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**BULLETIN
TO
DESIGN AND CONSTRUCTION PROFESSIONALS**

Date: July 1, 2017
Bulletin: 0002 – 2017
Section: 28 16 00 – Burglar Alarm System
Re: APS Design Guidelines and Standard Specifications Update

- Item 1:** This is a clarification, change or addition to the existing Atlanta Public Schools (APS) Design Guidelines and Standard Specifications dated December 1, 2010 and any previous Bulletins.
- Item 2:** This set of requirements and specifications should be implemented IMMEDIATELY on all projects that are in the "Construction Document" phase of the project delivery process. On projects where the "Construction" has begun, these requirements and specifications should be implemented IMMEDIATELY, WHERE PRACTICAL as to not adversely impact the schedule, budget or overall delivery of the project.
- Item 3:** The existing APS Standard Specification Section 28 16 00 Burglar Alarm System should be replaced in entirety by the attached updated version (dated May 8, 2017, 5 pages).



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Director of Capital Improvements



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Facilities and Construction

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Burglar Alarm Specifications

May 8, 2017

Reviewed By:

Charles Johnson, APS Building Systems Programmer

5/11/17
Date

Approved By:

Ralph Velez, Director of Security

5/11/17
Date

Burglar Alarm Changes:

Added Intellisense E-Control Freezer/Cooler Probes

2.0 CURRENT SITUATION

APS has Bosch D9412G V2-4 systems installed at 100% of its sites. The alarm panels are integrated with the keyless access alarm monitoring system by way of dial tone and network devices to alert Security of breaches throughout the district.

3.0 SCOPE OF WORK

- 3.1 The work provided within this specification includes a complexly zoned burglar alarm system as required for maintenance of existing, new installations, and/or integration, as required. Work shall be performed in accordance with all local codes and regulations and installation guidelines as set in this specification. There shall be a single integrated system (burglar) that shall connect all buildings and additions on the school site. Existing systems must be matched in any new additions or new construction. During renovations, the system in the renovated area that is being replaced must match the system that is currently in operation and must become an integral part thereof.
- 3.2 The vendor must insure complete connectivity and integration to each existing system in those instances where an addition or upgrade is warranted.
- 3.3 New construction projects shall be competitively bid among the vendors who are approved under this solicitation.
- 3.4 **Burglar Alarm Specifications**
 - 3.4.1 The awarded vendors will be required to provide a list of burglar alarm equipment.
 - 3.4.2 The security control panel for new projects and some existing sites is Bosch D9412G V2/V3.
 - 3.4.3 The keypad shall be a Bosch D1260 or like model.
 - 3.4.4 If required, the eight zone expander shall be a Radionics/Bosch D8128D Octopopit or the D9127T popit module can be used in conjunction with a D8125 module.
 - 3.4.5 The network interface shall be the Bosch 426 network interface board. There shall be a total of two (2) Bosch 426 network interface modules installed. One shall be programmed for communication with the Lenel alarm monitoring software and the other is to be configured for RPS communication.
 - 3.4.6 Power supply shall be an Altronix SMP5 with an Altonix T2885 open face transformer.
 - 3.4.7 The only approved motion detectors shall be dual technology or tri tech technology only. Approved detection devices are as follows:
 - a. Intellisense DT 901
 - b. Intellisense DT 907
 - c. Bosch DS720
 - d. Bosch DS9360
 - e. Bosch DS950
 - f. Bosch DS970
 - g. Bosch ZX970
 - 3.4.8 The only acceptable door contact shall be a GRI 4532 metal contact or Sentrl 1078 ¾” recessed door contact.

- 3.4.9 Batteries for control and power supplies shall all be Werker 12 volt 7 amp hour batteries.
- 3.4.10 The only approved equipment can is the Bosch can.
- 3.4.11 All wire must be Genesis cable of a plenum rated type. All wire used should be at least 22 gauge and stranded. No solid type wire will be permitted.
- 3.4.12 The only approved freezer/cooler probe will be E-control Intellisense TMPNTC-22. The gateway installs in the nearest IDF closet

