

Invitation to Bid  
INTERCOM SYSTEM UPGRADE

Responses to an Invitation to Bid will be received by the Purchasing Supervisor, Sumner County Board of Education, 1500 Airport Road, Gallatin, TN 37066 for INTERCOM SYSTEM UPGRADE until 9:30 a.m. CDT Tuesday, March 25, 2014. Bid responses will be opened at that time, taken under advisement and evaluated. Should you have any questions please call Chris Harrison, Purchasing Coordinator at (615) 451-5255. All proposals are subject to the Board of Education's conditions and specifications which are available from Vicky Currey, Purchasing Supervisor (615) 451-6560. All bids can be viewed on line at [www.sumnerschools.org](http://www.sumnerschools.org).

## INTERCOM SYSTEM UPGRADE

The Sumner County Board of Education, herein known as "School System", is soliciting bids for intercom system upgrades. The bid will be for materials and installation. The project is turn-key.

### Jobsite Locations:

#### **Bethpage Elementary**

420 Old Hwy 31E  
Bethpage, TN 37022

**Scope:** The existing system is a Dukane. The new system must be compatible with a 4-wire system. It is the intent of the School System to use the existing call-in switches.

#### **George Whitten Elementary**

140 Scotch Street  
Hendersonville, TN 37075

#### **Millersville Elementary**

1248 Louisville Highway  
Goodlettsville, TN 37072

#### **Walton Ferry Elementary**

732 Walton Ferry Road  
Hendersonville, TN 37075

**Scope:** The existing system, at each location, is a Rauland 5000. The new system must be compatible with a 3-wire system. It is the intent of the School System to use the existing call-in switches.

All systems shall be comprised of one administrative console at each location and have a 48-port capacity. **New system must be compatible with existing lockdown system.**

Email any questions to Chris Harrison – Purchasing Coordinator at [chris.harrison@sumnerschools.org](mailto:chris.harrison@sumnerschools.org). All questions must be submitted by March 18, 2014 @ 1:00 p.m.

# INTERCOM SYSTEM UPGRADE

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Provide microprocessor controlled voice communication system with all conduit, wire, outlets and equipment as shown on the drawings and as herein specified to provide a complete sound and voice communication system in the building.
  - 1. The system:
    - (a) Provide the facilities for paging or sounding emergency signals or time event signals to select groups or all remote speakers.
    - (b) Provide facilities for the control and distribution of up to two program channels to individual, selected groups, or all remote speakers.
    - (c) Include the facilities of a built-in master clock and programmer capable of correcting appropriate secondary clock displays and controlling events based on user programmed time schedule programs.
- B. All material and equipment necessary for the proper operation of the system even though not specifically mentioned in the contract documents are deemed part of this contract.
- C. Install and connect all equipment under strict provisions of the manufacturer's recommended instructions.
- D. All systems proposed, as herein specified, must be proven to meet specifications by the bidder who shall, during the bidding period, attach the manufacturer's name and model numbers of such equipment and material together with three (3) copies of working drawings and submit to the Owner five working days prior to bid opening for bidding approval.
- E. The Contractor:
  - 1. Install equipment on the AC voltage supply taking care to arrest damaging electrical transient and spikes, which can cause damage to the microprocessor components of the system.
  - 2. Protect all incoming intercom lines by the use of EDCO OPX surge protectors installed as per manufacturer instructions.
  - 3. Supply, install, adjust, test and guarantee the specified equipment by a factory authorized communications contractor for the products furnished.
  - 4. The vendor is responsible for verifying the completeness of the parts list and the suitability if the equipment to meet the intended purpose of the specifications and drawings.
- F. The communication bidder supplying the equipment: 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: Be prepared to offer a service contract for the maintenance of the system after the guarantee period. The bidder: Produce evidence that they have a fully experienced and established service organization for at least five (5) years and proven satisfactory installations during that time.
- G. The vendor: Provide the following documentation and service under provisions of Section 01330, "Submittal Procedures".

1. Shop Drawings: Three (3) sets. Include the manufacturers specification sheets including all the component parts.
2. As built Drawings: Three (3) sets. Include the information in "A" above. They should include up-to-date drawings that include any changes made to the system during installation. Include circuit diagrams and other information necessary for the proper operation and maintenance of the system.
3. Operating Instructions: These instructions are to be permanently affixed to all administrative control stations.
4. In-service Training: Provide the Owner with a training program designed to make all administrative control station users familiar with the operation of the voice communication system.

