ADDENDUM NO. 1

February 20, 2020

RE: **Bid #040.20.B3, Three School Select Exterior Door Replacement**

FROM: **Purchasing Office**
Howard County Public Schools
10910 Clarksville Pike
Ellicott City, MD 21042
(410) 313-6723
(410) 313-6789 fax

TO: APPROVED PROSPECTIVE BIDDERS

This addendum forms a part of the Contract Documents and modifies the Original Bidding Documents as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Price Sheet/Form of Proposal. Failure to do so may subject the Bidder to disqualification. This Addendum consists of three (3) pages.

QUESTIONS & ANSWERS:

1. **QUESTION:** Are we providing the keys as required in the schedule?
   ANSWER: Master and submaster keys are not required. Refer to "Changes to Specifications" item 1a below.

2. **QUESTION:** Whose insert must we supply for the key cabinet?
   ANSWER: Key spaces are already in the existing key box. An insert in the existing key cabinet is not required. Refer to "Changes to Specifications" item 1b below.

3. **QUESTION:** What is the specifications for the new card readers that we are supplying?
   ANSWER: Refer to Electrical and Access Control Requirements included in this addendum under SKA-1.1 for new card reader specifications.

4. **QUESTION:** Who is the County's preferred vendor for programming the reader's? (Company name, contact person, and phone number)
   ANSWER: For installation and programming of new card readers, bidders may consider the following firm:
   Ark Systems
   9176 Red Branch Road
   Columbia, MD 21045

5. **QUESTION:** What is the specification for the power supply that you want to use?
   ANSWER: Refer to specification section 087100, page 14, section 2.22 "Auxiliary Electrified Door Hardware", paragraph A3 for power supply basis of design information.

6. **QUESTION:** If the existing ADA opener is being used with a new card reader and electronic panic bar, will it interface with the new electronic panic bar? If not, who is responsible for that?
   ANSWER: There is no instance where a new card reader is being installed where an existing ADA opener is to remain.

7. **QUESTION:** Since this has State money, is this a wage scale project?
   ANSWER: This is not a Wage Scale project.

8. **QUESTION:** Are there any liquidated damages or penalties for this project?
   ANSWER: Yes, $1,000 per day, as noted on page 2 of AIA 101-2007 Standard Form of Agreement between Owner and Contractor.

CHANGES TO SPECIFICATIONS

1. Section 087100 “Door Hardware”;
   a. Page 10, Section 2.12, paragraphs C and D shall be revised as follows:
      “C. Provide the following key quantities:
         1. Standard Keys: Provide two keys per lock.
         2. Master Keys: N/A
         3. Submaster Keys: N/A
      D. Existing System:
         1. Key locks to existing keying system of each school. School system will supply core mark and key way for each school during construction.”
   b. Page 10, Section 2.12, paragraph G shall be deleted.

CHANGES TO DRAWINGS

1. Drawing Sheets G1.1 through G1.3;
   a. “Electrical and Access Control Requirements” added to these sheets. See copy of these notes in SKA-1.1, ATTACHMENT A.

END OF ADDENDUM

Electrical and Access Control Requirements

General Notes:

1. These notes address the conduit, boxes, conductors, equipment, and installation of new electrified door hardware and card readers where indicated in the plans.
2. All equipment, construction, and installation must meet requirements of the latest accepted revision of local, state, and federal governing codes including but not limited to: Howard County Building Code, NFPA 70, IBC, IECC, and FCC part 15. Electrical control panels, equipment, materials and devices provided or installed shall bear a UL label.
3. Submit product data for each item of equipment as required by Division 01. Maintain a set of drawings to record actual construction including measured locations of concealed construction, field changes, and details not on Contract Drawings. Submit operation and maintenance data in accordance with Division 01 requirements.
4. Drawings are diagrammatic, and do not indicate all fittings or offsets in conduit or all pull boxes, access panels, or other specialties required.
5. Install conduit exposed to view parallel with the lines of the building and as close to walls, columns, and ceilings as may be practical, maintaining adequate clearance for access at parts requiring servicing. Install conduit a sufficient distance from other work to permit a clearance of not less than 0.5 inch (15 mm) between its finished covering and adjacent work. No conduit shall be run below the head of a window or door.

