



Midland Public Schools

Inspiring Excellence

600 East Carpenter Street
Midland, Michigan 48640-5417

INVITATION TO BID

Midland Public Schools will accept sealed bids for (1) **Midland Administration Building Board Room Audiovisual Systems REVISED** as described in the attached specifications at

Midland Public Schools
600 East Carpenter Street
Midland, Michigan 48640-5417

Until 2:00 PM local time on Thursday, November 9, 2017, at which time bids will be opened and read aloud for presentation to the Board of Education at their next regularly scheduled meeting. No oral, telephonic, telegraphic or facsimile proposals will be considered. NO proposals will be considered after the time of closing of bids.

Pre-bid walk through (not mandatory) will be at **11:00 AM local time on Thursday, October 19, 2017** at 600 East Carpenter St., Midland, MI. Meet in the front lobby. Pre-bid walk through and any questions are due in writing by end of day **Thursday, October 26, 2017**. Questions should be sent to Oliverbs@midlandps.org and brian.jessie@bartonmalow.com. If needed an addendum will be posted 10/30 at end of day.

The Board of Education reserves the right to accept or reject any or all item(s) in the bid; to accept or reject any or all bid(s); to waive any informalities therein; or for any reason, to award the contract to other than the low bidder. If a unit price or extended price is obviously in error and the other is obviously correct, the incorrect price will be disregarded.

Prices bid are to be F.O.B. BUILDING ADDRESS, Midland, Michigan. All purchases are to be exempt from all taxes, including state and federal taxes. Exemption certificates will be furnished upon request.

All bids shall be firm for sixty days (60) from the date of the bid opening. All bids to be considered must meet or exceed all specifications herein.

All bids must be submitted on the attached bid form and signed by the bidder. Two (2) signed copies of the bid form should be addressed to the attention of:

Billie Dumont-Oliver. MPS TV Specialist
Midland Public Schools
600 East Carpenter Street
Midland, Michigan 48640-5417
"Midland Administration Building Board Room Audiovisual Systems REVISED"

One (1) copy of the bid form should be retained for your files. **All questions** should be referred to Billie Dumont-Oliver, MPS TV Specialist 989-923-5115 or oliverbs@midlandps.org or Brian Jessie brian.jessie@bartonmalow.com.

**MIDLAND PUBLIC SCHOOLS
MIDLAND, MICHIGAN**

Midland Administration Building Board Room Audiovisual Systems REVISED

GENERAL CONDITIONS:

1. All prices shall include all delivery and/or destination charges.
2. All proposals submitted shall remain firm for sixty (60) days after the date of bid opening.
3. Specifications: Any deviation from the specifications set forth must be clearly detailed on the bid proposal form; otherwise, it will be considered that items offered are in strict compliance with these specifications, and the successful bidder will be held responsible therefore.
4. Owner reserves the right to accept or reject any or all bids or award for this bid separately or in total.
5. This bid is made without any previous understanding or agreement with any other person, firm or corporation making a bid for the same purpose, and is in all respects fair and without collusion or fraud.
6. All proposals shall include Sworn and Notarized Familial Disclosure Statement and Affidavit of Compliance – Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012. Attached.
7. Vendor must supply standard warranty information along with Bid Proposal Form.

Lori Holderby
Director of Fiscal Services

October 16, 2017

**MIDLAND PUBLIC SCHOOLS
MIDLAND, MICHIGAN**

Midland Administration Building Board Room Audiovisual Systems REVISED

Bids are requested for equipment as specified in PDFs 170629-Midland Board Room Review [SPECS] (3) and 170629-Midland Board Room Review [DWGS] (2) attached separately to emailed invitation.

Base Bid for the Midland Administration Building Board Room Audiovisual Systems	\$ _____
Alternate #1	\$ _____
Alternate #2	\$ _____

The undersigned certifies that the bid contained herein meets or exceeds the attached specifications. Bid prices will remain firm for at least sixty (60) days from the date of opening.

