

March 8, 2019

# **Request for Proposal Paging and Classroom Audio Systems Bid Pack**

For

**TSD Bid # 9880  
Troy School District  
4400 Livernois  
Troy, MI 48098**

**Prepared by**

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TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

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SECTION 00 30 00 – BIDDING REQUIREMENTS – INSTRUCTION TO BIDDERS

PART 1 - GENERAL

- A. Troy School District is seeking proposals for a Public Address system, projector installation and classroom audio for the new Early Childhood Center.
- B. **Bid documents may be obtained from the purchasing page (under Departments, Business Services) of the District's web site at [www.troy.k12.mi.us](http://www.troy.k12.mi.us).**
- C. **Due on or before 2:00 P.M. (local time) on March 27, 2019 ("Due Date")**, the Owner will receive bid proposals for the project. The Owner will not consider or accept a bid proposal received after the due date for bid proposal submission. All bid proposals received after the due date will be returned by making them available to the respective Bidder, unopened, for said Bidder to pick-up at their sole cost and expense. Bid proposals shall be submitted to:

Troy School District  
Administration Building  
4400 Livernois  
Troy, Michigan 48098  
Attn: Todd Hensley, Purchasing Supervisor

- D. Proposals/Quotes
  - 1. Three (3) hard copies of the proposals and one electronic copy on a thumb drive are to be submitted in sealed envelopes, clearly marked: **"Paging and Classroom Audio Bid #9880"** for Troy School District and shall be identified with the Bidder's name and address and the date and time of the bid proposal opening. The Owner is not responsible for any postal or delivery delays. No email, facsimile or other electronic bid proposals will be accepted.
  - 2. Proposals will be opened publicly immediately following the due date of the proposals
- E. Proposal Format
  - 1. The Bid response shall be structured as follows:
    - a. Section 1 – Submittal Letter, Executive Summary
    - b. Section 2 – Proposal Forms, Bid Bond and Pricing
    - c. Section 3 – Narratives, System Description, Information, and Brochures
    - d. Section 4 - Bidder Qualifications, References
    - e. Section 5 – Bidder's Maintenance Contract
  - 2. The "hard copy" Bids shall be submitted on 8 1/2" by 11" paper, single sided, single spaced using 10 to 12-point print, in 3 ring binders, clearly labeled to show the Bidder's name.

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3. The “soft copy” Bid shall be in the same structure as the “hard copy” Bids, bound in a .pdf file, submitted on an USB “flash”, “Thumb” or similar drive with the hard copies.
- F. Security
1. Each bid proposal must be accompanied by bid security in the form of a certified check or bid bond in the amount not less than 5% of the bid proposal amount, made payable to Troy School District or naming Troy School District as the obligee. Bid bonds shall be issued by a company licensed to do business in the State of Michigan
- G. Familial Disclosure Affidavit
1. Each bid proposal must be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the Bidder and any member of the Board of Education or the Superintendent of Troy School District. The Board of Education will not accept a bid proposal that does not include this sworn and notarized disclosure statement.
- H. Affidavit of Compliance – Iran Economic Sanctions
1. Each bid proposal must be accompanied by the Iran Economic Sanctions Affidavit of Compliance in compliance with Michigan Public Act No. 517 of 2012. The Board of Education will not accept a bid proposal that does not include this sworn and notarized disclosure statement.
- I. Reservation of Rights
1. The Owner reserves the right, in its sole and absolute discretion (for this provision and all other provisions contained in this RFP), to accept or reject, in whole or in part, any or all bid proposal with or without cause, to waive any irregularities or informalities in this RFP process or any bid proposal, and to award the contract to other than the low bidder, when in the opinion of the Owner, such action will best serve the Owner's interests. The Owner also reserves the right to award parts of this contract to separate vendors, when in the opinion of the Owner, such action will best serve the Owner's interests.
- J. Withdrawal of Bid Proposals/Quotes
1. All bid proposals submitted shall not be withdrawn and shall be irrevocable for a minimum period of ninety (90) calendar days following the due date for receipt of bid proposals set forth above.
- K. Requests for clarification
1. Bidders may request that the Owner clarify information contained in this RFP. All such requests must be made in writing via email to Mr. Brandon Julian, Convergent Technology Partners, at [bjulian@ctpartners.net](mailto:bjulian@ctpartners.net). Requests for clarifications and inquiries may only be made via email.

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### L. Restriction on communication

1. From the issue date of this RFP until a Contractor is selected and the contract is awarded a prospective Contractor shall not communicate about the subject of this RFP or a Contractor's bid proposal with the Owner, its Board of Education, or any individual member, administrators, faculty, staff, students, or employees, except for additional requests for clarification in accordance with the paragraph above.

### M. Release of claims

1. Each Bidder by submitting its Proposal releases the Owner from any and all claims arising out of, and related to, this RFP process and selection of a Contractor.

### N. Proposal Cost

1. Respondents of this RFP are responsible for any and all costs incurred by them or others acting on their behalf in preparing or submitting a bid proposal, or otherwise responding to this RFP, or any negotiations incidental to its bid proposal or this RFP.

### O. Collusive bidding

1. All Bidders certify that its bid proposal is made without any previous understanding, agreement or connection with any person, firm or corporation making a bid proposal for the same project and is in all respects fair, without outside control, collusion, fraud or otherwise illegal action.

## 1.2 DEFINITIONS

- A. Bid Documents are defined as the Instructions to Bidders, Schedule of Events, this RFP, including all Supplementals, Appendices, Specifications, Drawings and Addenda and the Contract.
- B. Addenda are written, or graphic instruments issued prior to the due date of bid proposals which modify or interpret the Bid Documents by additions, deletions, clarifications or corrections. All Addenda issued to Bidders prior to the due date of bid proposals shall become part of the Bid Documents and all bid proposals are to include the Project/Work therein described. Each Bid Proposal submitted shall list all Addenda that have been received prior to the due date of bid proposals.
- C. As used in these Instructions to Bidders, the term "Bid Proposal" means a bid proposal prepared and submitted in response to this RFP.
- D. As used in these Instructions to Bidders, the term "PSC" refers to the Professional Service Contractor and means Convergent Technology Partners and its assigned representative.
- E. Throughout this RFP and Contract, the "Owner" or "District" will be used to refer to Troy School District and bidders submitting bid proposals will be referred to as "Bidders" or "Vendors" and a successful Bidder or Vendor will be referred to as a "Contractor".

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1.3 BIDDER'S REPRESENTATION

- A. Each Bidder, by submitting a Bid Proposal, represents that the Bidder has read and understands the Bid Documents and is familiar with the local conditions under which the project is to be performed. Bidders will be held to have compared the Sites with Bid Documents and have satisfied themselves to all conditions affecting the execution of the Work/Project.

1.4 EXAMINATION OF BID DOCUMENTS

- A. **A mandatory Bidder's conference will be held on March 18, 2018 at 2:00 p.m. (EST)** for the purpose of answering any questions from the Vendors and visiting the Sites. The location of the Bidder's conference is:

Troy School District  
Administration Building  
4400 Livernois  
Troy, Michigan 48098

- B. Before submitting a Bid Proposal, each Bidder shall examine the RFP documents carefully and shall read the Specifications and the Bid Documents. Each Bidder shall gather complete information prior to bidding as to existing conditions and limitations under which the Work/Project is to be performed and shall include in its Bid Proposal a sum to cover the cost of items necessary to perform the Work/Project as set forth in the Bid Documents.
- C. No allowance or additional fees will be made to a Bidder because of lack of such examination or knowledge. The submission of a Bid Proposal will be considered as conclusive evidence that the Bidder has made such examination. An on-site-inspection of the Sites during the Bidder's Conference will be for all Bidders and their subcontractors, if any. Vendors may use subcontractors in connection with the Work/Project performed under this RFP provided the Owner has approved the subcontractors. In using subcontractors, the Vendor agrees to be responsible for all their acts and omissions to the same extent as if the subcontractors were employees of the Vendor.
- D. Bidders may make written request to the PSC for interpretation or correction of any ambiguity, inconsistency or error in the Bid Documents that are discovered. These questions shall be submitted to the PSC no later than 5:00 P.M., March 19, 2019. Only a written interpretation or correction by Addendum shall be binding on Bidders. No explanations or interpretations requested or made orally will be considered binding. All questions will be responded to in writing.

