

BID #1204 - Sealed bids for the purchase and installation of Audio Visual Systems at the District Professional Development Center in the Capital School District will be accepted until 3:00 pm Eastern Time on Wednesday, April 11, 2012 at Capital School District, 945 Forest Street, Dover, DE 19904, at which time they will be opened, read, and recorded. A pre-bid meeting will be held at 3:00 on Wednesday, March 28 in the District Office, 945 Forest Street, Dover, DE 19904. Bid Specifications can be obtained at the aforementioned address or by calling (302) 672-1512.

Advertiser
3/19 - 3/20

Instructions to Bidders

Capital School District

Bid #1204 -Audio Visual System – Professional Center

- 1) Sealed bids to furnish the products described in the specifications will be received by the Capital School District at Capital School District Administrative Offices, 945 Forest Street, Dover, DE 19904 **until 3:00 p.m. Eastern time on Wednesday, April 11, 2012.**
- 2) Bids must be submitted in sealed opaque envelopes bearing on the outside the name and address of the bidder, clearly marked "**Bid # 1204 – Audio Visual System – Professional Center.**" If forwarded by mail or other service, the sealed envelope marked as above, must be enclosed in another envelope and addressed to the District Office.
- 3) A Pre-Bid Meeting will be held on Wednesday, March 28, 2012 at 3:00 pm Eastern Time in the Administrative Offices at 945 Forest Street, Dover, DE 19904. This meeting is not mandatory.
- 4) Quailified Bids will contain:
 - a. The Proposal Form provided by the district
 - b. The Non-Collusion Statement provided by the district
 - c. Copy of the vendor's Delaware Business License
 - d. Proof of Insurance
- 5) All applicable provisions of Title 29, Chapter 6962, Delaware Code, shall be as binding as though quoted herein. **Bid Bond is waived. Performance Bond is waived.**
- 6) Prevailing Wage is applicable and must be paid in accordance with State and County requirements.
- 7) All work for the entire project will be complete by May 25, 2012. Award of the contract will be made on April 26, 2012.
- 8) Bid price shall include all costs.
- 9) All work performed must be in accordance with applicable codes.
- 10) The district may extend the time and place for opening of bids from that described in the advertisement on not less than two (2) calendar days notice, by certified delivery, facsimile machine or other electronic means to those bidders who obtained copies of the specifications.
- 11) The District reserves the right to waive any informalities in or to reject any or all bids.
- 12) No bidder may withdraw his bid within sixty (60) days after the actual date of opening thereof.
- 13) A formal contract is required and must be executed prior to the issuance of a purchase order.
- 14) The district will authorize and process for payment any invoices for delivered goods within (30) days of presentment.
- 15) In setting forth the enclosed specifications, it is the intention of the buyer to offer equal opportunity to all bidders.
- 16) Bidders requiring additional information may contact Mr. Sean Sokolowski, Business Manager, at (302) 672-1512.

**Capital School District
Non-Collusion Statement
Audio Visual System – Professional Center
Bid # 1204**

The above costs are submitted in accordance with the General Instructions to Bidders, and the Specifications. Any exceptions to these are to be listed below; otherwise, I agree to complete the contract as per the General Instructions and Specifications.

NAME OF COMPANY SUBMITTING PROPOSAL

STREET ADDRESS

CITY, STATE AND ZIP

THE UNDERSIGNED BIDDER CERTIFIES THAT NEITHER HE NOR ANY REPRESENTATIVE OF HIS COMPANY HAS, EITHER DIRECTLY OR INDIRECTLY ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THIS PROPOSAL.

SIGNATURE OF AUTHORIZED REPRESENTATIVE

DATE

NAME OF LOCAL REPRESENTATIVE (PRINT)

FAX NUMBER

TELEPHONE NUMBER

E.I. NUMBER

Bid Opening: Wednesday, April 11, 2012 at 3:00 p.m. Eastern Time

**BIDS NOT RECEIVED BY THIS TIME SHALL NOT BE CONSIDERED.
NO EXCEPTIONS WILL BE MADE.**

**Proposal Page #1
Capital School District
Bid # 1204**

Audio Visual System - Professional Center

| Vendor | Equipment | Waranty Period | Total Installed Price |
|--------|-----------|----------------|-----------------------|
| | | | \$ |



AUDIO VISUAL SYSTEM SPECIFICATION
for
Capital School District Professional Development Center

