in this solicitation and/or; e) determine the criteria and process whereby proposals are evaluated and awarded.
- C. The District reserves the right to disqualify bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder. In the event that any gratuities or kickbacks are offered or tendered to any District employee or subcontractor as inducement for award of a subcontract or order, the Bidder's proposal shall be disqualified and shall not be reinstated.

AWARD OF CONTRACT (Continued)

- D. The District shall have the right to cancel any agreement if funds are not allocated for the next fiscal year to continue this service. The District may effect such cancellation by giving the vendor written notice of its intention to cancel not less than 30 days prior to the current fiscal year period, stating reasons for cancellation. Upon cancellation of this agreement as provided in this paragraph, the District will not be responsible for the payment of any services received which occur after the end of the current period.
- E. A proposal may not be accepted from, nor any contract awarded to any person or firm which is in arrears to the District upon any debt or contract or which is a defaulter as surety or otherwise upon any obligation to the District.
- A proposal may not be accepted from, nor any contract awarded to any person or firm which has failed to perform faithfully any previous contract with the District for a minimum of one (1) year after this previous contract was terminated for cause.
- F. A proposal may not be withdrawn or cancelled by the Bidder(s) for a period of ninety (90) days following the date designated for receipt of proposal and Bidder(s) so agrees upon submittal of their proposal.
- G. The District reserves the right to also make purchases of items on this proposal from a State of Colorado Bid Contract/Price Agreement, a Cooperative Educational Purchasing Council (CEPC) Bid, or any other source during the term of this agreement.

PURCHASE ORDER TERMS AND CONDITIONS

1. To insure prompt PAYMENT, mail invoices in duplicate for each shipment. Invoices not mailed as directed may delay payment or become lost. Mail & bill to: Westminster Public Schools, 7002 Raleigh Street, Westminster, CO 80030. Payment Terms NET30. MasterCard & VISA is the preferred payment method.
2. The organization (Westminster Public Schools) placing this order (hereinafter referred to as Buyer) hereby reserves the right to cancel or recall, without liability, all or part of this order if delivery is not made within the time specified.
3. No charge for packing or drayage will be allowed unless so indicated on the face of this order.
4. If the Vendor is unable to deliver all or part of the items shown on this order, the Buyer is to be notified at once. Partial inability of the Vendor to so deliver will justify the Buyer's cancellation of this order in its entirety at the Buyer's sole discretion.
5. The Buyer will not be liable for items delivered to it unless specifically identified in this order.
6. The Buyer will have no liability for items delivered to it in damaged condition.
7. Certification. The Contractor certifies that the Contractor shall comply with the provisions of C.R.S. § 8-17.5-101 et seq. The Contractor shall not knowingly (a) employ or contract with an illegal alien to perform work under this contract, (b) enter into a contract with a subcontractor that knowingly employs or contracts with an illegal alien to perform work under this contract, or (c) enter into a contract with a subcontractor that fails to contain a certification to the Contractor that subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, (ii) will comply with all requirements of C.R.S. § 8-17.5-102(2) (b), and (iii) shall comply with all reasonable requests made in the course of an investigation by the Colorado Department of Labor and Employment. If the Contractor fails to comply with any requirement of this provision or C.R.S. § 8-17.5-101 et seq., the School District may terminate this contract for breach and

PURCHASE ORDER TERMS AND CONDITIONS (Cont'd)

the Contractor shall be liable for actual and consequential damages to the School District. Any person who is engaged by Consultant as a subcontractor shall comply with the provisions of C.R.S. SS 24-76.5-101 et seq. by producing one of the forms of identification as provided therein and otherwise demonstrating that he or she is lawfully present in the United States.

8. Certification. The Vendor/Contractor certifies that they shall comply with the provisions of the District's Criminal Records Check Certification Statement. No employee of the Vendor/contractor that has been convicted of, pled nolo contendere to, or received a deferred sentence or deferred prosecution for a felony, or a misdemeanor crime involving unlawful sexual behavior or unlawful behavior involving children, will not be allowed to work on Westminster Public Schools properties. Any person who is engaged by as a subcontractor shall comply with the provisions.
9. The Vendor warrants that the items delivered pursuant to this order shall be free of defects, and without limiting the Buyer's remedies for a breach of warranty, express or implied, the Buyer reserves the right to return all or any part of the items listed on this order, if defective in any way or if otherwise not conforming to this order. The Vendor agrees to give the Buyer full credit for such returned items.
10. Items delivered to or received by Buyer will be accepted only if accompanied by a detailed shipping list or by a copy of a detailed invoice.
11. The Vendor warrants that all items delivered pursuant to this order are and shall be free and clear of all liens and encumbrances whatsoever and that the Vendor has and will have a good and marketable title to same and Vendor shall protect, hold harmless and indemnify Buyer from and against any and all claimants to or claims against buyer and said items.
12. The Laws of the State of Colorado, U.S.A. shall govern in connection with the formation, performance, and the legal enforcement of this purchase order.
13. INSURANCE:
The contractor shall procure, at their own expense, and maintain for duration of the work, the following insurance coverage's:
 - A. Standard Worker's Compensation and Employer's Liability, including occupational disease, covering all employees engaged in performance of the work at the site, in the amount required by State statutes.