1.5 SUBSTITUTIONS

- A. Each Bid Proposal shall be based upon the materials and equipment described in the Bid Documents.
- B. Voluntary alternates as substitutions for materials and equipment will be considered and evaluated if the Base Bid includes specified materials and equipment. In addition to the Base

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Bid, the submission of voluntary alternates is acceptable. If a voluntary alternate is submitted for consideration, it shall be expressed on the Bid Form as an “add” or “deduct” amount from the Base Bid. If a voluntary alternate is submitted, the Bidder shall also submit sufficient information in the form of drawings, specifications, a complete description of the proposed substitute, the cost savings or advantages, the name of the material or equipment for which it is substituted, drawings, cuts, performance and test data and any other data or information necessary for a complete evaluation, sufficient for analysis of the alternate. The Owner reserves the right to unilaterally accept or reject, in whole or in part, any voluntary alternates.

### 1.6 BIDDING PROCEDURES

- A. All Bids Proposal must be submitted, in triplicate, on the Bid Proposal Forms provided as part of the Bid Documents and in accordance with the Advertisement to Bid and Instructions to Bidders. Bidders must provide a complete list of proposed subcontractors (one per discipline) as indicated on the Bid Forms. Listing two or more subcontractors per discipline will be grounds for disqualification.
- B. All Bidders must provide a proposal for the Base Bid that meets or exceeds the specifications set forth in this RFP. However, all Bidders may suggest Alternates if it is felt that the alternate proposal better suits the intent of this RFP. Any Alternate must be listed as such with separate pricing sheets. Any variance of the feature/functionality of the Base Bid must be identified in any Alternates proposed.
- C. Prior to the due date for bid proposals, any Addenda will be available for inspection wherever the Bid Documents are kept available for that purpose. No Addendum will be issued later than three (3) days prior to the due date for bid proposals. It is each Bidders responsibility to ascertain prior to submitting a Bid Proposal that he/she has received all Addenda issued and shall acknowledge their receipt in their Bid Proposal Form.
- D. All Bids must be signed as follows:
  - 1. Corporations: Signature of an officer of the firm who is authorized to bind the corporation.
  - 2. Partnerships: Signature of one partner who is authorized to bind the firm and all of its Partners.
  - 3. Bids submitted by Joint Ventures shall be signed by one of the Joint Ventures and shall be accompanied by a certified copy of the Power of Attorney authorizing the individual signing to bind all the Joint Ventures. If a certified copy of the Joint Venture's certificate submitted with the Bid Proposal indicates that all Joint Ventures have signed, no authorization is required.
  - 4. Individuals signing on own behalf: No authorization is required.
  - 5. Individual signing on behalf of another: Power of Attorney or comparable evidence of authority shall accompany Bid.

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- E. Bid proposals shall be prepared on unaltered Bid Forms which are a part of this RFP. Bidders shall make no additional stipulations on the Bid Form nor qualify the Bid Proposal in any other manner. Unauthorized conditions, limitations, or provisions attached to the Bid Proposal will be cause for rejection of the Bid Proposal. If alterations by erasure or interlineations are made for any reason, explain over such erasure or interlineations with a signed statement from the Bidder. No additional charges, other than those listed on the Bid Proposal Form and Bid Supplemental Forms, shall be made. Prices quoted will include verification/coordination of order, all costs for shipping, delivery to all Sites, insurance, payment and performance bonds, unpacking, setup, installation, operation, testing, cleanup, training and all other requirements contained in the bid documents.
- F. Bids shall be submitted in a sealed envelope. Identified on the face of the envelope:
  - 1. Project name
  - 2. Name and address of Bidder
  - 3. Notation “Paging and Classroom Audio Bid #9880”
- G. No responsibility shall attach to the PSC, the Owner, or the authorized representatives of either one, for the premature opening of any Bid Proposal which is not properly addressed, delivered and/or identified. In such event, that Bid Proposal will not be considered and the Bidder will be automatically disqualified from consideration.
- H. Negligence in preparation, improper preparation, errors in and/or omissions in the Bid Proposal shall not relieve the Bidder from fulfillment of any and all applicable obligations and requirements of contained in the Bid Documents.
- I. The Owner or PSC in making copies available of the Bid Documents to Bidders do so only for the purpose of obtaining bid proposals on the project and do not confer a license or grant of use to a Bidder for any other purpose.
- J. All Bidders must complete, sign and return the attached “FAMILIAL DISCLOSURE AFFIDAVIT” with their Bid Proposal.
- K. Bidders must include a Bill of Material (BOM), along with line item pricing for all components proposed, including, but not limited to, access points, electronics, peripherals, maintenance and support with the total listed where indicated in the Bid Proposal Forms. Failure to provide the BOM with line item pricing will result in disqualification of the Bid proposal. This does not preclude filling out the unit pricing Form Attachment B.
- L. The Owner considers this RFP legally binding and will require that this Request for Proposal and the Bid Proposal be incorporated by reference into any subsequent Contract between the Contractor and the Owner. It should be understood by the Bidder that this means that the Owner expects the Bidder to satisfy all of the requirements and specifications contained in the RFP. Any exceptions to the RFP must be explicitly noted in the Bid Proposal. Lack of listing all exceptions will be considered acceptance of all of the specifications as presented in this RFP

### 1.7 CONSIDERATION OF BIDS



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- A. The Bidder acknowledges the right of the Owner to accept or reject any or all Bid proposals, in whole or in part, with or without cause, to waive any irregularities or informalities in this RFP process or any Bid Proposal, and to award the contract to other than the low bidder. In addition, the Bidder recognizes the right of the Owner to reject a Bid Proposal:
1. If the Bidder fails to furnish any required Bid Security, or to submit the data required by the Bid Documents; or
  2. If the Bid Proposal is in any way incomplete or irregular; or
  3. If the Bidder's performance was unsatisfactory under a prior contract for the construction, repair, modification, or demolition of a facility with the Owner, or a contractor in privacy of contract with the Owner, which was funded, directly or indirectly, by the Owner;
  4. If the Bidder was an employer of construction mechanics working on the construction of facilities funded, directly or indirectly, by the Owner through contracts under 1984 PA 431, MCL 18.1101 et seq; MSA 3.516 (101) et seq, and was determined by the Michigan Department of Labor to have failed to comply with a contractual provision requiring the payment of Department of Labor's prevailing wage or the maintenance of Department of Labor's prevailing wage or the maintenance of Department of Labor's apprentice-journeyman ratio determinations for construction mechanics for that facility.
- B. The Owner shall have the right to accept alternates in any order or combination and to determine the lowest responsible Bidder on the basis of the sum of the base bid and the alternates accepted.
- C. Once the contract is awarded to the Contractor, the contract is contingent upon Troy School District Board of Education and E-Rate funding approval and the Contractor providing the Owner with any and all documents required by the RFP prior to commencement of the Work/Project (i.e. Insurance Certificates, Labor and Material Payment Bond and Performance Bond, etc.). Further, the Owner reserves the unrestricted right to reduce the contract amount by reducing the scope of Work/project and/or components. Any such action will be taken before specific work on a building or on a project component has commenced. Contract amount shall be reduced or increased based on the unit pricing values.
- D. Bidders to whom an award of a contract is under consideration shall submit to the Owner upon his/her request a properly executed Contractor's Qualification Statement, AIA Document A305 or other information format specified by the Owner.

