

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

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 12 90 cT54 the 0e0s.

# 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".





G.

#### **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 syng

- 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.



- 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".







## 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**



## NOTICE TO RESPONDENTS

Responses to an Invitation to Bid will be received by the Purchasing Supervisor at 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 B2tTo3(l3(o)-4(n)8( r)-3NI 44(r)Cfe4())l -Baeo(l)-9(au(----)12(----)1-0.003 TCfe)a.8[4--d 3 TCo 29( 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 is inspected and approved as meeting 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,