SECTION 28 6000
DURESS BUTTON SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Contract drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this Section and shall be considered a part of this section and shall have the same force as if specified herein full.

1.2 DESCRIPTION:

A. The Duress Button System will consist of a Duress System control panel, keypads with LCD displays, multi-channel receivers, power supplies, low voltage cable and wireless duress buttons. The control panel shall include panel interface / receiver(s) that allow transmission of unique alarm signals from the wireless duress buttons to the Duress System Panel.

B. The Duress Button System will allow each Teacher and select Staff Members to be assigned a pendant worn or hand held wireless duress button. The button shall feature two buttons and both buttons shall be required to be depressed in order to activate the Duress Alarm System. Upon activation of a wireless duress button, the device shall transmit a unique alarm message that shall be displayed on one of three (3) keypads. The exact location of the keypads is to be determined. Each alarm shall be displayed with the name of the person to whom the duress button is assigned and their unique room number.

C. Direct panel integration shall allow for each wireless duress button to be reported as a unique alarm when displayed at the keypad. The Security Contractor shall be responsible for all programming necessary for the system to function properly as well as entering unique names / zones / areas for each wireless duress button alarm point.

D. The Duress System Panel shall be provided with an input / output module that shall be connected to the existing Burglar Alarm Control Panel which is already monitored by a UL List Central Station. The Security Contractor shall program both the Duress System Panel and the existing Burglar Alarm Control panel to function as follows:

1. Whenever a Teacher / Staff Member (with a wireless duress device specifically assigned to that person and his or her classroom or office) depresses both buttons simultaneously on their wireless dual button duress device, the Duress System will be activated. The alarm information, the person's name that triggered his or her button and their assigned room number, shall be displayed at the Duress System keypads that are strategically located in the Principal's Office and in other locations. The Duress Alarm System keypads shall also start enunciating. Simultaneously, the Duress System Panel shall provide a single signal to the existing Burglar Alarm Control Panel. The existing Burglar Alarm Control Panel shall be programmed such that an alarm signal is immediately transmitted to the UL Listed Central Station via the existing

Burglar Alarm Panel. The Museum School shall provide instruction to their current Central Station Monitoring Service to immediately dispatch local Police.

1.3 QUALITY ASSURANCE:

A. Industry Referenced Standards. The following specifications and standards are incorporated into and become a part of this Specification by reference.

1. NFPA 70 National Electric Code
2. UL 50 Enclosures for Electrical Equipment

1.4 INSTALLER'S QUALIFICATIONS:

A. Firm with at least 3 years of successful application, installation, and testing experience on the specified systems and equipment. All supervisors and installers assigned to the installation of this system or any of its components shall have factory certification from each equipment manufacturer that they are qualified to install and test the provided products. General electric trade staff shall not be used for the installation of the security system and associated hardware. All installers assigned to the installation of this system or any of its components shall have a minimum of 3 years experience in the installation of the specified equipment.

B. The Installer must be a licensed Low Voltage Contractor in the State of Georgia.

C. The responsibilities of the contractor shall include but not be limited to the following:

1. Supply and Installation of a new Duress System Panel and associated equipment as documented in the drawings and specifications.
2. Supply and installation of conduit and low voltage cable required for the Duress System Panel.
3. Testing and check-out of all Duress System and associated equipment.
4. Training for all Duress System and associated equipment.
5. Warranty for all Duress System and associated equipment.
6. As-Built drawings for the complete Duress System.

1.5 SUBMITTALS:

A. Test Plan: After starting the project, the Contractor shall submit a test plan, which defines the tests required to ensure that the system meets technical, operational, and performance specifications. The test plan must be submitted 10 days prior to the proposed test date. The test plan must be approved before the start of any testing. The test plan shall identify the capabilities and functions to be tested, and include detailed instructions for the setup and execution of each test and procedures for evaluation and documentation of the results.

B. A 100% device by device test will be conducted by the vendor under the supervision of a Fulton County School representative. Punch lists will be developed at that time by the owner representative and furnished to the contractor. All punch list items must be corrected and verified prior to acceptance of the system.

1.6 DRAWINGS

A. The Drawings indicate the arrangement of Security equipment. Conditions indicated on architectural drawings shall govern for this work. Coordinate installation of recessed equipment with concealed ductwork and piping, and wall thickness.

B. All of the raceways required for Duress Button system are not shown on the Drawings. Raceways that are shown are minimum sizes and quantities. Contractor shall provide all additional quantities, routing, and sizes of raceways and pull/junction boxes to meet all codes, manufacturer's recommendations, and Specification requirements.

C. Raceway home runs shall be installed as shown on the Drawings, and as required by the associated equipment manufacturers.

1.7 FINAL CLOSEOUT DOCUMENTS:

A. Original content, taken directly from the Contract Drawings, shall be rejected. As-built drawings must show true as-built conditions and must be prepared using the Security Contractors title block, symbols and notes explaining specific details of the installation.

B. The following are minimum requirements for close out documents. Final payment shall not be issued until all requirements have been met.

1. Prior to project closeout, provide two (2) sets of complete data on equipment used for the school in this project. This data shall be in bound form and shall include 11 x 17 as built drawings.

2. All as built drawings shall include system interconnection diagrams with major components identified and number and type of interconnecting conductors. Drawings must show actual as built conditions and point-to-point diagrams.

3. Two (2) full size sets of as built drawings shall be provided in hard copy format.

4. As built drawings shall be provided on CD and in electronic format (PDF and AutoCAD - DWG).

5. Operating and Maintenance (O & M) Manuals shall be provided to each school and Owner’s Representative total of 2 copies).