### 1.8 BID SECURITY

- A. The Bid Proposal shall be accompanied by a Bid Security of a certified check or cashier's check payable to the Owner or by a satisfactory Bid Bond Entity naming the Owner as the obligee and executed by the Bidder and a surety company authorized to do business in the State of Michigan, in an amount identified in the Instructions to Bidders. The check or amount of Bid Bond shall be forfeited to the Owner upon failure of the Contractor to enter into the Contract. The Contractor's Bid security will be retained until the Contractor has signed the contract and has furnished the required Certificates of Insurance and other required Bonds and documents

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required by the RFP. Bonds signed by an Attorney-In-Fact must be accompanied by a certified and effectively dated copy of their Power of Attorney.

- B. The Owner reserves the right to retain the Bid security of all Bidders until the Contractor enters into the contract or until ninety (90) days after bid opening, whichever is later. If the Contractor refuses to enter into the Contract, the Owner may retain their Bid Security as liquidated damages but not as a penalty.

### 1.9 PERFORMANCE AND LABOR AND MATERIAL PAYMENT BONDS

- A. At or prior to delivery of the signed Contract, the Owner will require the Contractor to secure and post a Labor and Material Payment Bond and a Performance Bond including bonding for all subcontractors, each in the amount of 100% of the Contract Sum including bonding for all subcontractors. Surety shall be a company incorporated in the United States and must appear on the U.S. Treasury Departments approved surety list and be adaptable to the Owner. The Contractor shall obtain such bonds in a manner consistent with Michigan law.

### 1.10 TAXES

- A. Installation services for the tangible personal property purchased by the Owner is not subject to sales taxation. Moreover, the Owner is exempt from taxation on all tangible personal property purchased by the Owner for its use and consumption; however, this exemption would not apply to any materials required under the Bid Documents that are deemed to be a component of a construction/improvement project to the Owner's Sites/Facilities. All prices submitted on the Bid proposal Form shall be inclusive of any and all applicable taxes.

### 1.11 PERMITS AND FEES

- A. All prices submitted on the Bid proposal Form shall be inclusive of any and all applicable/required permits and fees.

### 1.12 MICHIGAN RIGHT-TO-KNOW LAW

- A. All Contractors must conform to the provisions of the Michigan Right-To-Know Law, 1986 PA 80, which requires employers to:
  1. Develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers, and development and availability of Material Safety Data Sheets.
  2. Provide training for employees who work with these chemicals; and
  3. Develop a written hazard communications program.
- B. The law also provides for specific employee rights. These include:
  1. The right to be notified (by employer or Contractor posting) of the location of Material Safety Data Sheet (MSDS);

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2. The right to be notified (by employer or Contractor posting) of new or revised MSDS no later than five working days after receipt; and
  3. The right to request copies of MSDS from their employers or Contractors.
- C. Provisions of Michigan's Right-to-Know Law may be found in those sections of the Michigan Occupational Safety and Health Act (MIOSHA) which contain Right-to-Know provisions, and the Federal Hazard Community Standard, which is part of the MIOSHA Right-to-Know Law through adoption.

### 1.13 WITHDRAWAL OF BIDS

- A. A Bidder may withdraw its Bid Proposal by written request from an authorized Bidder representative, at any time prior to the due date of bid proposals.
- B. No Bidder may withdraw a Bid Proposal for a period of ninety (90) calendar days, following the due date for receipt of bid proposals, and all bid proposals shall be subject to acceptance by the Owner during this ninety (90) day period.

### 1.14 EXECUTION OF CONTRACT

- A. The Contractor to whom the contract is awarded shall, within ten (10) calendar days after Notice of Award and receipt of the contract from the Owner, execute and deliver required copies to the Owner.
- B. At or prior to delivery of the executed Contract, the Contractor to whom the contract is awarded shall deliver to the Owner those Certificates of Insurance required by the Bid Documents and such Labor and Materials Payment Bonds and Performance Bond as are required by Owner and any other documents required by this RFP.
- C. The Owner shall approve the provided Bonds and Certificates of Insurance before the Contractor may proceed with the Work/Project. Failure or refusal to provide Bonds, Certificates of Insurance or any other documents required by this RFP in a form(s) satisfactory to the Owner shall subject the Contractor to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.

### 1.15 POST BID INFORMATION

- A. Bid Form(s) shall be submitted as indicated in the Bid Documents. The Bid Form(s) requires all proposed subcontractors for the project to be named; no more than one per discipline.

### 1.16 TIME OF COMPLETION

- A. The Bidder agrees to complete the Work within the timeframes listed in the Schedule of Events.

### 1.17 EQUAL OPPORTUNITY

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- A. The Contractor and all of its subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin.

### PART 2 - EXECUTION

#### 2.1 SITE REQUIREMENTS

- A. This site is a new building and the contractor will be required to work with and coordinate activities with the Construction Manager.
- B. Certain areas of the building may not be available immediately, but a final schedule will be negotiated with the awarded contractor prior to start of installation activities.
- C. Installation Guidelines
  - 1. All Work performed on this Project will be installed in accordance with the current edition of the National Electrical Code®, the current edition of the National Electrical Safety Code®, the current edition of the BICSI Telecommunications Distribution Methods Manual, the current edition of the BICSI Cabling Installation Manual, the latest issue of the ANSI/TIA/EIA Standards as published by Global Engineering Documents as TIA/EIA Commercial Building Telecommunications Standard, and all local codes and ordinances.

#### 2.2 QUALITY ASSURANCE

- A. Project Manager
  - 1. The Contractor will provide a full-time Project Manager who will act as a single point of contact for all activities regarding this Project. The Project Manager must be a management employee and will not be involved in personally performing craft installation Work
  - 2. The Project Manager is required to attend necessary technology and construction meetings for coordination before Work is started and construction meetings once Work is in progress.
  - 3. The Project Manager will be required to make on-site decisions regarding the scope of the Work and any changes required by the Work.
  - 4. The Project Manager will be totally responsible for all aspects of the Work and shall have the authority to make immediate decisions regarding implementation or changes to the Work.
- B. Compliance with Laws and Regulations
  - 1. The Contractor performance of the Work shall comply with all applicable federal, state, and local laws, rules, and regulations and Owner policies, procedure, rules and regulations. The Contractor shall give required notices, shall procure necessary governmental licenses and inspections, and shall pay without burden to the Owner, all

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fees and charges in connection therewith unless specifically provided otherwise. In the event of violation, the Contractor shall pay all fines and penalties; including attorney's fees and other defense costs and expenses in connection therewith.

### C. Federal Communications Commission

1. Equipment requiring FCC registration or approval shall have received such approval and shall be appropriately identified.

### D. Codes, Standards, and Ordinances

1. All Work shall conform to the latest edition of the National Electrical Code®, the Building Code, and all local codes and ordinances, as applicable. ANSI/TIA/EIA-568-B and ANSI/TIA/EIA-569-A shall be adhered to during all installation activities. Methodologies outlined in the latest edition of the BICSI Telecommunications Distribution Methods Manual shall also be used during all installation activities. Should conflicts exist with the foregoing, the authority having jurisdiction for enforcement will have responsibility for making interpretation. The Contractor is wholly responsible to meet or exceed all codes, standards, regulation, manufacturer installation standards and industry best practices.

## 2.3 Safety

- A. The Contractor shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the Work. The Contractor shall at all times comply with the regulations set forth by federal, state, and local laws, rules, and regulations concerning "OSHA" and all applicable state labor laws, regulations, and standards. The Contractor shall indemnify and hold harmless the Owner from and against all liabilities, suits, damages, costs, and expenses (including attorney's fees and court costs) that may be imposed on the Owner because of the Contractor, or its subcontractor, or supplier's failure to comply with the regulations stated herein.