AUTHORIZED SIGNATURE _____ TITLE _____

COMPANY _____ EMAIL _____

ADDRESS _____ CITY/STATE/ZIP _____

PHONE _____ FAX _____ DATE _____

**MIDLAND PUBLIC SCHOOLS
MIDLAND, MICHIGAN**

Midland Administration Building Board Room Audiovisual Systems REVISED

**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 contractor (the "Contractor"), pursuant to the compliance certification requirement provided in Midland Public Schools' (the "School District") Request For Proposals For [Midland Administration Building Board Room Audiovisual Systems REVISED] (the "RFP"), hereby certifies, represents and warrants that the Contractor (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 Contractor is awarded a contract as a result of the aforementioned RFP, the Contractor will not become an "Iran linked business" at any time during the course of performing the Work or any services under the contract.

The Contractor 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 the it is determined that the person has submitted the false certification.

CONTRACTOR:

Name of Contractor

By: _____

Its: _____

Date: _____

STATE OF _____)

) ss.

COUNTY OF _____)

This instrument was acknowledged before me on the ____ day of _____, 20__ by

Notary Public

County, _____

My Commission Expires: _____

Acting in the County of: _____

**MIDLAND PUBLIC SCHOOLS
MIDLAND, MICHIGAN**

Midland Administration Building Board Room Audiovisual Systems REVISED

Sworn and Notarized Familial Disclosure Statement

All bidders must provide familial disclosure in compliance with MCL 380.1267 and attach this information to the bid proposal. The bid proposal will 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 Midland Public Schools Board or the Midland Public Schools Superintendent. The District will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

The members of the Midland Public Schools Board are: Angela Brandstadt, Pamela Singer, Scott McFarland, Brad Blasy, Lynn Baker, Patrick Frazee and Mary Fredell. The Midland Public Schools Superintendent is Michael Sharrow.

The following are the familial relationship(s):

	Owner/Employee	Name Related to:	Relationship
1			
2			
3			
4			
5			

Attach additional pages if necessary to disclose familial relationships.

There is no familial relationship that exists between the owner or any employee of the service provider and any member of the Midland Public Schools Board, or the Midland Public Schools Superintendent.

BIDDER'S FIRM NAME _____

BY (SIGNATURE) _____

PRINTED NAME AND TITLE _____

Subscribed and sworn before me, this _____ day of _____, 20 ____, a Notary Public in and for _____ County, _____

(Signature) NOTARY PUBLIC
My Commission expires _____

SECTION 27 0000 – GENERAL TECHNOLOGY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes general administrative and procedural requirements. The following requirements are included to supplement the requirements specified in Division 1 Specification Sections.
- B. Along with the drawings and details, these specifications establish the requirements for the Midland Administration Building Board Room Audiovisual Systems.
- C. The project consists of the following major systems:
 - 1. Board Room Audio Systems
 - 2. Distributed Audiovisual System
- D. Technology-related work provided by others:
 - 1. Power and conduit systems (by electrical trades)
 - 2. Broadcast system
- E. The project consists of the following alternates to be submitted in addition to the base bid:
 - 1. **Alternate 1:**
Provide an 80" class LCD display in Meeting Room A. Provide a dedicated HDMI input in the location shown on the drawings. Pricing to include all mounts, labor for install, additional cabling, etc.
 - 2. **Alternate 2:**
Provide pricing for a Biamp Tesira solution in lieu of AudiaFLEX solution. Solution must accommodate the needs required by the current design, and provide a minimum of 2 additional inputs for possible system growth.

GENERAL REQUIREMENTS

- A. Bidders must submit a bill of materials with the proposal. BOM must list all major components, quantities, and extended price. BOM is provided for information only to assist in evaluating the various bid proposals. Bidder agrees to the scope of work outlined in the bid documents.
- B. The bid documentation does not provide for every component or requirement of installation, however, it does establish minimum requirements for the system. The final solution shall be well documented within the bid proposal. Drawings are not intended to be scaled for rough-in or to serve as shop drawings. Take all field measurements required to complete the work.