1. GENERAL

Total pages: 17

- A. The intent of this specification is to provide a complete and satisfactory operating system. Work shall include the furnishing of all labor, material tools, and systems described in these Specifications and shown on the drawings. The work shall include, but not be limited to:
1. Installation of the amplifier and other associated equipment.
 2. Internal wiring of system.
 3. Installation and wiring of projectors.
 4. Installation and wiring of speakers.
 5. Installation of microphone jacks and wire.
 6. Installation of supporting cabling to tie multipurpose room (101) main sound system into phone system provided by CBS.
 7. Installation of SMART Board provided by Owner.
 8. Making equipment function as intended.
 9. Documentation of functions and wiring.
- B. Documentation
1. Upon completion of the work, the contractor shall submit all as built drawings, including system single line block diagrams and wiring diagrams including all speaker line, microphone, interconnection to wall mount cabinet, cabling, relay wiring and function and adjustment settings.
 2. Contractor shall also provide a complete set of manufacturer's specification sheets on all major items of equipment, including operating instructions, where relevant.
 3. Additionally, the Sound Contractor shall dedicate no less than four working hours, upon completion of system to thoroughly familiarize owner's representative with all aspects of the system operation.
- C. Labeling
1. Labeling of all jacks, cables, inputs, and other devices must be discussed with the owner and office of technology prior to work being completed.

2. SUBMITTALS PRIOR TO ANY WORK BEGINNING:

- A. Submit shop drawings including product data sheets and wiring diagrams per requirements in the General Conditions and shall include the following:
 - 1. A complete list of materials with model and part numbers and reference to the specification paragraph number.
 - 2. A complete set of detailed manufacturers specifications describing and illustrating all standard and special components and materials.
 - 3. A single line block diagram showing exactly the manner in which the contractor proposes to engineer the system.
 - 4. A High Level overview of the functionality of the equipment and the proposed processes to operate all related equipment. EG. How to change inputs for video and audio on the Multipurpose Room (101) System.
 - 5. Drawings shall include designations, dimensions, operating controls, instruments, proposed rack layouts, etc.
 - 6. The locations of all equipment, wiring, pathways, and other supporting architecture commensurate with the functionality of the equipment shall be documented in a layout consistent with the provided electrical plans downloaded from the EDIS website, and similar to those included with this document. This document must be reviewed by the owner and district technology office before work is to begin.

3. QUALITY ASSURANCE

- A. The contractor shall have been in business for at least five years and be an authorized representative of the manufacturer of the submitted equipment.
- B. All equipment shall conform to appropriate UL listings.
- C. In order to establish quality and standards of performance, the specifications for the sound system are based on equipment by BOGEN COMMUNICATIONS, INC. and other manufacturers as shown in this specification. Any proposed equal item offered shall be substantiated fully to provide equality and the decision of the owner or his properly designated representative as to the equality will be final.
- D. Alternate systems will be considered based upon their ability to provide the functions and features of the specified equipment and as hereinafter specified. If the contractor proposes to use an alternate manufacturer, he shall submit the system and obtain written approval at least ten days prior to the bid date. The submission shall consist of a diagram and console or rack elevation drawings for evaluation of the alternate system by the engineer. Failure of the submittal to meet or exceed the specified requirements, and/or to obtain written approval at least ten days prior to the bid date shall be sufficient cause for the refusal to

consider further submittals of this manufacturer or alternate listed manufacturers.

- E. All, conduits Floor boxes Horizontal and Vertical core drilling is not part of this specification. All Required electric circuits to support the low voltage sound and projectors will be by provided and installed by others and is not part of this specification. It will be the successful contractor's responsibility to perform a site survey of the existing conditions to determine what conduit pathways, wall spaces, and what floor and poke through boxes are installed. However, all equipment and cabling to support the sound systems, video projectors, and speakers, whether listed or not, will be the responsibility of the successful contractor to ensure that all systems are fully functional and complete. It will be the responsibility of the winning contractor to coordinate any needed power outlets and any other required supporting architecture needed for the successful installation and functionality of the equipment. This also applies to all considerations made for aesthetic and functional reasons.

Full electrical plans and diagrams can be retrieved at:

<http://Bids.ediscompany.com>

Username is: csdpc Password is: edis0413

- F. Reproduction of audio sources shall be clear, of high fidelity within all frequencies in the range the system equipment can generate, reproduced with no detectable noise, hum, or distortion. This includes feedback or reverb from microphone inputs at any reasonable location in the room. The system shall be equipped to handle the automatic cancelation of this type of feedback and reverb without any user intervention.
- G. Reproduction of video shall be clear, of high quality, and meeting all manufacturer specifications for video quality. Images should be free of hum, static, and other distortions outside of the source of all video being reproduced. This equipment should handle RF implications with running cabling near power equipment and other sources of interference that may be apparent in the building.