3.5 Installation Requirements

- 3.5.1 All control equipment will be mounted in either an IDF or MDF room.
- 3.5.2 All control equipment (panel, expanders, and power supplies) will be mounted inside of the appropriate Bosch can or cans.
- 3.5.3 Control cans are to be mounted at a height of 5 feet measured from floor to bottom can.
- 3.5.4 All wiring to control equipment will be placed in EMT conduit of appropriate size. Wiring is only required to be in conduit in the room where control equipment is located. For example, if a room has a drop ceiling, conduit will be required to extend only 5 inches above ceiling grid. If a room has no drop ceiling, then conduit must be extended into next room or hallway with drop ceiling.
- 3.5.5 Wiring between control cans, located in the same room, shall run in conduit of appropriate size. No exposed wiring will be permitted at control equipment.
- 3.5.6 The wiring inside the control equipment cans will be well routed and neatly terminated. Each wire inside of control equipment shall be labeled with a legible marking of where the wire goes. A P- touch label marker is recommended,. To ensure a neat job, wire guides and tie wraps will be permitted.
- 3.5.7 All Bosch control cans are to be mounted with a minimum of four number 10 screws. Appropriate wall anchors are required if can is not mounted to wood or metal surface. A plastic ¾ inch long by ¼ inch diameter anchor is recommended for number 10 screws.
- 3.5.8 All power supply control transformers shall be placed inside of above mentioned control cans. This means that an electrical receptacle will need to be placed inside of can. Arrangements need to be made with electrical contractor.
- 3.5.9 The Inteelisense DT435T, Bosch DS950, Bosch DS970, and Bosch ZX970 motion detectors will be mounted at a height of 7 feet 6 inches measured from floor to bottom of detector. The Intellisense DT 901, Intellisense DT907, and Bosch DS720i motion detectors will be mounted at 8 feet measured from floor to bottom of detector's mounting base. These mounting heights follow manufacturer's recommendations and are not to be deviated from. The Bosch DS9360 will always be mounted to ceiling tile and no higher than 12 feet measured from floor.
- 3.5.10 The Intellisense DT435T, Bosch DS950, Bosch DS970, and Bosch ZX970 will always be corner mounted as indicated on architectural drawings. This detector should always face away from outside windows. These detectors will be mounted with at least two number 6 screws at least ¾

inches in length with wall anchors measuring $\frac{3}{4}$ inches long by $\frac{3}{16}$ inches in diameter.

- 3.5.11 The Intellisense DT 901, Intellisense DT 907, and Bosch DS720i will be mounted in accordance with architectural drawing placement. These detectors will be mounted with at least four number 10 screws at least 1 inch long with wall anchors measuring 1 inch in length by $\frac{1}{4}$ inches in diameter.
- 3.5.12 All wiring below the ceiling level to detector will be installed with either 200 or 500 series wire mold and appropriate mounting hardware. Wire mold shall extend from detector to at least 5 inches into drop tile ceiling. The wire mold will only be necessary if no inner wall conduit is run. No stick on molding will be accepted.
- 3.5.13 Motion detectors will be mounted so as their field of view is not directed toward outside windows.
- 3.5.14 Detector placement will be in every ground level room with outside windows or doors that are accessible from the ground. In judging this, if window or door is lower than 12 feet in height from ground, then a detector or contact is required.
- 3.5.15 External door contacts are to be installed on all exterior doors.
- 3.5.16 Door contacts need to be installed in such a way as to hide wiring as best as possible. The contacts metal jacketed cable will need to run into a shallow wire mold box and wire mold should be extended from box into ceiling.
- 3.5.17 Each alarm device will be placed on a separate zone.
- 3.5.18 Exact detector and door contact placement will be reviewed and finalized on shop drawings by APS staff.
- 3.5.19 Keypads shall be installed in the main office reception area and near the outside exit door of the kitchen. Sometimes it shall be required, depending on the needs of the school, to add additional keypads. These shall be marked on drawings by APS staff.
- 3.5.20 Keypads shall be mounted with screws provided by manufacturer. The screws should run into a $\frac{3}{4}$ inch long by $\frac{3}{16}$ inch diameter plastic anchor.
- 3.5.21 Keypads shall be mounted at a height of 60 inches measured from floor to bottom of the keypad.
- 3.5.22 Wire mold or inside wall conduit shall be used to run wire from keypad to at least 5 inches above ceiling tile grid.
- 3.5.23 All wire between alarm devices (motion detectors, door contacts) and control equipment must be 22 gauge 4 conductor stranded copper cable or better depending on current consumption and length of wire run.
- 3.5.24 All output terminals or transformers to device it is powering (control panel or power supply) must be 18 gauge 2 conductor stranded copper cable.