## 2.4 Inspection, Acceptance, and Title

- A. Inspection and Acceptance will be upon successful installation unless otherwise provided. Title to/or risk of loss or damage to all items shall be the responsibility of the Contractor until acceptance by the Owner, unless loss or damage results from negligence by the Owner. If the materials or services supplied to the Owner are found to be defective or do not conform to the specifications, the Owner reserves the right to cancel the Contract upon written notice to and return products at the Contractor's expense, based upon the terms of the Contract.
- B. The Owner shall at all times have access to the Work wherever it is in preparation or progress and shall provide proper facilities for such access and for inspection.
- C. The Contractor shall not close up any Work until the Owner has inspected the Work. Should the Contractor close up the work prior to inspection by The Owner, the Contractor shall uncover the Work for inspection by the Owner at no cost to the Owner, and then recover the Work according to the specifications contained herein. The Contractor shall notify the Owner in writing when the Work is ready for inspection. The Owner will inspect the Work as expeditiously as possible after receipt of notification from the Contractor.

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2.5 Status Reports, Meetings and Construction Coordination

- A. It shall be the Contractor's responsibility to provide the Owner with written weekly project status reports while actively engaged in craft work and a summary report at the beginning of periods of inactivity between phases or construction delays noting status at that time and expected date of return to work in addition to the requirements listed below. These reports are required and shall include, but not be limited to:
- B. Project completion percentage.
- C. Any and all problems that were encountered.
- D. Any foreseeable problems that may arise.
- E. The Owner reserves the right to hold additional status meetings on a regular basis with the Contractor's Project Manager.

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SECTION 00 30 10 - SCHEDULE OF EVENTS

The following is a projected schedule of events for this project. The schedule may change depending upon the results of the responses and a final schedule will be established prior to contracting with the awarded Vendor. Additionally, the final schedule shall be subject to change based on construction schedule and progress.

<b>EVENT</b>	<b>DATE</b>
Bid Release	March 8, 2019
Manadatory Bidder's Conference – 2:00 PM	March 18, 2019
Final Date and time for Questions – 5:00 PM	March 19, 2019
Final Addendum	March 20, 2019
Bid Due Date/time and Public Opening – 2:00 PM	March 27, 2019
Contract Award	April 16, 2019
Project Start Date	April 23, 2019
Project Completion	Phased based on construction

End of Section

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SECTION 00 40 10 - BID PROPOSAL FORM

**OWNER:** Troy School District  
Administration Building  
4400 Livernois  
Troy, Michigan 48098  
Attn: Todd Hensley, Purchasing Supervisor

**PROJECT:** Paging and Classroom Audio – Bid # 9880

**NAME OF BIDDER:** \_\_\_\_\_

**BASE BID:**

Lump sum bid for all work specified and shown on the drawings as indicated for base bid in the amount of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

The Bid Proposal amount shall be shown in both words and figures. In the case of discrepancy, the amount shown in words shall govern.

**BASE BID:** The undersigned, having examined the Bid Documents and examined the conditions affecting the Work/Project, hereby proposes and agrees to furnish all of the labor, materials, and equipment and perform all work necessary to complete the Work/Project as required by the Bid Documents for the stipulated sum identified above and detailed in Supplemental A (Cost Analysis Worksheet). The Bid Documents set forth the terms and conditions upon which the Bidder will provide a "turnkey" solution for the installation and operation of the project for use by the Owner and represents and warrants that the design, operation and functionality of the project are in accordance with the Bid Documents. All prices provided by the Bidder on this Bid Proposal Form must include all cables, connectors, equipment etc. that are necessary to make the project fully operational for the intent and purpose stated in the Bid Documents

**BID SECURITY**

Enclosed herewith find (Certified Check)/ (Bid Bond) in the amount of \$ \_\_\_\_\_ being five percent (5%) of the maximum Bid Proposal herein, made payable to Troy School District or naming Troy School District as obligee. The proceeds of which are to remain the property of Troy School District, if the Bidder does not, within ten (10) days after notice of the acceptance of Bid Proposal, enter into the Contract.



**TAXES**

Please identify the amount, if any, of this Bid Proposal that has been attributed to sales or use tax. If an amount has been attributed to such tax, please identify which components of the Bid to which the tax has been attributed.

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**SUBCONTRACTORS**

Bidders must provide attach complete list of proposed subcontractors (one per discipline), if any are proposed to be utilized on the project. Listing two or more subcontractors per discipline will be grounds for disqualification.

**EXCEPTIONS**

Any Exceptions to the terms and conditions contained in the RFP or contract are identified below:

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**ADDENDA**

This RFP incorporates the following Addenda:

Addendum No. \_\_\_\_ Dated \_\_\_\_\_ Addendum No. \_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_ Dated \_\_\_\_\_ Addendum No. \_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_ Dated \_\_\_\_\_ Addendum No. \_\_\_\_ Dated \_\_\_\_\_

**BID PROPOSAL FORM SUPPLEMENTS:**

The following Bid Form Proposal Supplements are attached hereto and are considered an integral part of this Bid Proposal Form:

- SUPPLEMENTAL A – Cost Analysis Worksheet
- SUPPLEMENTAL B – Unit Pricing
- SUPPLEMENTAL C – Mandatory Alternates
- SUPPLEMENTAL D – Voluntary Alternates
- SUPPLEMENTAL E – Familial Disclosure Affidavit
- SUPPLEMENTAL F – Iran Economic Sanctions Act Compliance Affidavit

**BIDDER NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**DATE:** \_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**EMAIL ADDRESS:** \_\_\_\_\_

If award is made to our firm based upon our Bid Proposal, we agree to enter into the form of Contract with the School District in accordance with this Request for Proposal, the contract and our Bid Proposal.

My signature certifies that the Bid Proposal as submitted complies with all terms and conditions as set forth in this Request for Proposal, unless specifically enumerated as an exception as part of this Bid Proposal Form.

I hereby certify that I am authorized to sign as a Representative for the Firm:

\_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
(Title)

TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

SUPPLEMENTAL A - COST ANALYSIS WORKSHEET

**OWNER:** Troy School District  
 Administration Building  
 4400 Livernois  
 Troy, Michigan 48098  
 Attn: Todd Hensley, Purchasing Supervisor

**BIDDER:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
 \_\_\_\_\_

**BASE BID BREAKDOWN**

Description	COMPONENT	Cost
PA System	Material	
	Labor	
	Sub Total	
Classroom Audio	Material	
	Labor	
	Sub Total	
	Performance and Payment Bond	
	<b>Proposal Total</b>	

TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

SUPPLEMENTAL B - UNIT PRICING

All bid proposals shall include a detailed Bill of Materials that notes each item, part number, and unit price.

Provide this Bill of Materials, attached to and submitted with the Bid Proposal. These unit costs, which shall be considered firm pricing during the contract period and not subject to change, will be used to determine costs for additions and deletions during the contract period. The Owner reserves the right to adjust any or all quantities at any time.

In addition to the required Bill of Materials, include the following Unit Prices.