H. Aesthetics

1. All equipment shall be mounted in a location that is best suited for the aesthetics of the room with the equipment being installed. Wherever possible, amplifier and equipment housings shall be installed above the grid ceiling height or in an adjacent room. The owner and district technology office must agree on all of these locations before work is to begin.
2. All wiring shall be in wall or in furniture and not surface mount. This includes wiring to projectors, amplifier equipment, remote volume controllers, and other equipment unless approved by the owner and district technology office.
3. Conference Table connections must be properly dressed in conjunction with the furniture design and should be worked out with the architect and furniture designers before installation. The tabletop grommets and connection plates for audio, video, data, and power connections are being provided by EDIS. This must be coordinated with the winning bidder in their design and installation. All cabling must be provided

to allow for a fully functioning system from the tabletop connections to the projector and meet aesthetic requirements. Any cabling installed in conference rooms must be coordinated with furniture designs and all aesthetic requirements set forth herein.

4. All grommets and pass-through's made in non-structural items must be approved by the owner and office of technology before proceeding with the work. This includes table-top grommets, desk grommets, or other pass-through that need to be created to allow for proper system functionality.
5. All holes or other attachment points made in furniture for grommets or other reasons must be made with care and free from damage or chipping of the furniture surface. All damage made to furniture by the awarded contractor shall be repaired within 5 business days and the owner and office of technology must be notified immediately.
6. Any pathways or other considerations that need to be made in regards to running cabling or mounting projectors need to be approved by the owner and office of technology prior to work beginning.

4. SYSTEMS FUNCTIONS AND OPERATIONS BOARD ROOM MULTIPURPOSE ROOM SOUND/SYSTEM – ROOM 101.

- A. The systems shall provide for the distribution of voice and music to associated loudspeakers. The system shall provide all equipment necessary to provide a complete and functional system shall be provided.
- B. The system shall provide for the distribution of all video sources at the South Desk Location and AV Room (101C) in the Multipurpose Room 101 to 3 Projectors ((2)Main Projectors and (1)Front Side Projector). These are indicated on the enclosed maps, but final placement should be determined in field and at the approval of the owner and office of technology. Screen size and location are to be coordinated with EDIS and Becker Morgan.
- C. The systems shall provide for the input of a tape player, compact disc player, Recorder, Microphones, Projectors, and other line level devices to the distribution system.
- D. System must be capable of accepting owner supplied and installed telephone system paging signal to allow all call paging through this system. This should be coordinated with Collins Business Systems (Phone Vendor) to make final tie ins. CBS will also provide the specifications needed for the tie in. This includes running the associated cabling for this system tie in with the coordination of CBS and associated system requirements.
- E. System must be able to accept current recording equipment (TASCAM SS-CDR-1 MP3 digital recorder) from North Elementary School to record line level audio for all audio inputs to the system. This equipment will be provided by Capital School District.
- F. The system shall provide a minimum of 16 audio inputs and be capable of handling signal processing equipment. This system shall also accept HDMI, VGA, and Composite video for distribution to 3 projectors.

- G. The system shall provide a personal listening system for use by hearing impaired listeners.
- H. The system shall provide for a wireless microphone with transmitter pack and receiver.
- I. The system shall provide all equipment necessary to provide a complete and functional system.
- J. The system shall provide all equipment necessary to allow for audio line level control of all audio inputs and master system volume in conjunction with the district provided recording system at the workstation on the south side of the Multipurpose Room Board Room elevated desk (101). This should be coordinated with the owner and district technology office. This equipment should meet all aesthetic requirements set forth herein.
- K. The system shall provide all equipment necessary to allow for video distribution control of VGA and 3.5mm Audio, HDMI, and Composite inputs at the workstation on the south side of the Multipurpose Room Board Room elevated desk (101) in addition to the AV room (101C). This should be coordinated with the owner and district technology office. This equipment should meet all aesthetic requirements set forth herein.

5. MATERIALS AND EQUIPMENT

- A. The following equipment shall be supplied, mounted, and interconnected complete in an Atlas WMA35-23 wall mount cabinet (or approved equal to meet space requirements and future expansion):
 - 1. (2) Bogen Model (VMIX) power vector mixer with input modules as follows.
 - 2. (9) Mic Input Module (MIC1S)
 - 3. (2) Stereo Aux input dual RCA (SAX1R)
 - 4. (2) Mic Input Module (MIC1X)
 - 5. (2) CMPR Compressor
 - 6. (2) PEQ1R Equalizer
 - 7. (1) Bogen Model X600Black Max 2 Channel 600 Watt 70v Amplifier
 - 8. (1) Single Disc CD Player BOGEN # CDR1
 - 9. (1) Bogen Model(TAMB)Telephone access module
 - 10. (1) Bogen Model(WMT1A)Line matching Transformer
 - 11. (1) Bogen Model(PRSLSI)Power supply
 - 12. (1) Remote panel for audio level control. Please specify this equipment in your response.
 - 13. (1) Kramer Electronics VP-728 9 Input Presentation Scaler/Switcher connected to inputs at South Side of Board Member seating area. The contractor awarded this project must present a workable solution using this equipment or an approved solution superior to the one outlined above. Please specify all additional equipment needed for distribution for approval by Capital School District and the Technology Office.
 - 14. Outline any other equipment required to meet the objectives and functioning as stated in the enclosed documentation.