Installation within a reasonable distance from the locations shown on the drawing will be performed without additional cost.

- C. Contractor is to visit the site, examine and verify the conditions under which the work will be performed before submitting a bid response. The submitting of a bid response implies that the Contractor has visited the site and understands the conditions under which the work must be conducted. Additional charges will not be allowed because of failure to make this examination or to include all materials and labor to complete the work.
- D. Additional information provided with a bid response shall be used in the evaluation of bids, but do not replace the requirements established by the contract documents (project manual, drawings, specifications, etc.). The Technology Designer and Owner will not be responsible for reviewing equipment lists for completeness or conformance to the contract documents. Lists of material, bills of material, etc. submitted by the contractor do not replace the submittal requirements and do not replace the requirements established by the contract.
- E. The Contractor shall provide the services necessary to engineer, procure, install, test, and certify the systems described in the bid documents conforming to manufacturer specifications and applicable industry standards.
- F. All materials and equipment shall be furnished complete with all accessories normally supplied for a complete and operating system. All materials and equipment shall be new and shall be standard products in production and shall be of the manufacturer's current design. Any items with a known end of manufacture date will be specifically called out for approval before procurement. All equipment of the same or similar systems shall be by the same manufacturer.
- G. The methods of implementation shall be in accordance with the latest issue of the various authorities including but not limited to:
 - 1. ANSI American National Standards Institute
 - 2. ASTM American Society for Testing and Materials
 - 3. BICSI Building Industries Consulting Services International
 - 4. EIA Electronics Industries Association
 - 5. FCC Federal Communications Commission
 - 6. ICEA Insulated Cable Engineers Association
 - 7. IEEE Institute of Electrical and Electronics Engineers
 - 8. ISO International Organization for Standardization
 - 9. NEC National Electrical Code
 - 10. NECA National Electrical Contractors Association
 - 11. NEMA National Electrical Manufacturer's Association
 - 12. NFPA National Fire Protection Association
 - 13. TIA Telecommunications Industry Association
 - 14. UL Underwriters Laboratories, Inc.
- H. Notify the Technology Designer before the bid period question deadline, established at the pre-bid meeting, should any changes in bid documents be required to conform to recommended manufacturer guidelines or the applicable codes, rules, or regulations. After entering into Contract, make all changes required to conform to applicable guidelines, ordinances, rules, and regulations without additional expense to the Owner.
- I. Any required permits, licenses, inspections, approvals and fees for the work shall be secured and paid for by the Contractor. All work shall conform to all applicable codes, rules, and regulations. Perform all tests required by state, city, county and/or other agencies having jurisdiction. Provide all materials, equipment, etc., and labor required for tests.

- J. Contractor shall comply with all rules and regulations of local utility companies. Coordinate requirements with applicable companies supplying service and include the cost of all such items in proposal.
- K. Each contractor is to provide any backboards and access panels necessary for their installation. Materials are to be fire-rated. Provide D-rings, spaced no greater than 12" apart, to support cables routed to and along backboards.
- L. Each contractor is to use plenum rated cabling and accessories throughout the project.
- M. Where not provided by the electrical contractor, each contractor is required to provide their own penetrations, sleeves, and cores with firestopping. Sleeves and cores shall have nylon bushings.
- N. Install surge suppressors where ac-power-operated devices are not protected against voltage transients by integral surge suppressors specified in UL 1449. Install surge suppressors at the devices' power-line terminals. All surge suppression devices shall warranty protection of all downstream equipment.
- O. Unit prices established for the project shall remain in effect throughout the duration of the contract.

1.3 DEFINITIONS

- A. ADA: Americans with Disabilities Act.
- B. AIA: American Institute of Architects.
- C. FBO: Furnished By Others.
- D. IR: Infrared.
- E. MC: Main Cross-Connect. (Applies to MDF or Headend references).
- F. OFE: Owner Furnished Equipment. (Applies to OFCI references)
- G. POE: Power over Ethernet.
- H. RF: Radio Frequency.
- I. TR: Telecommunications Room. (Applies to MDF or IDF references).