Item	Part Number	Unit Price
Administrative handset		
External microphone and associated equipment		
Paging speaker with bracket - ceiling tile mounted		
Classroom speaker with bracket – ceiling mounted		
Paging speaker and housing – wall mounted		
Paging Horn and mount – interior use		
Paging horn and mount – exterior use		
24VDC External power supply		
Paging wiring - runs up to 150', terminated and tested		
Paging wiring - runs 151' up to 300', terminated and tested		
Paging wiring – runs 301' to 450', terminated and tested		
User software and installation for one PC		
Administrative/maintenance software and installation for one PC		
Classroom amplifier as specified		

TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

SUPPLEMENTAL C - MANDATORY ALTERNATES

Mandatory Alternate 1: None at this time

Add/Deduct \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Mandatory Alternate 2:

Add/Deduct \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Mandatory Alternate 3:

Add/Deduct \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Mandatory Alternate 4:

Add/Deduct \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Mandatory Alternate 5:

Add/Deduct \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

SUPPLEMENTAL D - VOLUNTARY ALTERNATES

VOLUNTARY ALTERNATE 1:

Add/Deduct/No Change

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

VOLUNTARY ALTERNATE 2:

Add/Deduct/No Change

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

VOLUNTARY ALTERNATE 3:

Add/Deduct/No Change

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

SUPPLEMENTAL E - FAMILIAL DISCLOSURE AFFIDAVIT

The undersigned, the owner or authorized officer of \_\_\_\_\_ (the “Bidder”), pursuant to the familial disclosure requirement provided in the Troy School District (the “School District”) Request For Proposals, hereby represents and warrants that, except as provided below, no familial relationships exist between the owner or any employee of the Bidder, and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

\_\_\_\_\_

By:

\_\_\_\_\_

Title:

\_\_\_\_\_

STATE OF MICHIGAN  
COUNTY OF \_\_\_\_\_

This instrument was acknowledged before me on the \_\_\_\_ day of \_\_\_\_\_, 2019, by

\_\_\_\_\_.

\_\_\_\_\_

, Notary Public

\_\_\_\_\_ County, Michigan

My Commission Expires: \_\_\_\_\_

Acting in the County of: \_\_\_\_\_

TROY SCHOOL DISTRICT – EARLY CHILDHOOD CENTER

SUPPLEMENTAL F - AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of the below named applicant (the “Applicant”), pursuant to the compliance certification requirement provided in the Troy School District (the “School District”) Request For Proposals for Paging and Classroom Audio Systems (the “RFP”), hereby certifies, represents and warrants that the Applicant (including its officers, directors and employees) is not an “Iran linked business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the “Act”), and that in the event Applicant is awarded a contract as a result of the aforementioned RFP, the Applicant will not become an “Iran linked business” at any time during the course of performing the Work or any services under the contract.

The Applicant further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the School District’s investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

APPLICANT:

Name of Applicant

By:

Title:

Date:

STATE OF Michigan

COUNTY OF \_\_\_\_\_ )

This instrument was acknowledged before me on the \_\_\_\_ day of \_\_\_\_\_, 2019, by

\_\_\_\_\_.

\_\_\_\_\_, Notary Public \_\_\_\_\_ County, \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

Acting in the County of: \_\_\_\_\_



Troy School District  
Public Address and Classroom Audio Systems

SECTION 27 51 20 – PAGING AND CLASSROOM AUDIO SYSTEMS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS AND SCOPE

- A. The Owner is seeking proposals for a 100%, turnkey paging and classroom audio system for the Early Childhood Center. The successful bidder shall be required to design, furnish and install all equipment, accessories, and materials in accordance with these performance specifications and drawings to provide a complete and operating system.
- B. All The paging system shall be new, of modern design, and current standard production of the manufacturer.
- C. The new paging system must work with the District's Local Area Network.
- D. The system must be IP based between each site (system headend equipment) and analog from the site's headend equipment to end devices (speakers, horns, etc.)
  - 1. Programming, administration and maintenance of the system shall be via the District's LAN using a standard PC (Provided by the District).
  - 2. District staff shall be able to accomplish all programming, administration and maintenance from the main site (Administration) as well as locally at the building.
- E. The contractor is responsible for:
  - 1. Final system design
  - 2. Provision of all labor and hardware, equipment, servers, software, wiring and speakers (as needed) required for a complete, 100% turn-key solution.
  - 3. Connection to classroom projectors and speakers.
  - 4. User programming/zoning reviews and any additional required data gathering
  - 5. Configuration and programming, including installation of software on user's PCs
  - 6. Post installation tests
  - 7. System recommendations to meet the Owner's requirements, as outlined in this document.
- F. **Provide a narrative summary of the proposed solution, including diagrams or illustrations as necessary for ease of understanding your proposal.**

Troy School District  
Public Address and Classroom Audio Systems

- G. The Bidder's proposal must also state in detail the extent to which the quoted system meets, exceeds, or fails to meet the following requirements. Provide as part of the bid proposal, a complete bill of materials, including catalog cuts and equipment configurations.
- H. The Contractor shall provide the services necessary to design, furnish, install, test, train, and to provide maintenance to support the paging system conforming to acceptable industry standards. All work shall be in accordance with the intent of the specifications, and as required herein, to leave the paging system 100% complete and in satisfactory operating condition, excluding those items listed under "Work by Others."

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract apply to this Section.

1.3 APPLICABLE CODES AND STANDARDS

- A. All devices of the system shall be listed by UL (Underwriters Laboratory). All components of the system shall bear the UL label.
- B. The system shall be installed in strict accordance with all the requirements of the NEC.
- C. The system shall be installed in strict accordance with the requirements of the Americans with Disabilities Act (ADA).
- D. The system shall be installed in strict accordance with the requirements of all other applicable codes as well as all Federal, State and local codes.

1.4 SUMMARY

- A. Troy School District is installing a new, "state of the art" centralized paging system. The building shall have a stand-alone system that is capable of being networked via the District WAN to the system headend at the administration building. The new solution must allow building systems to communicate with a main system via SM optical fiber using IP protocol. Operation within each building will be analog to end points. (speakers, etc.)

1.5 SITE CONDITIONS

- A. Construction
  - 1. The Early Childhood Center is a new building. All common equipment will be located in the building MDF.
- B. Speaker wiring
  - 1. Classrooms – Homerun to IT spaces
  - 2. Corridors – Wired in series (serial) to IT spaces

Troy School District  
Public Address and Classroom Audio Systems

3. Offices, common (cafeterias, gymnasiums, etc.) and non-instructional spaces – Both serial and homerun

C. Speakers

1. Flush mounted in ceiling tiles, surface mounted wall speakers where indicated, horns and other flush mounted outdoor speakers

1.6 QUALITY ASSURANCE

- A. All items of equipment shall be designed by the manufacturer to function as a complete system and shall be accompanied by the manufacturer's complete service notes and drawings detailing all interconnections. System components shall be the standard product of one manufacturer to maintain continuity in manufacturer. Establish common sources for equipment of all systems.

1. The Vendor shall show satisfactory evidence, upon request, that the Vendor maintains a fully equipped service organization capable of furnishing adequate inspection and service to the system. The Vendor shall maintain at his facility the necessary spare parts in the proper proportion as recommended by the manufacturer to maintain and service the equipment being supplied.
2. Electrical Component Standard: Provide work complying with applicable requirements of NFPA 70 "National Electrical Code" including, but not limited to:
  - a. Article 250, Grounding.
  - b. Article 300, Part A. Wiring Method.
  - c. Article 310, Conductors for General Wiring.
  - d. Article 725, Remote Control, Signaling Circuits.
  - e. Article 800, Communication Systems.
3. Installation and startup of all systems shall be under the direct supervision of a local Vendor regularly engaged in installation, repair, and maintenance of such systems. The Vendor shall be accredited by the proposed equipment manufacturers.
4. The Vendor providing equipment shall be responsible for providing all specified equipment and mentioned services for all equipment as specified herein. The Vendor must be a local authorized distributor of all specified equipment for single source of responsibility and shall provide documents proving such. The Vendor must provide written proof that the Vendor is adequately staffed with factory-trained technicians for all of the specified equipment. The Vendor must have established business for and currently be providing all services for the equipment.
5. The Vendor shall guarantee availability of local service by factory-trained personnel of all specified equipment from an authorized distributor of all equipment specified under this section. Maintenance shall be provided at no cost to the purchaser for a period of one (1) year (parts and labor) from date of acceptance unless damage or failure is caused by misuse, abuse, neglect, or accident. Additionally, all major manufacturer

Troy School District  
Public Address and Classroom Audio Systems

supplied products must be covered by five (5) year (parts only) limited warranty from the date of acceptance.