## **1.2 SYSTEM FUNCTIONALITY**

- A. The system consists of:
  1. Central equipment cabinet
  2. Microprocessor control unit
  3. Power supply
  4. Zone hardware cards
  5. Administrative Telephones (ATEL)
  6. Amplifiers
  7. Station loudspeaker assemblies
  8. Call-in switches
  9. Staff telephones
  10. All associated material, hardware, wiring, and options as described herein to provide a complete working system, which meets the specified requirements.
  
- B. Provide the following communications functions for the system.
  1. ATEL to remote loudspeaker station or remote staff phone speaker station.
  2. Administrative Telephone to Administrative Telephone.
  3. Administrative Telephone to CO/PABX telephone line (provide required equipment).
  4. Remote speaker equipped with call-in device to Administrative Telephone.
  5. Staff Phone to Staff Phone
  6. Staff Phone to CO/PABX telephone line
  
- C. Ensure the System:
  1. Provide the facilities for paging or sounding emergency signals or time event signals to select groups or all remote speakers.
  2. Provide facilities for the control and distribution of up to two program channels to individual, selected groups, or all remote speakers.
  3. Include the facilities of a built in master clock and programmer capable of correcting appropriate secondary clock displays and controlling events based on user programmed time schedule programs.

## **1.3 SYSTEM PARAMETERS**

- A. The System: Provide for a minimum of two (2) simultaneous open voice speech paths between Administrative Telephone (ATEL) and station loudspeakers within a 16-line group.
  1. Speech Channels:
    - (a) True multiple, simultaneous, unrestricted, amplified voice channels requiring no automatic Queue or Call Stacking to access the intercom amplifier.
    - (b) Have compatibility for expansion to 4 intercom channels.

- (c) Systems not providing true multiple, simultaneous, unrestricted, amplified voice channels or systems offering multi-speech paths which are restrictive to less than three (3) simultaneous conversations inclusive of staff phone linkage per 16-line group are unacceptable.
  - 2. The system: Provide the capability for future expansion to allow 4 simultaneous amplified intercom speech paths and 32 telephonic paths to 512 stations.
  - 3. Provide a fifteen (15) watt intercom amplifier with each Administrative Telephone (ATEL). This amplifier shall be integral to the ATEL, requiring no panel mounting space in the equipment rack associated with the system.
- B. The system: Provide the capacity for both a loudspeaker station and a handset at each remote location.
  - 1. Each remote station: Assigned and architectural or ID number to communicate with its assigned Administrative Telephone (ATEL's).
  - 2. The system: Permit user selection of 3, 4 or 5 - digit dialing.
  - 3. The handset: Provide for full duplex telephony type communications.
  - 4. The system shall not require any additional memory address locations or ID numbers for the staff handset associated with any given remote station.
  - 5. The system: Automatically toggle to the duplex mode of communications whenever the remote handset is lifted during the call in progress.
- C. Each remote station position: Allow calls to be placed from two (2) remote devices. Ensure each device has an individual assignable priority.
  - 1. The user assignable priorities for remote stations are:
    - (a) Normal
    - (b) Emergency
    - (c) Staff Handset
    - (d) Fire
    - (e) Security
    - (f) Remote Call Cancel
    - (g) Remote Program Select, allowing location to select or cancel the program channel. This shall be assignable be either program channel. Intercom or paging takes precedence over this function.
  - 2. Make it possible for the user to reset the priority for a given remote station device from a designated ATEL.
- D. Call-in devices, if continuously activated such as smoke detectors or emergency switches, may be assigned programmable recall time which causes these calls to keep reappearing until the initiating device is reset.
- E. The system: Allows preselected coverage of calls from remote station to Administrative Telephone (ATEL) on a remote station basis. A remote station shall be able to report to multiple Administrative Telephone (ATEL) simultaneously. The user may forward functions of an unattended Administrative Telephone (ATEL) to an attended Administrative Telephone (ATEL). This provides overlapping or distinct coverage of remote stations by Administrative Telephones. Systems not allowing complete flexibility of remote station coverage are unacceptable.
- F. The system: Incorporate all necessary circuitry to prevent monitoring of any remote station whose call origination switch is in the privacy mode. The system: User configurable to work with resistor or diode privacy circuits.