PURCHASE ORDER TERMS AND CONDITIONS (Cont'd)

B. Comprehensive Liability and Property Damage Insurance
(reference: CRS – 1973.022-10-114):

Bodily Injury	\$100,000 Each Person
	\$300,000 Each Occurrence
Property Damage	\$300,000 Each Occurrence
	\$300,000 Aggregate

If worker's compensation insurance is carried by the State Compensation Insurance fund, evidence of such coverage shall be submitted on its Certificate of Insurance Form; if by private carrier, on Certificate of Insurance, State Form SC-6.222, Part A, available from the Office of State Planning and Budgeting.

Evidence of Bodily injury and Property coverage may be submitted on State Form SC-6.222, Part B.

14. Receipt of the merchandise, services or equipment in response to this order can result in authorized payment on the part of Westminster Public Schools. However, it is to be understood that FINAL ACCEPTANCE is dependent upon completion of all applicable required inspection procedures. Should the service rendered or merchandise furnished, fail to meet all inspection requirements, Westminster Public Schools reserves the right to open negotiations with the Vendor to permit a mutually acceptable and equitable solution to the transaction.
15. Neither party to this contract may assign any portion of the agreement without the prior written consent of the other party.

PROPOSAL RESPONSE FORMAT

In order to maintain comparability and consistency in review and evaluation of responses, all proposals shall be organized as specified below. Avoid any elaborate promotional materials and provide only information that is required. All supporting materials should clearly reference the portion of the RFP to which they pertain. Each vendor proposal shall consist of one marked original copy, six (6) copies and a searchable digital copy (i.e. flash drive) in the format specified within this section. Proposals not meeting the requirements below may be determined to be non-responsive, non-responsive proposals will receive no further consideration.

- A. **Table of Contents:** Please clearly outline and identify the material and responses by tab and page number. Outline in sequential order the major areas of the proposal, including enclosures. All pages must be consecutively numbered and correspond to the table of contents.

- B. **Tab 1 - Cover Letter:** Provide a cover letter indicating your firm's understanding of the requirements/scope of services of this specific proposal. The letter must be a brief formal letter from the Proposer that provides information regarding the firm's interest in and ability to perform the requirements of this RFP. A person who is authorized to commit the Proposer's organization to perform the services included in the proposal must sign the letter. Please provide a list of all persons authorized to give presentations for Proposer. Please provide name, title, address, telephone numbers (including fax) and email address.

- C. **Tab 2 – Qualifications:** Summarize the qualifications of the firm. Where the project team includes subcontractors or sub-consultants, qualifications of the proposed subcontractors or sub-consultants shall also be provided. Past working relationships on similar projects should be indicated.

Provide the credentials of the individual(s) from your firm that will administer the day-to-day operations of the Westminster Public Schools contract. Proposal must identify the person or persons to perform work with the District and give the percent of the contract each person would be expected to perform. It is expected that the services provided will require a close, positive working relationship with the District and that the personnel identified would not be changed without the prior written approval of the District. The District will reserve the right to terminate the contract if key personnel are changed or if working relationships are not satisfactory. The proposed personnel shall be available throughout the duration of the entire project. Include an organizations chart with identification of staff responsible for contract duties, and brief position descriptions.

PROPOSAL RESPONSE FORMAT (Continued)

List the service representatives available to this account. Qualifications of new people working under this contract will be submitted to the District in writing for approval prior to them conducting any service under this contract. Submit list of all employees that will be working under the current contract and any intention for additional personnel, and back-up personnel for each function.

It is expected that your response will include the resumes of your most qualified personnel to perform this project. As an alternate please include a resume and project history of your “second tier personnel”, your personnel evaluation will be based upon the least qualified personnel.

- D. **Tab 3 – References:** Please provide five (5) K-12 Education market references. Include name of customer, address, contact name, telephone numbers (including fax number), and email address. Please include only references within the current calendar year and previous two (2) calendar years. The District may contact these references during the evaluation process.