1.4 SUBMITTALS

- A. All submittals shall be complete and organized by related items. Incomplete submittal packets will be returned unchecked. Any modifications to or deviations from the bid documents shall be specifically highlighted on the submittals. In addition to requirements specified in Division 1, include the following:
- B. Lists of material, bills of material, etc. submitted by the contractor do not replace the submittal requirements and do not replace the requirements established by the contract documents. The Technology Designer and Owner will not be responsible for reviewing lists of material for completeness or conformance to the contract documents.

- C. Copies of any professional licenses or certifications requested in the documents.
- D. Product Data: For each product indicated in the specifications or included in the scope, provide a product data sheet in both hard-copy and electronic (PDF) formats. Data sheets indicating multiple products must have the applicable product highlighted or marked.
- E. Shop Drawings: Shop drawings are to be provided in both hard-copy and electronic format (Microsoft Visio or AutoCAD format).
 - 1. Include dimensioned plan and elevation views of telecommunications rooms, with individual components labeled. Show workspace and access requirements. Identify the location of items requiring installation coordination including lighting fixtures, diffusers, speakers, sprinklers, access panels, and other architectural features
 - 2. Include scaled drawings indicating front and rear views of all equipment racks, consoles, and associated equipment indicating the relative position of the equipment, terminal connections, descriptive title, manufacturer and model number.
 - 3. Include a schematic drawing of each overall system identifying all equipment and the interconnection of components. Include both existing equipment and systems provided by others that will integrate with the voice system. Include connections with utility providers, where applicable.
 - 4. Include labeling scheme for cables and equipment.
- F. Closeout documents will include a spreadsheet identifying system components, installed location, model number, serial number, label designation, and any other pertinent data. Submittals shall include spreadsheet format for approval.

1.5 QUALITY ASSURANCE

- A. The Contractor and their Sub-Contractors shall be experienced in all aspects of the work and shall demonstrate direct experience on recent systems of similar type, complexity, and size.
 - 1. Upon request, Contractor shall furnish for both the Contractor and all Sub-Contractors information on the corporation, project manager, and installers indicating recently completed projects, technical experience, and completed training.
 - 2. The Contractor shall maintain consistent staffing for Project Management and lead installers throughout the project, with the exception of illness or loss of personnel. The Technology Designer and Owner reserve the right to require staffing substitutions if deemed beneficial to satisfactory completion of the project.
- B. The Contractor shall utilize equipment from manufacturers regularly engaged in the production of similar systems and components for a minimum of five (5) years.
- C. The Contractor shall install in accordance with all applicable codes and standards, including federal, state, and local codes and authorities.

1.6 COORDINATION

- A. Contractors shall be responsible for coordinating their configuration with the Owner, access providers, and other integrators whose systems will interact. If problems occur during implementation or commissioning, all contractors will be responsible for ongoing/additional coordination regarding configuring, testing, and troubleshooting of related/ inter-related devices until a resolution acceptable to the Owner is achieved. This includes coordination with outside

agencies such as telephone service providers, cable/satellite TV, and internet service providers when necessary

- B. Coordinate layout, rough-in requirements, and installation of the work of this section with the Owner's equipment, furniture, electrical, mechanical, architectural, and other technology trades.
- C. Coordinate with the appropriate utility companies for installation and cutover.
- D. Where multiple contractors will share a common pathway or faceplate, coordinate requirements and installation.
- E. Where the cabling and A/V contractor(s) will be sharing a faceplate, the A/V contractor is to provide the faceplate and any blank modules. The faceplate must be able to accept the termination jack chosen by the data cabling contractor. Contractors shall coordinate all faceplate and termination requirements.
- F. Contractors shall be responsible for coordinating their configuration with the Owner, access providers, and other integrators whose systems will interact. If problems occur during implementation or commissioning, all contractors will be responsible for ongoing/additional coordination regarding configuring, testing, and troubleshooting of related/inter-related devices until a resolution acceptable to the Owner is achieved.