- G. The system: Capable of providing a supervisory tone to remote station speakers. The tone signal will indicate the speaker is being monitored by the Administrative Telephone (ATEL).
- H. The system: Provide a call announce tone. This feature, if preselected by the user, provides a tone signal at the classroom speaker when called by an Administrative Telephone (ATEL).
- I. The system: Provide the facilities so that a calling station can be placed in a "Hold" status, freeing the Administrative Telephone (ATEL) to perform other functions. It shall also be possible to "Conference" remote staff handsets and ATEL's (and outside telephone callers if telephone interface option is used) together for room-to-room communications.
- J. The system: Provide thirty-two (32) multipurpose zones for zoned audio paging /class change signals with any remote station belonging to more than one group.
- K. The system: Allow for preselective access to "Zone" and "All-Page" functions. This feature will prevent unauthorized paging from Administrative Telephones (ATEL's).
- L. The system: Provide facilities so that the user has access for sounding selected tones from any Administrative Telephone (ATEL) on either All-Page or Zonal basis for use as emergency or other alarm signals.
- M. Provide provisions to allow for the use of a priority override input (i.e., Principal's Microphone). This circuit, when activated by an external source, gathers all speakers for distribution of the signal information provided by the external source. This priority override input preempts other functions currently under way in the system. Restore upon conclusion of the priority override function, all preempted functions.
- N. The system: Provide the capability to operate with external paging amplifiers to increase the audio output available for paging.
- O. Provide the system with control point outputs for activating outboard devices such as priority override relays on remote sound systems. Activate these control point outputs when the system is placed in the All-Page mode.
- P. Provide the system with ports to allow for:
  1. Diagnostics via any standard computer terminal.
  2. Modem interface to allow remote factory engineering assistance. Systems not providing a port access to the system are not acceptable.
- Q. The system: Provide the ability to perform Scan functions from the Telephones (ATEL's) for:
  1. Review of call-in coverage assignments to an ATEL.
  2. Review ID numbers of remote stations assigned to either of the two program channels.
  3. Review, which Administrative Telephones (ATEL's) are forwarding coverage.
- R. Connect with up to eight external CO or PABX telephones lines with an optional telephone interface.
- S. Intercom system shall have the capability of overriding all sound systems throughout the campus i.e. classroom sound systems, auditorium and cafeteria sound systems.

#### **1.4 SYSTEM MASTER CLOCK**

- A. Provide a built-in master clock and programmer capable of performing the following functions.
  - 1. Displaying the time of day in either 12 or 24-hour format at the Telephones (ATEL's).
  - 2. Providing 500 discrete time event, 16 schedules and 32 multipurpose zones.
    - (a) The time of day in hours and minutes.
    - (b) The day or combination of seven (7) days of the week the event is to occur.
    - (c) Selection of any one or any combination of thirty-two (32) zones or outputs to be activated.
    - (d) Selection of any one of sixteen schedules to allow for maximum flexibility due to special circumstances or seasonal changes.
  - 3. Provide for an editing and review routine to permit the user to change and edit time events, zones, and schedules without having to reprogram the entire sequence.
  - 4. Provide for user selectability of both tone and duration time of tone signal.
  - 5. Capable of correcting compatible brands of secondary clocks.
- B. The time display: Protected by a built-in lithium battery, which automatically corrects Administrative Telephone (ATEL) time, displays upon restoration of power which was caused by AC power failure.
- C. Output points, activated by the master clock, provided in the system for use in controlling external sounders and other devices.

#### **1.5 ADMINISTRATIVE TELEPHONE (ATEL)**

- A. Control center for communications, paging and signaling functions for the Starcall System.
- B. Contains a 12-key keypad, SPKR Phone, Talk, Volume Up/Down, and special feature keys.
- C. For voice intercom the ATEL: Provide with a handset, dial pad, speaker, microphone, and Talk/Listen button. Provide each ATEL with a 15-watt intercom amplifier, which allows for independent open voice audio between the ATEL and a remote speaker station.
- D. Provide the ATEL with a solid-state sounder for audible annunciation of incoming calls. This sounder sounds at different rates depending on the Priority level of the Current Call. The sounder: User defeatable on a priority level basis so that the ATEL provides only visual annunciation if required.
- E. Provide the ATEL with display windows to visually annunciate the status of the system. The windows display the following:
  - 1. A 16-character alphanumeric LCD display.
  - 2. When no calls are in the system, the ATEL shall display current time, day of week, and date.
  - 3. Sequential display of calls in queue.
  - 4. Configuration menu display