- a. Major manufacturer supplied products shall include all headend equipment, master clocks, repeaters, etc. This warranty shall not include secondary clocks or other associated ancillary products.
6. The Vendor shall, at the Owner's request, make available a service contract offering continuing factory authorized service of the system after the initial warranty period.
7. The Vendor is responsible for all cost associated with proper installation, termination, configuration, programming, impedance and load matching of all system components.

1.7 ADMINISTRATIVE REQUIREMENTS

- A. Co-ordination: Co-ordinate work of this Section with communications and electronics work and with work of other trades for proper time and sequence to avoid construction delays.
- B. Pre-installation (Kick-off) Meeting: Convene pre-installation meeting after Award of Contract and before starting work of this Section to verify project requirements, final system design, schedule, coordination with other construction trades and to review manufacturer's written installation instructions.
- C. Notify attendees two weeks prior to meeting and ensure meeting attendees include as minimum:
  1. Owner
  2. Consultant
  3. Subcontractor
- D. Ensure meeting agenda includes review of methods and procedures related to insulation installation including co-ordination with related work.
- E. Record meeting proceedings including corrective measures and other actions required to ensure successful completion of work and distribute to each attendee within 1 week of meeting.

1.8 SUBMITTALS

- A. Pre-installation
  1. System-wide design schematics
  2. Shop drawings: These drawings shall include the manufacturers' specification sheets, including all component parts

Troy School District  
Public Address and Classroom Audio Systems

3. Wiring diagrams, detailing wiring for power, signal, and control
4. Data sheets of proposed equipment
  - a. All material and/or equipment necessary for the proper operation of the system, even if not specifically identified in the contract documents, shall be deemed part of this contract

B. Post installation

1. Post installation test results and reports as indicated herein
2. As-built drawings: They should include up-to-date drawings including any changes made to the system during installation. Circuit diagrams and other information necessary for the proper operation and maintenance of the system shall be included
3. Submit a certificate of completion of installation and service training
4. Manuals, Maintenance and Operations information
5. Warranty information

1.9 QUALITY ASSURANCE

1. All items of equipment shall be designed by the manufacturer to function as a complete system and shall be accompanied by the manufacturer's complete service notes and drawings detailing all interconnections.
2. The Vendor shall be an established communications and electronics Vendor that has had and currently maintains a locally run and operated business for at least three (3) years. The Vendor shall utilize a duly authorized distributor of the equipment supplied for this project location with full manufacturer's warranty privileges.
3. The Vendor shall show satisfactory evidence, upon request, that the Vendor maintains a fully equipped service organization capable of furnishing adequate inspection and service to the system. The Vendor shall maintain at his facility the necessary spare parts in the proper proportion as recommended by the manufacturer to maintain and service the equipment being supplied.
4. Electrical Component Standard: Provide work complying with applicable requirements of NFPA 70 "National Electrical Code" including, but not limited to:
  - a. Article 250, Grounding.
  - b. Article 300, Part A. Wiring Method.
  - c. Article 310, Conductors for General Wiring.
  - d. Article 725, Remote Control, Signaling Circuits.
  - e. Article 800, Communication Systems.

Troy School District  
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5. Installation and startup of all systems shall be under the direct supervision of a local Vendor regularly engaged in installation, repair, and maintenance of such systems. The Vendor shall be accredited by the proposed equipment manufacturers.
6. The Vendor providing equipment shall be responsible for providing all specified equipment and mentioned services for all equipment as specified herein. The Vendor must be a local authorized distributor of all specified equipment for single source of responsibility and shall provide documents proving such. The Vendor must provide written proof that the Vendor is adequately staffed with factory-trained technicians for all of the specified equipment. The Vendor must have established business for and currently be providing all services for the equipment.
7. The Vendor shall guarantee availability of local service by factory-trained personnel of all specified equipment from an authorized distributor of all equipment specified under this section. Maintenance shall be provided at no cost to the purchaser for a period of one (1) year (parts and labor) from date of acceptance unless damage or failure is caused by misuse, abuse, neglect, or accident. Additionally, all manufacturer supplied products must be covered by five (5) year (parts only) limited warranty from the date of acceptance.
8. The Vendor shall, at the Owner's request, make available a service contract offering continuing factory authorized service of the system after the initial warranty period.
9. The Vendor is encouraged to visit the sites and familiarize themselves with the existing conditions and field requirements prior to submitting a proposal.
10. The Vendor is responsible for all cost associated with proper installation, termination, configuration, programming, impedance and load matching of all system components.
11. The Vendor shall provide all necessary masonry, covering, patching, and painting work in order to render any residue of the existing central equipment invisible. All finished surfaces shall be chosen in consultation with the Owner, to assure that the Owner's aesthetic preferences have been adhered to.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in factory boxes. Store in clean, dry space in original boxes. Protect products from fumes and construction traffic. Handle carefully to avoid damage. The District will not accept deliveries or store equipment.
- B. Contractor shall provide off-site storage – the district will not accept deliveries or provide storage. The Contractor shall deliver to sites as equipment is needed for the installation.

1.11 IN-SERVICE TRAINING

Troy School District  
Public Address and Classroom Audio Systems

- A. The Vendor shall provide training with this system. These sessions shall be broken into segments that will facilitate the training of individuals in the operation of this system. Operators Manuals and Users Guides shall be provided at the time of this training.
- B. The contractor shall supply up to 4 hours of onsite user training. User training shall consist of operation of all system functions and scheduling software.
- C. The contractor shall supply up to 2 hours of technical training for District Technology staff for routine administration, maintenance and troubleshooting
- D. The user shall have access to telephone support from the manufacturer at no additional cost for the life of the product.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The intent of this performance specification is to establish a standard of quality, function and features. It is the responsibility of the bidder to ensure that the proposed product meets or exceeds every standard, feature and functionality set forth in these specifications.
- B. The Vendor for this work shall be held to have read all of the Bidding Requirements, the General Requirements, and Contract Proposal Forms; and in the execution of this work, he will be bound by all of the conditions and requirements therein.
- C. The Vendor shall be responsible for providing a complete functional system including all necessary components whether indicated in this specification or not.
- D. In preparing the bid, the bidder should consider the following:
  - 1. No claim will be made against the Owner for any costs incurred by the bidder for any equipment demonstrations which the Owner requests.
  - 2. Any prior approval of an alternate system does not automatically exempt the Vendor from the intent of these specifications. Failure to comply with the operational and functional intent of these specifications may result in the total removal of the alternate system at the expense of the Vendor.

2.2 MANUFACTURERS

- A. In accordance with RFP requirements.

2.3 PAGING SYSTEM DESCRIPTION

- A. Only systems designed primarily as a paging system shall be considered. Safety features shall include but not be limited to; priority-based access to voice functions, emergency paging, emergency call-in, PC based call-in, pre-recorded emergency announcements, external and internal telephone access, integrated video surveillance, and optional district wide

PAGING AND CLASSROOM AUDIO SYSTEM

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communication functions. Paging systems, traditional school intercom systems, or any system that does not include the above minimum features shall not be considered.

- B. The system is ultimately intended to operate as single premise district-wide solution. However, if communications with the system head-end is lost, the system shall work as a stand-alone system in each building until communication with the Owner's time server is reestablished.