Each Proposer should include under this tab, in tabular form, summary information for all contracts of similar size and scope performed by the firm, or team, within the past five (5) years. Information provided for each job shall include:

1. Contract/Project name
2. Agency/department/office for which performed
3. Dates of contract
4. Owner’s contract/project manager or other representative
5. Contact person
6. Dollar value of contract

The District reserves the right to contact any and all references and to obtain, without limitation, information on the Proposer’s performance on the listed jobs.

- E. **Tab 4 - Scope of Services:** The Proposer must acknowledge agreement with the specific requirements of the specifications starting on page 16 or provide an alternative for the District to consider. Indicate any exceptions to the scope of services of the RFP. Summarize your approach and understanding of the services and any special considerations of which the District should be aware.

PROPOSAL RESPONSE FORMAT (Continued)

- F. **Tab 5 – Pricing:** Provide Westminster Public Schools with pricing. Ensure that the recommended product meets the minimum specifications described herein. Proposers are encouraged to provide their best financial incentives with the initial proposal, since the District reserves the right to award a contract based on initial proposals without further discussion or negotiation.
- G. **Tab 6 – Appendices:** The content of this tab is left to the Proposer’s discretion. However, the Proposer should limit materials included here to those that will be helpful to the District in understanding the services provided for this specific contract.

**CERTIFICATION STATEMENT REGARDING ILLEGAL ALIENS
PUBLIC CONTRACT FOR SERVICES**

The Contractor, whose name and signature appear below, certifies and agrees as follows:

1. In any and all of its work for or on behalf of Westminster Public Schools (Owner) the Contractor shall comply with the provisions of CRS 8-17.5-101 et seq.
2. The Contractor does not and shall not knowingly employ or contract with an illegal alien to perform work on behalf of Owner or enter into a contract with a subcontractor that knowingly employs or contracts with an illegal alien to perform work on behalf of Owner.
3. The Contractor represents, warrants, and agrees that it has verified that no newly hired employees are illegal aliens, by participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, or otherwise will comply with the requirements of CRS 8-17.5-101(2)(b)(I).
4. The Contractor shall comply with all reasonable requests made in the course of any investigation by the Colorado Department of Labor and Employment.
5. If the Contractor fails to comply with any requirement of this provision or CRS 8-17.5-101, *et seq.*, the client may terminate this contract for Breach, and the Contractor will be liable for actual and consequential damages.

CERTIFIED and AGREED to this

(Date)

CONTRACTOR BUSINESS NAME:

SIGNED BY: _____
(Authorized company representative)

TYPED OR PRINTED NAME: _____

TITLE: _____

CRIMINAL RECORDS CHECK CERTIFICATION STATEMENT

Vendor/Contractor employees who have been convicted of, pled nolo contendere to, or received a deferred sentence or deferred prosecution for a felony, or a misdemeanor crime involving unlawful sexual behavior or unlawful behavior involving children, will not be allowed to work on Westminster Public Schools (the District) properties. The Vendor/Contractor must complete the School District's Criminal Records Check Certification Statement. This exhibit is fully made part of the terms and conditions of an award.

I, _____, certify that:

(Business name of Vendor/Contractor)

1. The Vendor/Contractor shall conduct at its own expense a criminal background check through the Department of Justice or the Colorado Bureau of Investigation for each employee working or reasonably likely to work on school district property.
2. The Vendor/Contractor will be responsible to adhere to any Federal, State, and Local privacy and confidentiality requirements and other laws, regulations, or policies governing employee background checks.
3. If, between the time the contract is awarded and the day work begins it is determined by the District that the Vendor/Contractor has not conducted background checks for each employee working on or reasonably likely to work on school district property, the awarding of the contract will be immediately revoked without penalty to the District.
4. Background report updates from the Vendor/Contractor may be requested by the District as deemed necessary. Upon 10-day notice, the Vendor/Contractor agrees to conduct and update a criminal background check for any employee working or reasonably likely to work on Westminster Public Schools property. Vendor/Contractor employees may be barred until the update is provided.
5. None of the employees who will be performing the work have been convicted of, pled nolo contendere to, or received a deferred sentence or deferred prosecution for a felony, or a misdemeanor crime involving unlawful sexual behavior or unlawful behavior involving children and this determination was made by a background check through the Department of Justice or the Colorado Bureau of Investigation.
6. The Vendor/Contractor understands that the District reserves the right to cancel, without penalty, at any time, the contract if it reasonably determines that a background report was not conducted on an employee, or if conducted, the Vendor/Contractor acted unreasonably in reference to the information contained in the report.

CRIMINAL RECORDS CHECK CERTIFICATION STATEMENT (Continued)

I declare under penalty of perjury that the foregoing is true and correct;

Date:

Signature (Authorized Signer): _____

Typed or Printed Name:

Title:

Business Street Address:

City:

State: _____ Zip Code: _____