- F. Capable of answering the next call in the calls waiting stack by depressing only one button. System not incorporating this repeat single button response feature for answering calls shall not be acceptable.
- G. Provide the ability to store up to 128 calls in the calls waiting stack.
- H. Provide the ability to forward its call-in coverage to another ATEL.
  - 1. Provide an indication shown in both the ATEL forwarding Coverage of calls and the ATEL to which call coverage is being Forwarded to.
  - 2. When in the Forward Coverage mode and ATEL: Visibly annunciates incoming calls, and it can be used to make and answer calls or other assigned functions without undoing the Forwarding function.
- I. A user programmable "Call Cancel" feature allows the ATEL to cancel all pending normal calls under its control while leaving the higher priority level calls in the calls waiting stack.
- J. It shall be possible to manually activate and sound the time event signal to any of the thirty-two (32) multipurpose zones from the ATEL.
- K. Provide the capability for an ATEL to reset the priority level of any remote call-in device through the use of a set priority button on the ATEL control panel.
  - 1. The ATEL: Provide a "lock-out" mode for this function allowing it only to be activated when the ATEL is in intercommunication with the remote station.
  - 2. This function prevents unauthorized tampering with the priority level settings from an unauthorized ATEL.
  - 3. The system: Provide visual feedback of the priority setting when this function is engaged.
- L. Provide with a built-in tone generator, which provides for both time signal tone and user accessible (optional) tones (single chime, repetitive chime, steady tone, hi-lo alarm, wail, and warble) for use as manually, activated emergency or other signals. 25 tones are available.
- M. Provide a dedicated control labeled "PAGE" with all Administrative Telephones (ATEL's).
  - 1. The operation of this control gives access to all or particular zones for:
    - (a) Tone signaling distress or emergency signals.
    - (b) Emergency voice announcements.
    - (c) Program distribution.
- N. Provide a Program button on each ATEL for selection and distribution of one or two program channels to remote stations.
  - 1. The program channels: Distributed via the ATEL to a room or rooms, paging zones, or all rooms (remote speaker stations).
  - 2. Provide a Scan function at the ATEL to review the remote stations (rooms) selected to each of the program channels.
- O. Provide a Hold button on each ATEL to place an internal or external call on a hold status, freeing the ATEL operator to perform other functions.
- P. Provide a Scan mode to permit the ATEL operator to review room assignments of each of the program channels, call-in coverage of rooms assigned to his/her ATEL, and which of the other ATEL's (if there is more than one) are forwarding their calls to this ATEL.

- Q. A designated ATEL within a Starcall System: The ability to enter the user accessible functions for data input and programming.
  - 1. A "security code" number is required to enter this programming mode.
  - 2. When the ATEL has accessed the programming mode, the display window is used to provide prompts and other information for programming the system.
- R. The Administrative Telephone (ATEL): The ability to operate with external telephone lines provided and other information for programming the system.
- S. Each Administrative Telephone (ATEL): Provided with integral, permanently affixed operating instructions on a pull-out operating guide located under the unit and accessible by the user.

## **1.6 SYSTEM MEMORY AND INTEGRATION**

- A. The user programmable functions: Contained in a memory that is protected by a manufacturer supplied battery with a life expectancy of at least ten years.
- B. The system clock automatically restores the time of day displays on all Administrative Control Stations (ATEL's) to the proper time upon restoration of power, which was caused by AC power failure.
- C. Supply the system to allow operation of the intercommunications functions during loss of AC power. The use of U.P.S. type power supplies will not be acceptable unless supplied at the contractor's expense.
- D. Provide an uninterruptible power supply for the clock/intercom with the capacity for operating the intercom system under normal idle load for 2 hours and then operating the system at full power to all speakers for 5 minutes.