Firestopping:

1. Maintain barrier and structural floor fire resistant ratings including resistance to cold smoke at all penetrations. Provide asbestos-free systems or devices listed by UL conforming to the construction type, penetrant type, annular space requirements, and fire rating able to withstand the passage of cold smoke for every opening and penetration in floors or fire-rated construction. Ensure an effective smoke barrier in each sealed penetration. Close unused portions of opening with appropriate firestopping material.

Wiring:

1. Copper building wire (600V max.) shall be UL listed and NEMA WC 70 compliant; Copper, 98 percent conductivity, suitable for 600V duty, rated 90-degree Celsius for we/dry applications; solid bare annealed copper for No. 12 complying with ASTM B3. Conductors shall be insulated with type THHN/THWN-2 complying with UL-83; PVC insulation, nylon jacket and marked on the outer braid denoting size, class, and manufacturer in solid colors. Provide color-keyed wiring accessories from 3M Company "Scotchlok" or equal from King Innovation, Tomas & Betts, or Ilsco.
2. Type MC cable shall be UL 83 and UL 1569 listed; 600V, multi-conductor with ground conductor, and aluminum or steel interlocked armor. Conductor and insulation shall match requirements of copper building wire above. Fitting shall be UL 514B listed; steel, equal to KonKore, not Zinc die-cast.
3. Install minimum No. 12 wiring for 120-volt branch circuits. Install wires and cables concealed in raceway whether concealed or exposed except wiring concealed above accessible suspended ceilings or wiring in ceiling spaces of communications equipment rooms where cables can be installed on J-Hooks. Conceal raceway except in unfinished spaces. Cable not in raceway shall be installed from separate supports not used by any other system and without damaging conductors and insulation, including an "s" loop to accommodate expansion. Provide plenum cable or conduit in ceiling plenums used as a part of the HVAC system. Pull cable using means and methods that prevent damage to the conductor and insulation. Splice conductors only at junction boxes.
4. Install No.12 MC cable in compliance with NFPA 70. Type MC cable may be used for branch circuits as light fixture whips, or to devices in metal stud walls and shall not be installed in masonry partitions. Maximum length is 6-feet, terminating at boxes at each end.

Conduits:

1. Conduits shall be hot-dip galvanized, intermediate steel conduit (IMC) confirming to UL 1242 and ANSI C80.6. Steel conduit shall be manufactured by Allied Tube & Conduit, O-Z Gedney, or Wheatland Tube Co. Steel fittings shall be cast iron with full threaded hubs. Steel fittings shall be manufactured by Cooper Crouse-Hinds, Hubbell, Inc., O-Z Gedney, Spring City Electrical Manuf. Co., Thomas & Betts, or Wheatland Tube Co. Electrical metallic tubing (EMT) shall be hot-dip galvanized conforming to UL 797 and ANSI C80.3 EMT fittings shall be concrete or rain tight, compression or set screw type, with plated steel with nylon insulating throats. Steel pipe sleeves shall be ASTM A 53, Type E, Grade B, schedule 40, galvanized steel.
2. Install minimum 1/2-inch conduit. Install IMC with screw joint couplings for wiring to exterior equipment. Install EMT, max. 2 1/2-inches, except as noted above.
3. Install vertical conduit runs plumb and horizontal runs level and parallel with building walls. Close each run of conduit after completion to prevent entrance of moisture and debris. Provide a liquid tight seal where conduit is exposed to continuous or intermittent moisture and coat exposed threads with a bituminous protective coating. Provide insulated bushings where conduit is connected to a cabinet, junction box, or pull box, and where conduit is stubbed up above ceilings. Install pull rope and conductors only after the conduit system is entirely completed and wet materials are dry.
4. Install sleeves in coordination with firestopping systems. Seal space outside of sleeves with grout for penetrations of masonry and with recommended joint compound for gypsum board assemblies. Seal penetrations through exterior walls with mechanical sleeve seals.