1.7 WARRANTY

- A. The contractor warrants the system to be free of defects of workmanship or products and will inspect and repair the system within twenty-four (24) hours during the warranty period at no additional cost to the Owner. The Contractor shall respond on site within eight (8) business hours' notice, and without cost to the Owner, during this warranty period. Contractor agrees to correct system deficiencies and replace components that fail in materials or workmanship including deficiencies arising when used according to the manufacturer or Contractor's written instructions. No warranty or terms therein shall limit or be interpreted to limit remedies as provided by law.
- B. When a manufacturer's warranty is provided, it is the Bidder's responsibility to make sure the manufacturer's records reflect the correct warranty period start date as established in the contract terms.
- C. All equipment shall be provided with a three (3) year warranty unless noted otherwise. The warranty period shall begin at the date indicated on the certificate of substantial completion or the date of Owner acceptance (to be received in writing and approved by Barton Malow), whichever comes later.
- D. The warranty shall include phone support, software assurance, firmware updates, and any other special warranties.
- E. The Owner shall not be responsible for additional charges during the equipment warranty period. Labor, service charges, trip charges, etc. to configure and install equipment during the warranty period shall be included in the contractor's warranty.
- F. Contractor is to provide documentation for any and all manufacturer's warranties including the operating conditions required for the warranty.
- G. Contractor is also to provide terms of any additional warranties as a manufacturer's standard. Special warranty specified shall not deprive the Owner of other rights the Owner may have

under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Contractor is responsible for ensuring that no asbestos containing building materials (ACBM) are used and must certify to the Owner and Technology Designer that none was used.
- B. Any equipment, software, system, etc. with time dependent functions (e.g. bell systems) shall automatically adjust for daylight saving time without human intervention.