## **1.7 RELATED WORK SPECIFIED ELSEWHERE**

- A. Section 16801 - Cafetorium Sound System
- B. Section 16802 - Auditorium Sound System
- C. Section 16803 - Gymnasium Sound System
- D. Section 16805 - Music Classroom Intercom System
- E. Antennae
- F. Terminal Cabinets

## **1.8 SUBMITTALS**

- A. Shop drawings submit under provisions of Section 01330, "Submittal Procedures".

## PART 2 PRODUCTS

### 2.1 SYSTEMS COMPONENTS

**\*Any reference to a specified manufacturer or model number shall be interpreted as equal to or better than the referenced manufacturer or model number.**

- A. Central Equipment
1. The central equipment: Mounted in a standard 19-inch equipment rack. The central equipment consists of but not be limited to:
    - (a) The equipment housing.
    - (b) A power supply to provide operating DC power for the circuitry contained within the central equipment housing and four (4) Administrative Control Stations (ACS's).
    - (c) A central microprocessor unit.
    - (d) Zone circuit boards as required to meet the system requirements for remote stations and communications linkage.
    - (e) The provision for terminating the cabling from up to 512 remote stations and eight Administrative Telephones (ATEL's).
  2. The central equipment: Dukane Model 110-3546 shelf/ 110-3521 central processor.
  3. The system contains the following components as required to meet system functions:
    - (a) Provide expanded audio switching card as required Dukane 110-3534.
    - (b) Provide expanded audio routing card as required Dukane Model 110-3524A.
    - (c) Provide balanced telephone card, Dukane Model 110-3554.
    - (d) Provide expanded Adm. Telephone card, Dukane Model 110-110-3527 4-port minimum.
    - (e) Provide two (2) minimum intercom amplifier modules, Dukane Model 110-3544B.
    - (f) Provide ring supply module, Dukane Model 110-3543 as required.
- B. Administrative Telephones (ATEL's)
1. Constructed of a high impact cyclac material suitable for desktop operation.
  2. Incorporate a seamless moisture proof type membrane control panel with a plug-in cable harness for modularity. The membrane panel: Contains clearly designated "buttons" with legible and permanent designations. The buttons: Provide a tactile feel, positive touch response, typical to a mechanical push-button.
  3. Features of the control panel include:
    - (a) Telephone type keyboard containing digits 0 through 9 plus symbols # and \*.
    - (b) 16-character LCD alphanumeric display.
    - (c) Buttons designated for SPKR Phone, Hold, Menu, Program, Page, Talk, Emergency, and Volume Up/Volume Down, Tone.
  4. Provide with a built-in tone generator for use in providing time tones and manually activated tones for emergency and other signals.
  5. Light gray in color with dark gray trim, and all button markings and nomenclature sealed under a transparent protective overlay. An integral PullOut Operating Guide card part of the housing. This guide contains basic functional operating instructions.

6. Housing Dimensions: 11-5/8 inches (29.5 cm) wide, 9-3/8 inches (23.8 cm) deep, and 4-1/16 inches (10.3 cm) high without handset and 5 inches (12.7 cm) high including handset. The net weight: Not to exceed 5 pounds, 14 ounces (2.64 kg.).
  7. Provide with a 7 foot multiple conductor cable for power, data, and audio signals. Provide this with a multi-pin connector for ease in installation and maintenance. Provide the handset with a standard modular type 5-foot coil cord.
  8. The ATEL: Dukane Model 7A1110.
- C. ATEL Wall Mounted Connector Assembly:
1. Provide each ATEL with a wall plate and mating connector for the ATEL cable. Mount this connector on a standard single gang plate of stainless steel.
  2. The connector plate shall be included with ATEL.
- D. Supplemental Power Supply:
1. Provide the supplemental power supply for systems up to twenty-four (24) Administrative Telephones (ATEL's).
  2. The power supply: Capable of providing sufficient DC power to support (24) Administrative Telephones (ATEL's).
  3. Mount the power supply in a standard 19 inches equipment rack with a height not to exceed 5-1/4 inches.
  4. The Supplemental Power Supply: Dukane Model 17A365.
- E. Telephone Interface:
1. Provide the required circuitry to interface the Starcall System to central office (CO) or PABX telephone lines.
  2. Capable of performing the following telephone functions as required by the system: line seizes, line hold, hookswitch flash, ring detection, and the generation of DTMF signals for dialing.
  3. Provide CO/PABX circuit card and telephone interface with the ability to support up to eight (8) external CO/PABX lines.
    - (a) The initial line capacity: Two (2) lines.
    - (b) The line capacity: Expandable in increments of two (2) for a total of eight (8).
    - (c) Expansion of line capacity: Accomplished via plug-in modules.
  4. Provide the telephone interface for user programming, on an ATEL by ATEL basis, the assignment of incoming and outgoing telephone line access.
    - (a) Telephone lines can be assigned too more than one (1) ATEL.
    - (b) Provide the ATEL's with the ability to be restricted from either outgoing or incoming access to a telephone line on an individual line basis.
    - (c) Custom calling features, as provided from the telephone company (utilizing the "." or "#" button), functions with the telephone interface provided such features are enabled by the host phone system.
  5. If multiple line access is assigned to a given ATEL, provide a group hunt feature for accessing the lines.
  6. Annunciate incoming calls in the calls waiting window of assigned ATEL's with both a visual and audible annunciation.
  7. Make it possible to conference telephone calls with staff handsets and other ATEL's.
  8. Obtain its operating power from the Starcall System and be mounted in the Starcall equipment rack.