6. Certificate or Letter of Acceptance from Principal of school.

7. Training Sign-In Sheets for each training session.

8. Completed (meaning open items have been cleared) Construction Observation Report generated by Consulting A/E and signed by Security Contractor.

9. Security Contractor Warranty Form / Letter providing detailed description of warranty provisions, duration and start date.

C. All related documents required for substantial completion, system acceptance and final payments

1.8 ACCEPTABLE MANUFACTURERS:

A. Reference the PRODUCTS Section for approved Manufacturers.

1.9 WARRANTY:

A. The contractor shall warrant the Security Surveillance System for one year from date of start-up against defects in equipment or workmanship. Failed equipment or devices shall be replaced by the contractor at no cost to the owner. Owner's personnel may perform initial trouble investigation but replacement of failed equipment and escalated problem support will be handled by the contractor.

B. The Contractor shall provide a Warranty Letter indicating the start date of the warranty. The Warranty Letter shall also provide contact information (Company name, Service Supervisor's name and phone numbers for normal working hours and Emergency Service request). The warranty period will not start until Warranty Letter has been reviewed, approved and agreed upon by Fulton County Schools.

PART 2 – PRODUCTS

2.1 DURESS SYSTEM PANEL:

A. The only approved Duress System Panel for this project is the Honeywell VISTA-250.

B. The Duress System Panel shall be provided in a metal enclosure with hinged, lockable front door.

C. The Duress System Panel shall be UL Listed for Commercial Burglary.

D. The Duress System Panel shall be provided with an on-board digital dialer.

E. The Duress System Panel shall be capable of providing 8 partitions.

F. The zones shall include 8 hard-wired zones and be expandable to 249 unique inputs. A combination of hardwired, looped and wireless may be utilized. All wireless transponders must have constant supervision (constantly poled for communication failure and battery status).

G. The Duress System Panel shall be powered by a dedicated 120 VAC / 20 amp dedicated power circuit.

H. Battery backup shall be provided for the Duress System Panel. The battery shall be sized for this burglary application and provide a minimum of 4 hours battery back-up for the Duress System Panel and keypads connected to the system.

I. The entire alarm system shall be protected by surge protection.

J. System programming shall be nonvolatile and shall not be lost if there is a loss in power.

K. Load calculations must be performed to ensure that maximum output of the Duress System Panel's internal power supply has not been exceeded. Should the output of the internal power supply be exceeded due to the number of powered devices connected to and powered by the system, an external power supply must be added. The external power supply must be monitored and supervised for AC power fail, low battery and tamper.

2.2 KEYPADS:

A. Keypads shall be a 2-line, 32-character English language display for complete zone identification and system status, keypad addressable system control units. The keys

shall be located behind a protective door and are continuously backlit. The keypad shall mount directly to a single gang electrical box.

B. All keypads associated with this system shall be Model #6160.

2.3 PANEL INTERFACE / RECEIVER / REPEATERS:

A. The panel must allow for the connection of the Inovonics N7290 panel interface as well as the connection of Inovonics EN4232 receivers and Inovonics EN5040 repeaters to intelligently amplify transmissions from any EchoStream series transmitter.

B. The panel interface / receivers / repeaters shall be provided with a transformer that must be connected to un-switched and dedicated 120 VAC / 20 power circuits. The Security Contractor shall be responsible for the supply and installation of the 120 VAC power circuits required for the panel interface, receivers and repeaters. Extending an existing circuit will not be acceptable.

2.4 WIRELESS TRANSMITTERS:

A. The only approved wireless transmitter duress device for this project is the Inovonics EN1223D. a total of forty (40) wireless transmitters with the batteries and accessories noted by these specifications, shall be provided.

B. The wireless transmitters are battery powered devices that may be worn as a pendant or be a hand held device. BAT609 3.0Volt batteries, metal neckless chains and belt clips shall be provided with each wireless transmitter.

C. The wireless transmitter shall be a dual button device and required depression of both buttons simultaneously, for activation.

D. The wireless transmitter shall incorporate a dimmed LED to indicate activation.

E. The wireless transmitter shall be fully supervised to ensure reliability.

2.5 POWER SUPPLIES

A. The Altronix SMP3 Power Supply / Battery Charger is the only approved power supply for this project.

B. The power supply must be installed in a metal, lockable enclosure with hinged door.

C. The power supply must be powered by a 120 VAC / 20 VAC dedicated power circuit.

2.6 MONITORING:

A. Off-site monitoring for the existing Burglar Alarm System, is currently being provided by a UL Listed Central Station.

PART 3 – EXECUTION

3.1 WIRING:

A. The Contractor shall provide drawings and calculations to insure the wire gauge has been selected per the manufacturer's requirements.

B. Duress Button system wiring shall be installed per the manufacturer's recommendations to prevent interference with intercom, telephone, and data cabling.

3.2 INSTALLATION:

A. The Duress Button System shall be supplied and installed by a contractor that has been continuously engaged in the sales and installation of Duress Button Systems for a minimum of three (3) years. The contractor shall provide a complete and operational system and include all power supplies, batteries, panels, and accessories required to have the system meet the required specifications.

B. Installation drawings shall be provided that show control panel, interface, receiver and repeater locations.

C. The Contractor shall provide a warranty per the contract terms and conditions.

3.3 TRAINING:

A. Provide factory authorized service representative training to The Museum School Representatives. This training is for system operators. This training shall include all operating modes and functions.

B. Provide four (4) hours of on-site training. Training must include user level instruction as well as programming instruction (such as assigning wireless duress devices to specific individuals as well as changing and re-assigning those devices to other individuals).

C. Provide operating and maintenance manuals including system configuration and devices identification as well as a backup copy of the Duress Button System program and configuration software.

End of Section