- a. All equipment Rack-mountable (enough space to hold all equipment needed and allow room for future expansion.)
 - b. External power supply (*UL and C-UL listed*) included
- B. Bogen UHF wireless Microphone system
(1)UDMS16BP kit Includes UPB Body-Pack & Lavalier Mic& UDR16 UHF Receiver
- 1. Hearing Assisted Basic Listen FM System
 - (1)LT-800-072 Stationary FM Transmitter (72 MHz)
 - (1)LA-106 Telescoping Top Mounted Antenna (72 MHz)
 - (4)LR-300-072 Portable Digital FM Receiver (72 MHz)
 - (4)LA-161 Single Ear Bud
 - (1)LA-304 Assistive Listening Notification Signage Kit
- C. Hand held microphone shall be the Bogen Model HDU-250 or approved equal. The microphone shall be a hand held or stand-mountable cardioid microphone w/ on-off switch. It shall include an internal filter and shock-mount to reduce noise from wind, breath, stand, cable and handling. It shall be heavy duty, woven grille screen to withstand drops. It shall have a rigid low noise cable mount system, and be a colored in durable black rubberized finish. Provide 1 microphone of this type for this project. 2 Bogen Model XLR25 25ft microphone cables and 1 Bogen Model SF4 microphone floor stands shall also be supplied.
- D. Install (6) Bogen Model DDU250. It shall be a cardioid, dynamic desktop microphone. It shall have a push-to-lock/push-to-talk switch and a matte black finish. There shall be cabling and jacks to install 2 other desk microphones should the need arise. Exact placement of these connection points, grommets, etc. to finalized and approved by the owner and district technology office. The desk is designed to have a maximum of 8 people sitting behind the tabletop. These two microphones will be provided by Capital School District.
- E. Microphone outlets shall be Atlas Model SG-XLR-F2.
- F. All microphone input jacks in front of Board Room Table in Multipurpose Room 101 shall be cabled and ready for microphone inputs. This is indicated on the included diagram. Each of these shall be independent inputs to the main system. This shall be indicated on the block diagram that must be submitted before work is to begin.
- G. Loudspeaker shall be BOGEN AMT-15 or approved equal. The AMT loudspeakers will be wired with West Penn 25227B Cable 2 Conductor 12AWG Unshielded cable. The speakers will require (1) Lowel TLS 10070 Transformer per speaker.

The loudspeakers should be wall (in or surface) mount and must conform to all aesthetic requirements for the room they are installed into. If an in wall or surface mount speaker is not able to be installed, they may be suspended by attaching forged eye-bolts to the rigging points of the speakers (Rigging point: depth 15mm,

diameter M8, thread pitch 1.25mm). There are two rigging points located on the speakers' top and two on the bottom. Plastic screw caps protect the rigging points. The enclosures can be suspended from these points with stainless steel wire rope or an equivalent approved by a qualified engineer and/or your local code enforcement office. This must be approved in writing by the owner and district technology office.

- H. The Primary Ceiling Mount Projector (Facing the Board Room Desk Screen) for the Multipurpose Room (101) shall be shall be a NEC NP-P350X (or other approved device by owner and office of technology). This will be the main projector and will be tied in to the sound and video distribution system. Provide projector mount part # pee-pjf2-unv or pee-prs-unv and the following cabling from the projector to the floor box as indicated on the floor plans. This projector will be facing the board member desk to display on the screen located behind the seating area. Coordination will need to happen with EDIS and Becker Morgan on screen size and projector placement. This includes all needed mounting hardware and supporting architecture.

From Projector:

- (1) HDMI Cable
- (1) VGA HD15 cable

- I. Second Ceiling Mount Projector (Facing the Raised Ceiling area for Board Member Viewing) for the Multipurpose Room (101) shall be shall be a NEC NP-P350X (or other approved device by owner and office of technology). This will be the secondary projector and will be tied in to the sound and video distribution system. Provide projector mount part # pee-pjf2-unv or pee-prs-unv and the following cabling from the projector to the floor box as indicated on the floor plans. This projector will be facing the secondary display located at ceiling height in vaulted area. Coordination will need to happen with EDIS and Becker Morgan on screen size and projector placement. This includes all needed mounting hardware and supporting architecture. This screen will mirror the primary display via the video distribution system.

From Projector:

- (1) HDMI Cable
- (1) VGA HD15 cable

- J. The Primary and Secondary Projectors will be installed in to a floor/wall/ceiling boxes provided by others. All needed faceplates, jacks, inserts, and patch cables will need to be provided for a complete system. The cable types and quantities may need to be adjusted depending on the Conduit and floor/wall box sizes that are being installed a field survey will need to be performed before installing any cabling for the Projector control cabling. It is the responsibility of the awarded contractor to coordinate all cabling requirements for conduits and pathways before the job begins. Any changes or considerations must be approved by the owner and district technology office before the job is to begin. All video and audio cabling must be homerun to audio and video distribution system in AV Room (101C).