2.2 MANUFACTURERS

- A. Permit Competition. The name of a model, manufacturer or brand in this RFP shall not be considered as exclusive of other brands. Brands and models specified in this RFP are preferred. Midland Public Schools expects all supplies, materials, equipment or products bid by a Bidder to meet or exceed the specifications set forth in this RFP. Further, it is Midland Public School's intent that this RFP permit competition. Accordingly, the use of any patent, proprietary name or manufacturer's name is for demonstrative purposes only and is not intended to curtail competition. Whenever any supplies, material, equipment or products requested in this RFP are specified by patent, proprietary name or by the name of the manufacturer, unless stated differently, such specification shall be considered as if followed by the words "or comparable equivalent," whether or not such words appear. Midland Public Schools, in its sole and absolute discretion, shall have the right to determine if the proposed equivalent products/brands submitted by Bidder meet the specifications contained in this RFP and possess equivalent and/or better qualities. It is the Bidder's responsibility to notify Midland Public Schools in writing if any specifications or suggested comparable equivalent products/brands require clarification by Midland Public Schools prior to the Due Date for Bids. Any and all Bid deviations from specifications must be noted on the Proposal Form.
- B. Base bid shall utilize manufacturers listed in the applicable specification sections. Contractor may include deviations as voluntary alternates in addition to the base bid, not in lieu of the base bid.
- C. The Owner expects all supplies, materials equipment or products proposed by a Bidder to meet or exceed the Specifications set forth in the Bidding Documents. Further, it is the Owner's intent that the Bidding Documents permit competition. Accordingly, the use of any patent, proprietary name or manufacturer's name is for demonstrative purposes only and is not intended to curtail competition. Whenever any supplies, material, equipment or products requested in the Bidding Documents are specified by patent, proprietary name or by the name of the manufacturer, unless stated differently, such specification shall be considered as if followed by the words "or comparable equivalent," whether or not such words appear. The Owner, in its sole and absolute discretion, shall have the right to determine if the proposed equivalent products/brands submitted by Bidder meet the Specifications contained in the Bidding Documents and possess equivalent and/or better qualities. It shall be the Bidder's responsibility to notify the Owner in writing if any Specifications or suggested comparable equivalent products/brands require clarification by the Owner prior to the Due Date for Bid Proposals.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. It is the Contractor's responsibility to review the site work, architectural, structural, mechanical, and electrical drawings, specifications, and field conditions, for any details that may impact the installation or provisioning of the system.
- B. Failure or omission of the Contractor to examine the site or documents does not relieve the Contractor. No additional payment will be made to the Contractor for failure to comply.
- C. Review building plans and installations to confirm outlet and conduit installation and location. Check outlets, conduits, raceways, cable trays, and other elements in the proposed pathways for compliance with space allocations, clearances, installation tolerances, hazards to cable installation, and other conditions affecting installation in compliance with manufacturer requirements.
- D. Contractor shall choose appropriate mounting method and materials for each location based on manufacturer's requirements, wall construction, building structure, etc.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Consult with the Owner's Representative as to the method of completing work so as to avoid interfering with the Owner's operation. All systems shall remain operational and shall only be interrupted at times coordinated with the Owner's Representative.
- B. The Contractor shall provide all miscellaneous items and accessories required to make the system operational whether or not such items are specifically mentioned in the plans or specifications.
- C. The Contractor shall be familiar with the site and the rooms to ensure a proper installation. The final installation methods are left to the discretion of the contractor in accordance with this specification, within standards of generally accepted workmanship, and in accordance with manufacturer's recommended installation practices.
- D. The Contractor shall protect equipment and components during installation. Damage resulting from the Contractor's work shall be promptly replaced or repaired at the Contractor's expense.
- E. The Contractor shall provide all lifts and temporary supports necessary to accomplish their installation.
- F. The Contractor shall accomplish all cutting, removal and replacement of ceiling tile, drilling, coring and patching of walls, floors, casework, and ceilings required to complete their work.
- G. The Contractor, in accordance with all applicable codes, shall provide fire and smoke stopping through all partitions. Verify that penetrations of rated fire walls are made using products labeled for type of partition penetrated.
- H. All cables within racks, cabinets, or enclosures will be cable wrapped with Velcro cable ties at no greater than one-foot intervals. Cabling housed in wiring management shall be tied at no less than two-foot intervals.

- I. Due to field conditions or other situations, installation locations may have to be relocated a reasonable distance from the plan location. Unless relocations, modifications and reengineering are consistently or substantially unfavorable to either the Contractor or the Owner, there will be no additional charge or credit for this work.
- J. No additional compensation will be provided for moving installed equipment for reasons including, but not limited to:
 - 1. Performance issues.
 - 2. Failure to coordinate with other trades for existing conditions and renovations or new construction.
 - a. All drawings (including Architectural, Mechanical, Electrical, etc.) are available for review at the jobsite.
 - 3. Locations deviating from design drawings (unless approval has been obtained prior to installation).
 - 4. Failing to follow manufacturer's recommendations.
- K. The lack of permanent power does not relieve contractor of installation requirements as dictated in the specifications. If permanent power is not available, contractor must provide temporary power (e.g. UL approved extension cords) to complete installation, configuration, and testing of equipment (e.g. projectors, interactive whiteboards, etc.). Extension cords and/or other means of temporary power are to be removed immediately after the initial installation/configuration. At the time permanent power is completed, contractor to return to make final equipment connections and any necessary adjustments. Refer to the safety section of the project manual for guidelines of proper use with regards to temporary power.

3.3 CLEANING

- A. All debris shall be removed daily as required to maintain the work area in a neat, orderly condition.
- B. Contractor shall clean all equipment before Owner acceptance using methods and materials recommended by the manufacturer.