Boxes:

1. Boxes shall be NEMA OS1 galvanized stamped sheet metal. Boxes for exposed locations shall be NEMA FB 1, Type FD cast metal with gasketed cover. Boxes in masonry partitions shall be square cornered boxes, 3 1/2-inches or 4-inches deep with raised tile wall devices covers. Size boxes according to conduit arrangement and not less than NFPA 70 requirements. Boxes shall be manufactured by EGS Elec. Group, RACO/Hubbell Elec. Products, or Steel City/Thomas & Betts.
2. Provide box at each outlet and appurtenance, suitable for the duty intended. Coordinate box locations with conduit installations. Secure boxes in place, plumb, level, and with the device front even with the finished wall surface. Identify on the outside cover of junction boxes in ceiling spaces with pain or permanent black marker with the system type.

Access Control:

1. The contractor shall provide all labor, equipment, materials, and programming necessary to provide new exterior card readers where indicated on the plans to operate with electrified hardware provided under division 08, operate with each school's intrusion detection system, and fully integrated with each school's existing access control system. Installation personnel shall be factory-certified installers of the access control system manufacturer.
2. Identify all access control equipment installed and indicate function, equipment served, and area served. Test the circuits, access control system, and low voltage alarm systems after completion. Provide results of tests showing the circuits are free from short circuits, free from unspecified grounds, resistance to ground of each non-grounded circuit is less than one megohm, circuits are connected per applicable wiring diagrams, and are operable. Repair and retest systems until demonstration of correct operation. Coordinate with the Owner for instruction of operation and adjustment of new materials.
3. Submit calculations substantiating battery capacity of the existing control system to provide 4 hours of back up for the expanded system. Submit diagrams of the expanded access control system riser and layout drawings of each school's floor plan indicating proposed device locations for review and approval.
4. Access control system components shall be AMAG Control System; no substitutions. Wall mounted card readers shall be HID Proximity ThinLine II. Door frame/mullion mounted card readers shall be HID MiniProx proximity style card reader with LED, indoor/outdoor design. Provide orange, plenum rated cables/wiring for access control system connections. Provide J-shaped, 2-inch wide hook-style cable supports with rolled edges with orange finish as necessary to support new access control system connections. Provide power supplies and standby batteries as required to support expanded access control systems. Provide additional software licenses as required for expanded access control systems.
5. Contractor shall review the existing access control system and bring to the Owner's attention if the addition of card readers requires changes to the existing access control system such as controllers, transformers, modules, network interface cards, etc.
6. Install wiring per NECA 1 requirements. J-hooks shall be dedicated for access control system wiring. Secure wiring to hooks with velcro ties. Boxes and enclosures containing access control system components or cabling with public access shall be provided with a lock. Equivalent junction boxes shall be covered with a cover plate secured with tamperproof screws. Boxes above the ceiling area are not considered accessible. Separate access control wiring from potential EMI sources.
7. Provide a minimum of two hours of functional acceptance testing, demonstrating each device and entire access control system are operational to HCPSS Facilities Personnel

F. 1982
SM+P
ARCHITECTS
1100 CATHEDRAL ST BALTIMORE, MD 21201
TEL 410-685-3582 WWW.SMP-ARCHITECTS.COM

ELECTRICAL AND ACCESS CONTROL REQUIREMENTS:
SCALE: N/A

HCPSS THREE SCHOOL SELECT DOOR REPLACEMENTS

PROJECT # 19035.00
DATE 02.20.2020
DRAWING # SKA-1.1