- K. All video sources (1 HDMI, 1 VGA, 1 Composite) from workstation at south end of Board Room Desk Area need to be run into a central distribution multiplexer to allow for display on

3 Projectors (2 Main Projectors and Front Side Projector). This video feed will need to feed 3 projectors, for a total of 3 outputs. All audio will still come out of the main audio system as described herein. Video quality shall maintain the outlined standards at all locations. Output from this system should be over HDMI to all locations to maintain quality standards. An approved substitute can be made with approval from Capital School District and the Office of Technology. Aspect ratio should be maintained between projectors relative to the source video.

6. MATERIALS AND EQUIPMENT PROJECTORS AND LOCALIZED SOUND.

- A. Provide and install the following Equipment for (2) additional projectors and (2) small Localized sound reinforcement systems Within the Multipurpose Board Room. See the EDIS electrical diagrams for exact placement. The enclosed documentation will show approximate locations.
- B. Projectors will be Ceiling Mounted Projectors they shall be NEC NP-M350X (or other approved device by owner and office of technology) and will be tied in to there own independent Sound system. Final placement of all connections should be confirmed with the EDIS diagrams and the owner or Capital School District Technology Office.
- C. Front Side Projector must have VGA and composite inputs for local video and HDMI input for distributed video system. This will allow for both types of video from both sources as needed. HDMI video source shall be homerun to the AV Room (101C) to the video distribution system. Local VGA and composite video sources shall be direct run to the Projector from the local wall box. Video source on projector should be able to be remotely changed via network interface, remote control, or other system approved by Capital School District and Technology Office. All video from this projector shall meet or exceed all outlined video quality requirements.
- D. Rear Side Projector shall have stand alone video sources only. All video from this projector shall meet or exceed all outlined video quality requirements.
- E. Only the secondary display closest to the board room desk and conference room will be connected to the distributed video system as well as an independent local video source. The rear side projector will be a stand alone only local video system.
- F. Power and other supporting infrastructure for all needed equipment and full function of the system should be confirmed with EDIS before work is to begin.
- G. Provide projector mount part # pee-pjf2-unv or pee-prs-unv and the following cabling from the projector to wall mounted faceplate as indicated on the floor plans.
 - 1. (1) HDMI Cable
 - 2. (1) VGA HD15 cable
 - 3. (1) 3.5mm audio cable
- H. All inputs shall be installed into wall-mounted faceplates. All faceplates Jacks and Inserts will need to be provided for a complete system. There shall be one faceplate above projector in ceiling structure to allow for pass-through of cabling from the room space to the above ceiling space. The in wall cabling shall then run to another wall plate located at the

local screens at a location specified in the electrical plans and approved by the owner and office of technology. Jumpers on both ends shall be provided for all cabling and neatly dressed. On the upper mount, all cabling and connections shall meet all aesthetic requirements outlined herein.

- I. In a separate faceplate there should be a control knob for the volume control for each independent audio system located at each projection screen. This volume control will provide level control for all local audio sources. This location shall be approved by the owner and Office of Technology in each location before work is to begin.
- J. Supply and install the following equipment:
 - (2) Bogen WMK1 wall mount cabinets
 - (2) Bogen C20 Amplifiers
 - (10) S86T725 speaker assembly on PG8W Grille
 - (10) RE84 Enclosures 10) TB8 Tile Bridges
 - (2) Bogen AT35A volume control for independent systems.
 - (1) Lot as required West Penn 25225B 2 Conductor 16AWG Unshielded Plenum cable.

7. Conference Rooms 101A-126 and 219 supply and install the following equipment and cabling:

Ceiling Mount Projector for the Conference rooms shall be shall be a NEC NP-M-300X (or other approved device by owner and office of technology) and will be tied in to the small in room localized sound system. Provide projector mount part # pee-pjf2-unv or pee-prs-unv and the following cabling from the projector to the floor box and connection to the conference room furniture as indicated on the floor plans. From Projector (1) HDMI Cable (1) VGA HD15 cable will be installed in to a floor box provided by others. All face plates, jacks and inserts will need to be provided for a complete system. In a separate faceplate there shall be a control knob for the volume control for each independent audio system, which will control line level of all audio sources of the system. This should be location near the entrance to the room with the approval of the owner and office of technology.

It is the responsibility of the awarded contractor to coordinate any needed pathways or considerations with EDIS and have approval of the owner and district office of technology. It is also the responsibility of the awarded contractor to make sure all necessary provisions have been made in regards to power sources and other supporting architecture needed to provide for a fully functioning system. This will necessitate a site survey and coordination with EDIS.