9. Connections to the telephone interface: Standard modular type USOC #RJ11C connectors, one (1) per line, and signal and data connections to the Star Call System shall be multiple pin connectors.
  10. FCC Part 68 Registered for connection to the telephone network, and its ringer equivalency 0.7B for each line.
  11. Telephone Interface: Dukane Model (Balance Telephone Cord) 110-354 (Ring Supply Module)
  12. External Paging Amplifier:
  13. Provided as required to meet the load requirements of the system when activated in the All-Page mode.
  14. The External Paging Amplifier: Dukane Model 1A4250.
- F. Program Sources, Preamps, Power Amplifiers, and Monitor Speakers:
1. Provide the system with equipment required for one program channel. This equipment consists of:
    - (a) Preamplifier /program sources per program channel. Dukane #RTC350P
    - (b) Power amplifier per channel capable of supporting full speaker load of all remote speaker stations. Dukane #1A4250
    - (c) Monitor speaker panel and selector switch. Dukane # 9A1685A
- G. Equipment Rack:
1. The central equipment: Housed in a standard 19 inches equipment rack. Provide sufficient vertical size to contain all of the specified equipment to be housed within. Provide the rack with a locking rear door and removable side panels. Fill all unused front panel space with the appropriate size blank panels.
  2. The Equipment Rack: Dukane Model #110-3592 (77 inches high).
- H. Remote Devices:
1. Classroom/room speakers: 8 inches with line matching transformers with 1/2, 1, 2, and 4-watt taps. Tap according to room requirement.
  2. Speakers: Dukane #5A531.
  3. Install Classroom/room speakers in a common clock/speaker enclosure.
  4. Install corridor-ceiling speakers in a ceiling grille: Dukane #6A342 with 145-226 back box and 180-2 mounting rails. Spacing of approximately 30' centers, no less than one per corridor.
  5. Call back pushbuttons.
    - (a) Provide dual momentary push buttons mounted remote from the speaker baffle for signaling the ATEL's in administration and media center.
    - (b) Cover plates: Single gang stainless steel.
    - (c) Dukane #BCSB-1D.
  6. Common clock/speaker enclosures: Provide Dukane 830-89/194-89 or 830-89/SM194-89 as per type of installation.
  7. Classroom/room clock: 10 inches Dukane # 030-10EX with numerals.
  8. Gymnasium clock and Cafeteria Clock: 12 inches Dukane # 030-12EX with wire guard only in the gymnasium.
  9. Program bells shall be:
    - (a) 6 inches Dukane # 306,120V - In corridors, spacing of approximately 60' centers, no less than one per corridor.
    - (b) 10 inches Dukane # 310, 120V - WP - Outdoor Locations, spacing of approximately 100' centers, no less than one on an exterior wall.
  10. 120V - Buzzers in classroom clock/speaker enclosure Dukane # 124.
  11. Exterior Paging Horns

## 2.2 MANUFACTURERS

- A. Dukane – Star Call
- B. Rauland – Telecenter V
- C. Manufacturers listed serve to establish a level quality.