#### 2.4 PAGING SYSTEM FUNCTIONALITY AND FEATURES

- A. One-way voice paging from any telephone station to a zone, group of zones, or all zones (Determined by telephone system access) and one-way voice paging to a user defined temporary (on the fly) group zone.
- B. Priority paging from selected telephone stations to a zone, group of zones, or all zones.
- C. Distribution of emergency announcement(s) from any authorized telephone to all areas furnished with a loudspeaker. Emergency announcements shall have the highest system priority.
- D. One-way priority override voice paging to all zones from a microphone.
- E. Distribution of general announcements from any administrative telephone, staff telephone, or room/office telephone. The system shall be capable of providing all-call, group call, multiple group call, or dial-on-the-fly page groups.
  - 1. Provide 2, 3 or 4-digit architectural numbering for each zone.
- F. Distribution of pre-recorded or pre-programmed messages, tones and alarms
  - 1. The paging system shall provide for a minimum of four (4) Owner pre-recorded voice messages in addition to any system pre-programmed messages, accessible by pushing a preprogrammed button on the administrative telephone or a code from a standard telephone or PC command.
  - 2. Automatic or manually activated tones and alarms (i.e.- bell schedule, emergency tones, etc.)
- G. Capable of supporting speakers at the appropriate sound level up to a maximum of 2700 feet from the central cabinet.
  - 1. Appropriate sound level shall mean 6-10 dB SPL above ambient noise levels during normal operations in each space
- H. Shall be software assignable to any or all of 72 (seventy-two) paging groups.
- I. Provide unlimited time tone schedules/unlimited events with the ability to automatically administer 8 (eight) or more schedules at any given time. Each scheduled event shall be capable of utilizing any one of 9 (nine) user defined internal tones/auxiliary sources. Automatically



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administered schedules shall be capable of simultaneous operation. Schedule administration, modification and creation functions must be available through administration PC software.

- J. System functionality must include the capability to manually distribute up to 5 (five) emergency alert tones via pushbuttons, contact closure, or dial up tones from any administrative telephone. These tones shall be customizable with respect to cadence, type and duration. Dial up tones must only be accessible by authorized users.
- K. Each building paging system shall allow for a numerous/time/program zones that can be assigned and configured as desired. Specify the quantity in your proposed solution.
- L. Zone/area loudspeakers must have the flexibility to be programmed as an off-limit paging zone that may be programmed daily or hourly as not to receive normal pages or normal tones. These zones shall still receive emergency pages and emergency tones. System shall be able to add any zone at any time to this off-limit paging zone.
- M. The system shall have the ability to control all system relays. Relays shall be DTMF controlled, automatically cycle at a programmed time of day, follow time schedule events, follow time group events, follow security calls, and follow emergency and ADA calls. All relays must be software programmable with the flexibility to change as required.
- N. Class of Service, with day and night programmable modes. Each day of the week shall have the ability to be programmed for different times to allow flexibility.
- O. The system shall use volume controls in office spaces
- P. The paging system shall interface with fixed classroom sound systems, in that sound systems will allow paging over-ride. (Page override device provided by others)

2.5 PAGING SYSTEM HEADEND

- A. Microprocessor based system capable of handling up to 360 zones. A zone is defined as a speaker output/contact closure combination. A zone output shall support one-way speakers and a closure output to activate strobes, and other ancillary devices.
- B. System shall provide a contact closure associated with each one-way page zone for activation of strobes and other ancillary devices.
- C. System shall be modular in design and capable of expanding in increments of 24 one-way page zones at a time allowing for budget flexibility and expandability.
- D. The system shall provide a built in Ethernet port on the CPU for network connectivity over the LAN/WAN for system setup, programming, and system changes. This port shall also be utilized for the administration software for easy and simple access to the system for daily, weekly, monthly, and yearly changes.
  - 1. The system shall have a Windows® based PC administration programming tool which allows the administrative personnel to easily manage audio sources, schedules, paging

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groups, zone changes, time updates, holiday schedules and day/night mode operation from their desktop PC.

2. Provide off-site programming of the system via standard web browser.
- E. The Paging system shall operate via a GUI based PC based application. The PC application shall allow for emergency paging, normal paging, intercom, activation of any system/user tone, schedule changes, program distribution, call-in management, and on the fly room exclusion.
- F. The paging system shall be provided with management software for programming and scheduling of bells and tones at each building, which can be accessed and modified locally over the network, from the Administration building or a standard web browser off-site
1. The Paging system shall use a PC based GUI scheduling tool for schedules and tone management. This tool shall not allow access to any system configuration controls. This tool shall not prevent the Paging system from operating when being used. This tool shall allow the user to schedule events and manage tones over the local LAN/WAN and the Internet. It shall not be required to be directly connected to the central system to use this tool.
- G. The Paging system shall have a built in 30-day log of every system function and access.
- H. Diagnostics
1. The Paging system shall have a built-in real-time system diagnostics application, which shall allow for system diagnostics, system log access firmware updates, and programming over the local LAN/WAN or over the Internet.
  2. The system shall also be capable of determining basic circuit faults.
- I. Programmable features shall be stored in non-volatile memory and shall not be lost due to power failures.
- J. The system shall provide an RS-232 port, which will give ability to monitor operations and functions of the systems, additionally the system shall contain natively RS232, RS485, USB, and Ethernet ports for communication to any third-party system.
- K. System shall also be connected to existing and new one-way speakers and horns. An unlimited quantity of one-way speakers and horns may be connected to each zone.
- L. Provide a minimum of 8 (eight) unrestricted audio paths for administrative phones, program material, time tone distribution, and paging.
- M. Provide a minimum of 6 (six) software programmable pushbutton inputs that can be used to activate tones, emergency tones, time tones, schedules, set system time, force a holiday schedule, door entry, etc.

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- N. Provide a minimum of 8 (eight) software programmable output contact closures which can be activated manually to turn on cameras, unlock doors, emergency lockdown, etc., or automatically via Master Time Control Center.
- O. The Paging system shall contain a minimum of three (3) dry contacts and three (3) general purpose inputs for third party system integration. It shall be possible to expand inputs or outputs to any number needed.

2.6 PAGING SYSTEM MASTER CLOCK

- A. The Paging system's integral master clock shall be synchronized with the District's Network Time Sever (NTP).
- B. The Paging system master clock shall provide for automatic daylight-saving time adjustment with leap year programming.
- C. The Paging system master clock shall support unlimited schedules with unlimited events on said schedules.
- D. The Paging system master clock shall be calendar based capable of future event programming at least 10 years in the future.
- E. The Paging system master clock shall allow for scheduling tone events, output events, program source events, and video camera events.

2.7 TELEPHONE SYSTEM INTEGRATION

- A. The Paging system shall support both digital PABX and VoIP Caller-ID enabled telephone ports. Ports shall be used to interface with system Administrative phones, and telephone systems.
- B. System shall interface with VoIP telephone systems, thus allowing the end user(s) to replace their telephone system without suffering a requirement to replace, or lose any feature of, their internal communications paging system.
- C. Each building shall have the ability for "night ringing"; a broadcast notification to all zones for after-hours telephone calls into the building.

2.8 TONES AND SOURCES

- A. The Paging system shall have tones available for bells, reminders, and other events. Specify in your narrative quantity available.
- B. The Paging system shall support WAV type audio files. The user shall be able to add 25+ custom WAV files for use as pre-recorded announcements, bells, reminders, pre-announce tones, or any other system tone.
- C. Ability to provide pre-alert tone to zones for general announcements.

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- D. Ability to produce user defined tone signals for time tones or emergency tones.
- E. Ability to select the tone on an all-call basis from any, or selected, administrative telephones.
- F. Ability to program and control the built-in master clock with 1024 events and unlimited time schedules with multiple time groups.
- G. Shall provide preannounce and privacy tones that are software programmable.
- H. Distribution of discreet signal tones to a zone, group of zones, or all zones.
- I. Program sources shall include music, recorded speech or signals or digital audio messaging units (programmable)

2.9 WIRES AND CABLING

- A. System speakers shall be capable of utilizing UTP 3/5/5e/6-telecom/data as well as standard paging wiring for installation, thus allowing for only one type of wiring infrastructure within the facility. The speaker zones shall be capable of utilizing spare pairs in the telephone wire allowing for lower installation cost.
- B. EMERGENCY OR PRIORTITY ANNOUNCEMENTS
  - 1. System shall provide Emergency Synthesized Voice Announce.
  - 2. Provide facilities for up to 7 (seven) call-in priority levels. Each zone call in switch shall be assignable to any one or two of these priority levels. The call button priority levels shall have the capacity to change state on a time of day basis. The priority levels shall be as follows:
    - a. Normal
    - b. Security
    - c. Normal/Emergency
    - d. Urgent/Emergency
    - e. Overhead Ring
    - f. Emergency Only
    - g. Ignore
  - 3. Call in switch priority levels shall determine call queue placement. Emergency calls will be answered first; urgent calls second and normal calls last.
  - 4. The Paging system shall operate under the following audio priority scheme.
    - a. An emergency page suspends all other audio
    - b. An emergency tone suspends all other audio except the above
    - c. A normal page suspends all other audio except the above

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- d. A tone suspends all other audio except the above
  - e. A program source audio event suspends nothing
  - f. Interrupted lower priority functions shall be restored after conclusion of the higher priority function.
5. The Paging system shall allow for any connected and programmed telephone to place an emergency voice paging announcement.