1. All grommets and pass-trough's made in non-structural items must be approved by the owner and office of technology before proceeding with the work. This includes table-top grommets, desk grommets, or other pass-through that need to be created to allow for proper system functionality.
2. All holes or other attachment points made in furniture for grommets or other reasons must be made with care and free from damage or chipping of the furniture surface.

All damage made to furniture by the awarded contractor shall be repaired within 5 business days and the owner and office of technology must be notified immediately.

3. Any pathways or other considerations that need to be made in regards to running cabling or mounting projectors need to be approved by the owner and office of technology prior to work beginning.

All inputs shall be installed into wall-mounted faceplates. All faceplates Jacks and Inserts will need to be provided for a complete system. There shall be one faceplate above projector in ceiling structure to allow for pass-through of cabling from the room space to the above ceiling space. The in wall cabling shall then run to another wall plate located on the conference room table at a location specified in the electrical plans and approved by the owner and office of technology. A reference to the conceptual design has been included with this document to assist in this aspect. Jumpers on both ends shall be provided for all cabling and neatly dressed. On the upper mount, all cabling and connections shall meet all aesthetic requirements outlined herein.

The cable types and quantities may need to be adjusted depending on the Conduit and floor box sizes that are being installed a field survey will need to be performed before installing any cabling for the Projector control cabling. It is the responsibility of the awarded contractor to review this survey with the owner or district office of technology prior to any work beginning.

- A. Supply and install the following equipment for each conference Room 101A-126 and 129. This equipment shall meet all aesthetic requirements set forth herein:

- (1)Bogen WMK1 wall mount cabinets
- (1)Bogen C20 Amplifiers
- (2)Bogen S86T725 speaker assembly on PG8W Grille
- (2)BogenRE84 Enclosures
- (2)Bogen TB8 Tile Bridges
- (1)Bogen AT35A volume control
- (1)Lot as required West Penn 25225B 2 Conductor 16AWG Unshielded Plenum cable.
- Any other equipment as needed to provide for a fully functioning system. This equipment should be documented and submitted to the owner and office of technology before work is to begin.

8. TEACHER TRAINING ROOM 105 – LOCALIZED SOUND SYSTEM

- A. Training Room supply and install the following equipment and cabling to support the owner supplied smart board:

- (1)BogenWMK1 wall mount cabinets
- (1)BogenC20 Amplifiers

- (4)S86T725 speaker assembly on PG8W Grille
- (4)RE84 Enclosures
- (4)TB8 Tile Bridges
- (1)Bogen AT35A volume control
- (1)Lot as required West Penn 25225B 2 Conductor 16AWG Unshielded Plenum cable.
- (1)Bogen UHF wireless Microphone system
- (1)UDMS16BP kit Includes UPB Body-Pack & Lavalier Mic&UDR16 UHF Receiver

- B. Capital School District will be providing a SMART Board for installation. Labor for installation only must be included.
- C. The smart board will be interfaced by the contractor to the Bogen C20 Amplifier located in the room by the winning contractor.
- D. All equipment being installed shall conform to all aesthetic restrictions and considerations as outlined herein. All equipment locations should be coordinated with the Office of Technology and Owner before work is to begin. Any physical considerations needed for equipment placement shall be made with EDIS before installation.
- E. Any other equipment as needed to provide for a fully functioning system. This equipment should be documented and submitted to the owner and office of technology before work is to begin.
- F. It is the responsibility of the awarded contractor to coordinate any needed pathways or considerations with EDIS and have approval of the owner and district office of technology. It is also the responsibility of the awarded contractor to make sure all necessary provisions have been made in regards to power sources and other supporting architecture needed to provide for a fully functioning system. This will necessitate a site survey and coordination with EDIS.

All grommets and pass-trough's made in non-structural items must be approved by the owner and office of technology before proceeding with the work. This includes table-top grommets, desk grommets, or other pass-through that need to be created to allow for proper system functionality.

All holes or other attachment points made in furniture for grommets or other reasons must be made with care and free from damage or chipping of the furniture surface. All damage made to furniture by the awarded contractor shall be repaired within 5 business days and the owner and office of technology must be notified immediately.

Any pathways or other considerations that need to made in regards to running cabling or mounting projectors need to be approved by the owner and office of technology prior to work beginning.

9. NOTES

If awarded project all equipment, cabling and other supporting architecture to support reproduction of sound and video, whether listed or not will be the responsibility of the contractor to ensure that all systems are fully functional and complete. The location of the volume control knobs for each system should be coordinated with the Owner and Office of Technology prior to work beginning. Any changes to previously agreed upon plans shall be approved by the Owner or Office of Technology before work is to begin.

10. GUARENTEE

The sound and video contracting company shall maintain a fully equipped service organization capable of furnishing adequate inspection and service to this equipment including standard replacement parts. The contractor shall guarantee the equipment to be free from all defects in functionality, operation, and quality for a period of (1) year from date of acceptance of the entire building.