## PART 3 EXECUTION

### 3.1 WIRING

- A. From the central equipment to each speaker run above ground a four (4)-wire conductor with two (2) wires shielded, Belden #8722 or West Penn #359B, for underground installations use AQC359.
- B. From the Master Clock run:
  - 1. 3# 12 THW - CU conductor for clock operation
  - 2. 2# 12 THW - CU conductor for program bell operation
  - 3. 2# 14 THW - CU conductor for classroom buzzer operation
- C. Provide all **soundintercom** wiring in separate raceways. Mount a momentary push-button remote from the speaker baffle for signaling the central console in each room. Install suitable type hinged terminal cabinets as indicated on plans. Provide marked terminal strips in all junction boxes. Soldered and tap joints will not be permitted.
- D. Provide all program bells and classroom buzzers wiring in separate conduit.
- E. Provide isolating barrier in clock/speaker enclosure so as to keep wiring separated.

**END OF SECTION**

**BID SHEET**  
**INTERCOM SYSTEM UPGRADE**

BETHPAGE ELEMENTARY	\$ _____
GEORGE WHITTEN ELEMENTARY	\$ _____
MILLERSVILLE ELEMENTARY	\$ _____
WALTON FERRY ELEMENTARY	\$ _____
<b>GRAND TOTAL</b>	<b>\$ _____</b>

\_\_\_\_\_  
AUTHORIZED COMPANY REPRESENTATIVE (Signature)

\_\_\_\_\_  
AUTHORIZED COMPANY REPRESENTATIVE (Printed)

\_\_\_\_\_  
PHONE

\_\_\_\_\_  
EMAIL

\_\_\_\_\_  
COMPANY NAME

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
DATE

## NOTICE TO RESPONDENTS

Responses to an Invitation to Bid will be received by the Purchasing Supervisor in the SUPPORT SERVICE FACILITY CONFERENCE ROOM, Sumner County Board of Education, 1500 Airport Road Gallatin, TN 37066. They will be received until **9:30 A.M. Local Time TUESDAY, MARCH 25, 2014** for **INTERCOM SYSTEM UPGRADE**, at which time the responses will be opened, taken under advisement and evaluated. ***BIDS WILL BE POSTED ON [www.sumnerschools.org](http://www.sumnerschools.org)***

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### GENERAL REQUIREMENTS AND CONDITIONS

1. The Sumner County Board of Education reserves the right to accept or reject any and/or all responses in whole or in part, and to waive informalities therein.
2. Any responses received after the scheduled closing time for the receipt for responses will not be considered.
3. If a mistake is discovered after the responses are received, only the Sumner County Board of Education may allow the respondent to withdraw the entire response.
4. Partial payments will not be approved unless justification for such payment can be shown. Terms will be net 30 days.
5. Payment will not be made until the said **INTERCOM SYSTEM UPGRADE** are inspected and approved as meeting all specifications by persons appointed by the Sumner County Board of Education.
6. Responses submitted must be in a sealed envelope and marked on the outside as follows:  
**RESPONSE: INTERCOM SYSTEM UPGRADE**  
**DEADLINE: 9:30 A.M., TUESDAY, MARCH 25, 2014**
7. Facsimile responses will not be considered.
8. If a successful bidder violates any terms of their bid, the contract, school board policy or any law they may be disqualified from bidding for a period of two years for minor violations or longer for major violations. Bids from disqualified bidders will not be accepted during the period of disqualification.
9. Prices quoted on the response (if any) are to be considered firm and binding until the said **INTERCOM SYSTEM UPGRADE** are in the possession of the Sumner County Board of Education.
10. No purchase or contract is authorized or valid until the issuance of a Board Purchase Order in accordance with Board Policy. No Board Employee is authorized to purchase equipment, supplies or services prior to the issuance of such a Purchase Order.
11. Any deviation from these stated terms, specifications and conditions must be coordinated with and approved in writing by the Purchasing Supervisor, Vicky Currey (615) 451-6560.
12. All bids that exceed \$25,000 must have the Company Name, License Number, Expiration Date thereof and License Classification of Contractor listed on outside of sealed envelope. As required by State of Tennessee Code Annotated 62-6-119.
13. The awarded bidder will be required to post a performance and payment bond in the amount of 25% of the contract price if it exceeds \$100,000 as stated by State of Tennessee Code Annotated 12-4-201.
14. If the project cost in excess of \$25,000 a performance bond must be secured by the requesting party in an amount equal to the market improvement value.