2.10 CLASSROOM AUDIO SYSTEM DESCRIPTION

- A. The amplifier shall be used to power the speakers contained within the classroom. Audio will be provided via an audio connection taken from the classroom projector.
- B. The amplifier shall have the ability to accept an input from a 25/70 volt paging system, and cause the amplifier to mute when audio is sensed on that line. The amplifier shall be of an energy savings design, and automatically go into a lower power state when there is no audio present. The amplifier shall be of a low profile design, designed to be mounted horizontally on a shelf space.
- C. The amplifier will provide the ability to connect to the dedicated self-contained DECT Technology receiver in the ceiling via a cat-6 cable. This capability must exist though it will not be utilized at this time.
- D. The amplifier shall have a separate output, with its own volume control for us with assistive listening systems.
- E. The amplifier shall meet the following specification:
  - a. Audio Power: 50 Watts RMS
  - b. THD < 1% 50 Hz to 15 kHz
  - c. Frequency Response: 50 Hz to 15 kHz +/- dB.
  - d. Power Requirements: 24 VDC, 2 Amps. Power Supply shall be included
- F. The amplifier shall have the following controls:
  - 1. Auxiliary Input Volume Controls – 3 Front Panel Controls
  - 2. Assistive Listening/Line Output – 1 Front Panel Control
  - 3. Line Output – 1 Rear Panel Control
  - 4. 3-Band Equalizer – Controls must be rotary shaft style controls

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5. As the ECC is not utilizing microphones in the classroom at this time, volume control must be done through the amplifier. Should handheld teacher and student microphones be deployed in the future, volume control must also be capable of being done through the teacher microphone.
  6. Power Indicator – There shall be an indicator on the front panel showing when the amplifier is powered on.
- G. The amplifier shall have the following connections:
- a. Assistive Listening/Line Output – Front Panel
  - b. Line/ALD Output – Rear Panel
  - c. 2 Speaker Connections – Rear Panel
  - d. 3 - 3.5mm Line Inputs – Rear Panel
  - e. 1 - 3.5mm Line Input – Front Panel
  - f. Connection Adapter with Modular 8P8C Jack for connection to DECT technology Receiver
  - g. Page Override – Rear Panel – 2 screw terminal connection
  - h. Screw Terminal 24 VDC Power Connection
- H. Classroom speakers shall meet the following specifications:
1. Provide complete distributed ceiling mounted speaker system (metal back box, speaker, grill, etc.). (i.e. Audio Enhancement Model CS-12) minimum four, (no cluster) with performance and safety features as follows:
    - a. Frequency Range: 70 Hz to 15 kHz (-10 dB)
    - b. Frequency Resp: 100 Hz to 14 kHz +/- 3 dB
    - c. Power Handling: 50 Watts continuous
    - d. Driver type: 4 in. (102 mm) Cone
    - e. System type: Tuned and vented
    - f. Sensitivity: 88 dB 1 Watt/1 Meter
    - g. Impedance: 8 Ohms nominal
    - h. Mounting: Integrated C-Clamp

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- i. Plenum rating: Speaker back can meet UL2043 criteria for plenum installation
- j. Terminals: All metal spring terminals
- k. Dimensions: Depth 5.8 in. (147.3 mm)
- l. Grill Diameter: 8.5 in. Dia. (216 mm)
- m. Mounting hole: 7.0 in. (178 mm)
- n. Weight: 3.0 lbs. (1.36kg)

2.11 WARRANTY

- A. The manufacturer shall provide a five-year warranty against defects in material and workmanship. All materials shall be provided at no expense to the owner during the warranty period. The warranty period shall begin on the date of acceptance by the owner/engineer. Any warranty less than five years shall not be considered.
- B. Provide Software Assurance (Software service packs) during the warranty period at no additional cost. This shall include software updates and the labor to install them.
- C. The Communication Contractor supplying the equipment shall show satisfactory evidence, upon request, that they maintain a fully equipped service organization capable of furnishing adequate inspection and service to the system, including replacement parts. The vendor shall be prepared to offer a service contract for the maintenance of the system after the guarantee period. The bidder shall produce evidence that they have a fully experienced and established service organization for at least five years and proven satisfactory installations during that time.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREINSTALLATION TESTS

- A. Review all classrooms, corridors, non-classroom spaces, miscellaneous locations and outdoor locations.
- B. Provide recommendations to the Owner/Consultant for revision of specific area coverage (increase or decrease) based on this review and best practices.

3.2 INSTALLATION

- A. Contractor will coordinate work hours with the Construction Manager

3.3 PROGRAMMING

- A. Upon completion of the installation the contractor shall meet with owner to go over all aspects of programming. Programming shall be performed as follows

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1. Tone distribution
2. Audio WAV file distribution
3. Room dialing configuration
4. Page zone assignment
5. Emergency page assignment/Tone
6. Telephone system integration, including any reprogramming required during telephone system placement.

- B. Once all programming has been completed the contractor shall have as part of their bid to perform one additional trip to make any changes the owner may have. This shall be part of the bid documents.

3.4 FIELD QUALITY ASSURANCE

A. Vendor Field Service:

1. Provide services of a service representative for this project location to supervise the field assembly and connection of components and the pre-testing, testing, and adjustment of the system.

B. Inspection

1. Make observations to verify that units and controls are properly labeled, mounted properly, all equipment is plumb and level.

C. Testing:

1. Rectify deficiencies indicated by tests and completely re-test work affected by such deficiencies at the Vendor's expense. Verify by the system test that the total system meets the specifications and complies with applicable standards.

3.5 CLEANING AND PROTECTION

A. Prior to final acceptance, clean system components

B. Provide adequate protection to Owner facilities to protect from damage.

C. All spaces associated with this work shall be left clean at the end of each day's work, and at the end of the project. Trash, boxes, packing material, debris and litter shall be removed daily and disposed of

1. Large quantities (i.e.- equipment boxes and packing material) shall be disposed of off-site



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- D. Restoration of, or compensation for, damage to the facility or Owner's contents by the Vendor is the Vendor's sole responsibility. Examples include paint, wall and ceiling damage.

3.6 TESTING AND COMMISSIONING

- A. Upon completion of the installation, the system devices shall be fully tested for proper connectivity and operation with the Owner's time server. Demonstrate the same to the Owner or Owner's Representative (PSC) for final acceptance.
- B. Train Owner's maintenance personnel in the procedures and schedules involved in operating, troubleshooting, servicing, and preventative maintenance of the system. Operators Manuals and Users Guides shall be provided at the time of this training.
- C. Schedule training with Owner through the PSC, with at least seven (7) days advance notice

3.7 DOCUMENTATION

- A. Provide the following minimum closeout documentation:
  - 1. As indicated in Part "Submittals" above
  - 2. Final "System Test Report" in excel format showing post installation test readings.
  - 3. "As-built" system schematics for all buildings and overall system.
  - 4. Warranty documents as required herein.

END OF SECTION

# Troy School District Early Childhood Center Typical Classroom Audio