3.4 PROTECTION AND HANDLING OF EQUIPMENT AND MATERIALS

- A. Equipment and materials shall be protected from theft, injury, or damage. Equipment set in place must be provided with temporary protection.
- B. Provide adequate storage for all equipment and materials delivered to the site. Owner shall not be required to provide secure storage, but will attempt to accommodate the Contractor's requirements.

3.5 IDENTIFICATION

- A. Unless noted otherwise, use logical and systematic designations for facility's architectural arrangement and nomenclature.
- B. Contractor is responsible for permanently identifying all major components used in the project. Component list, identification method, and nomenclature to be coordinated with and approved by the Technology Designer.

- C. All cross connecting cable shall be adequately tagged as "to" and "from."

3.6 FIELD QUALITY CONTROL

- A. All ancillary accessories (e.g. remote controls, keys, etc.) shall be collected, identified by installation location, and turned over to the Owner. Coordinate delivery with Technology Designer to ensure appropriate signoffs are received.
- B. The Owner and/or Technology Designer may designate an agent who may be present during testing and may provide additional testing to verify cabling installer results. The agent shall accept or reject the installation.

3.7 DEMONSTRATION AND STARTUP

- A. All training and demonstration will be provided at no cost to the District.
- B. At the completion of each phase of work, Contractor will provide four (4) hours of startup assistance for out-of-scope work, scheduled at the Owner's discretion. The assistance time may not be contiguous and does not include travel time to or from the project site. Startup assistance shall utilize staff involved in the onsite installation unless added personnel is needed to complete the base scope of work according to the project schedule or Owner's requirements. Unused time will be deducted utilizing the labor material price.
- C. At a minimum, bids shall include twelve (12) hours of training to be used for end-user or administrative training. The assistance time may not be contiguous and does not include travel time to or from the project site. Additional training requirements are listed in individual specification sections.
- D. The following systems do not require training to be included in the base bid: structured cabling.

3.8 DOCUMENTATION

- A. For multi-phase projects, adequate documentation for completed work shall be submitted as each phase is completed to allow the owner and project team to utilize the system.
- B. At the conclusion of the project (or major phase for multi-phase projects), all documentation is to be compiled into an organized, comprehensive package. Copies are to be submitted both in hard copy and electronic formats. CAD drawings shall be in Microsoft Visio or AutoCAD formats. The Contractor is responsible for any fees charged by the architect for providing CAD backgrounds.
- C. Contractor responsible for all equipment registration per manufacturer's instructions.
- D. As-Built: In addition to requirements specified in Division 1, include the following:
 - 1. As-built drawings are to reflect all changes between the bid documents and the final installation, including final location of all outlets, racks, penetrations, etc.
 - 2. Drawings for systems showing location and cabinet/enclosure layout. Include all components identifying component manufacturer and model, serial numbers, and connections.

3. Cable tests, OTDR traces, etc. are to be provided in both hardcopy format as well as electronic format. Any software necessary to view the tests must be provided to the Owner.
4. Wiring and systems certification.
5. Certificate of manufacturer's extended warranty, where applicable.
6. Spreadsheet identifying system components, installed location, model number, serial number, label designation, warranty expiration, and any other project-specific pertinent data. Spreadsheet format to be approved by Technology Designer.
7. Drawings shall be created in AutoCAD or Visio format. Hand written drawings shall be accepted for draft or working copies only.
8. All as-built and other closeout documentation to be submitted as a PDF in addition to the native file format.

E. Maintenance Data: In addition to requirements specified in Division 1, include the following:

1. Detailed operating instructions covering operation under both normal and abnormal conditions.
2. Routine maintenance procedures for system operation, customized for the particular installation.
3. Lists of spare parts and replacement components recommended being stored at the site.

END OF SECTION 27 0000

Date	By
10/13/17	AM

Scale: None
Overall Work Area
Technology Plan
Administration

■ = PRIMARY WORK AREA



Sheet No.	18.0217
Scale	1:1
Drawn By	
Checked By	
Approved By	