Ver: 03/14/2012

Images Attached Below.

DISTRICT OFFICES SECOND FLOOR

ICON LEGEND

1 DATA

● 1 DATA / 1 VOICE

● 2 DATA

● 2 DATA / 1 VOICE

○ WALL MOUNTED PHONE

○ DEVICE LOCATIONS ONLY

○ PRINTER

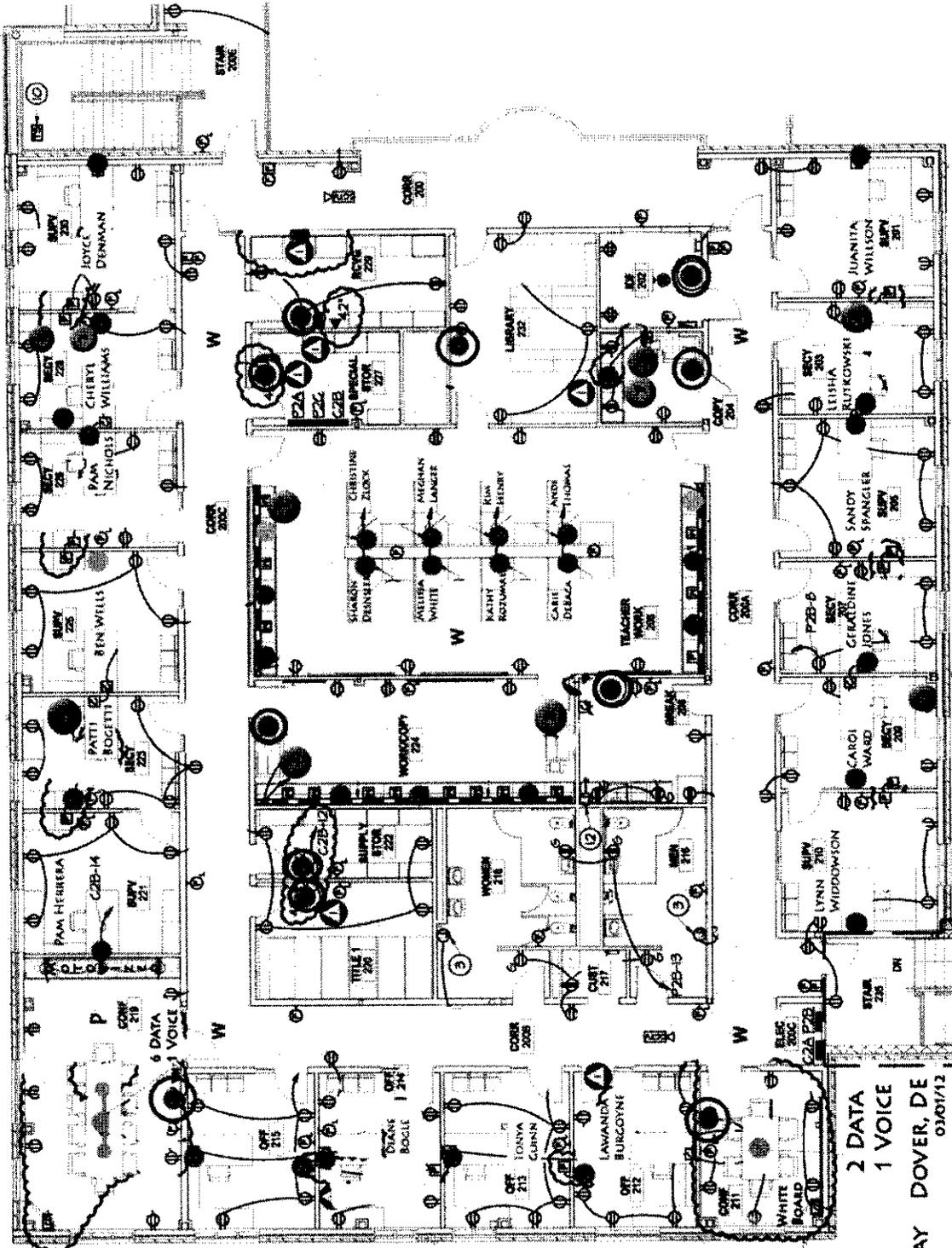
○ FAX

○ PROJECTOR SCREEN

○ CONFERENCE ROOM: TABLE TOP
LAYOUTS ON ATTACHED DRAWING
(VOICE AND DATA)

TOTAL VOICE: 50
TOTAL DATA: 61

TOTAL WAP'S: 5



2 DATA
1 VOICE

DOVER, DE



198 COMMERCE WAY



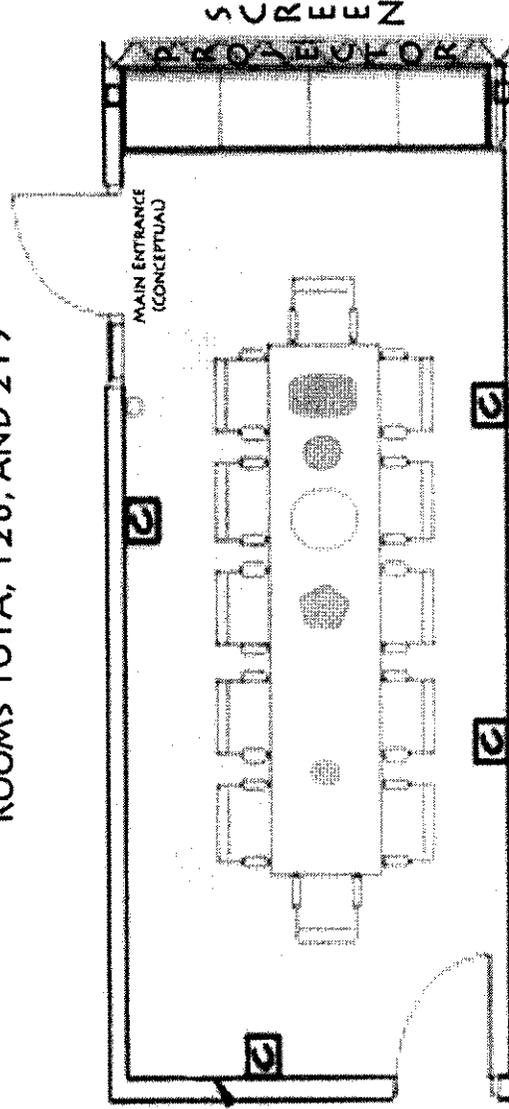
CONCEPTUAL REPRESENTATION OF LARGE CONFERENCE ROOMS

ROOMS 101A, 126, AND 219

ALL EQUIPMENT LOCATIONS SHALL BE FINALIZED WITH OWNER AND DISTRICT OFFICE OF TECHNOLOGY

THIS IS A CONCEPTUAL REPRESENTATION OF THE LARGE CONFERENCE ROOM LAYOUT. WHILE ROOM DESIGN MAY VARY SLIGHTLY THIS IS THE LAYOUT THAT SHOULD BE STANDARDIZED BETWEEN ROOMS.

ANY VARIATIONS FROM THE MAIN DESIGN THAT IS ACCEPTED BY THE OWNER SHALL BE DISCUSSED AND APPROVED PRIOR TO WORK BEGINNING.



MOTORIZED:
ROOM 126, 219
WHITE BOARD:
ROOM 101A
VERIFY WITH EDIS
BEFORE WORK BEGINS

- SPEAKER LOCATION
- AV, DATA, POWER JACK LOCATION
- DATA, POWER JACK LOCATION
- MAIN SYSTEM VOLUME CONTROL
- PROJECTOR LOCATION (CEILING MOUNTED)
- CONFERENCE PHONE LOCATION
- PRESENTER LAPTOP LOCATION



CONCEPTUAL REPRESENTATION OF MULTIPURPOSE ROOM 101 AV SYSTEM LAYOUT

ALL EQUIPMENT LOCATIONS SHALL BE FINALIZED WITH OWNER AND DISTRICT OFFICE OF TECHNOLOGY

THIS IS A CONCEPTUAL LAYOUT OF THE AV EQUIPMENT. IT INCLUDES THE MAIN SYSTEM (3 PROJECTORS) AND 2 INDEPENDANT AV SYSTEMS (2 PROJECTORS) IN THIS ROOM.

EXACT EQUIPMENT PLACEMENT SHOULD BE DONE WITH COORDINATION WITH EDIS PLANS AND APPROVAL OF THE OWNER AND TECHNOLOGY OFFICE PRIOR TO WORK BEGINNING.

ALL AV EQUIPMENT SHALL BE PLACED IN THE AV ROOM ON SOUTH SIDE AS INDICATED. ANY VARIATION TO THIS SHOULD BE APPROVED BY OWNER.

ALL CONDUIT LOCATIONS FOR MICROPHONE AUDIO SHALL BE ACTIVE AS INDICATED ABOVE. REAR CONDUIT SHALL BE LEFT FOR FUTURE EXPANSION. THE SYSTEM SHALL HAVE ROOM FOR EXPANSION TO INCLUDE THIS INPUT IN THE FUTURE.

PODIUM IS INCLUDED FOR REPRESENTATION ONLY. IT IS INCLUDED IN THE FURNITURE PLAN FROM EDIS.

THE TWO MAIN PROJECTORS AND THE FRONT SIDE PROJECTOR SHALL BE INTERCONNECTED TO MIRROR VIDEO FROM ALL SOURCES

