SECTION 08740

ELECTRO-MECHANICAL HARDWARE

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes:

1. Items known commercially as electro-mechanical hardware, required for special applications at limited doors.

2. Types of electro-mechanical hardware:
   a. Key switches.
   b. Electronic access.
   c. Electrically activated locksets.
   d. Electric strikes.
   e. Electro-Magnetic locks.
   f. CCTV hardware.
   g. R-X Switch Kit

B. Related Sections:

1. Section 06200 - Finish Carpentry: Installation of finish hardware.
2. Section 08100 - Metal Doors and Frames.
3. Section 08210 - Wood Doors.
4. Section 08710 - Finish Hardware: Including automatic door operators and electrically activated panic hardware.
5. Hardware for Special Door Units: Refer to applicable special door sections.
6. Divisions 6 and 12: Casework hardware.

1.2 REFERENCES:

B. Fire-Rated Openings:
   1. National Fire Protection Association (NFPA) Standard No. 80. This requirement takes precedence over other requirements for such hardware.
   2. Underwriters Laboratory (UL).

C. Emergency Exit Devices:
   1. Fire-Rated Doors: Provide UL or WHI label on exit devices indicating "Fire Exit Hardware".

D. Wiring:
   1. Perform all wiring and electrical work in accordance with NFPA No. 70, "National Electric Code".
   2. Security wire to be color coated “Green” if at all possible on larger projects.
   3. Please contact Access Services for CU Standard CCURE wiring diagrams prior to bidding and submittals.

1.3 SUBMITTALS:

A. Manufacturer's technical product data of each item of hardware.

B. Shop Drawings:
   1. Submit shop drawings customized to this installation showing system design, layout and wiring diagrams.

C. Hardware Schedule:
   1. Organize hardware schedule into "hardware sets" indicating complete designations of every item.
   2. Coordinate with other hardware requirements of Section 08710.
D. Templates:
   1. Hardware templates to fabricators of other work which is to receive electro-
      mechanical hardware.

E. Record Drawings:
   1. Submit complete as-built CAD drawings identifying each component, system
      operation, and wiring system in accordance with Appendix 6 requirements.

F. Charts:
   1. Port charts for all new and modified construction

G. Wiring Diagram:
   1. Factory authorized wiring diagram for all electrified hardware.

1.4 QUALITY ASSURANCE:

A. Supplier Qualifications:
   1. Recognized hardware or security system supplier, with warehousing facilities,
      who has been furnishing hardware and equipment of this type in the
      Denver-Metro area for a period of not less than 3 years.
   2. Employs an experienced AHC certified hardware consultant with electronic
      hardware experience, available for consultation during the course of the work.
   3. Factory authorization and certification for installation of certain brands of
      hardware and equipment is required.

B. Access Services must be notified three (3) weeks prior to planned installation of device(s)
   that will require data communication.

1.5 WARRANTY:

A. Failure on parts of all electro-mechanical hardware for 2 years.
1.6 MAINTENANCE:

A. Maintenance Manuals:

1. Submit maintenance manuals identifying operating procedures and normal maintenance required for each type of hardware required. Include a complete parts list.

PART 2 - PRODUCTS

2.1 PANELS:

A. Manufacturers:

1. Software House CCure
   a. iStar Pro
   b. iStar Edge
      i. Contact Access Services for approval.

2.2 READERS:

A. Manufacturers:

1. Software House CCure
   a. RM2-MP
   b. SWH-4200
      i. Contact Access Services for approval.

2.3 KEY SWITCHES:

A. Manufacturers:

1. Securitron (MKA)

2.4 ELECTRONIC ACCESS:

A. Manufacturers:

1. The University of Colorado campus working with Access Services utilizes an
existing electronic access control system that operates with our campus
OneCard. This system should be incorporated into the project. Hardware
schedules will need to be created/revised in order to accommodate hardware
integration. The campus standard system is the Sensormatic CCure 800 (or
current version, as specified by Access Services) and only factory certified
dealers are authorized to purchase and install such equipment. Access Services
can provide the names of at least three such dealers for competitive bidding
purposes. Further discussions with the Owner (Building Proctor and Access
Services) will be required for proper specification and installation of access
control and CCTV systems. The Owner is the Security Consultant for campus
security systems.

2. Contact UCB Access Services Staff for complete list of Software House
products currently used on CU Boulder Campus prior to submittals or bidding.

3. Please contact Access Services for specific CCURE wiring diagrams for
competitive bidding.

2.5 ELECTRIC STRIKES:

A. Manufacturers:

1. H.E.S. (1003U series)\1006.
2. HES Smart Pak
3. HES Option Plate
4. Contact UCB Access Services staff for specific upgrade options.

2.6 ELECTRO-MAGNETIC LOCKS:

A. Manufacturers:

1. Schlag 490 Series with MBSS
2. RCI 8371, 8372 or 8322 with MBSS/LED

2.7 ELECTRIFIED LEVER SETS

ONLY SPECIFIC H.E.S. 1006 WHEN
DOOR OPENS INTO SECURE ROOM.
IF INSTALLING NEW FRAME PLEASE
PREP FRAME FOR H.E.S. 1006 STRIKE
AND ¾” DOOR CONTACT

ONLY SPECIFIC SCHLAG 390 SERIES
DOORS TALLER THAN 8’
OTHERWISE USE RCI. MAGPOST
MAYBE REQUESTED ON 8’ OR
TALLER DOORS, CONTACT ACCESS
SERVICES FOR DETAILS
1. Schlag L9080EU-RX (Fail Secure)
2. Schlag L9080EL-RX (Fail Safe)

2.8 POWER SUPPLY

A. Manufacturers:

1. Von Duprin PS914-2RS x 2BB - *For Von Duprin Applications*
2. Altronix Maxim 33 with PD4

2.9 ELECTRICAL POWER TRANSFER:

A. Manufacturer:

1. Von Duprin, Inc. EPT-10.
2. Securitron EPT

2.10 ELECTRIFIED HINGES

A. Manufacturer

1. Murray 18/2 x 24\2

2.11 CCTV HARDWARE:

A. Digital Video Recorders or Network Video Recorders

1. Intellex Digital Video Management System (contact Access Service for required software version)

2. Please contact Access Services for approval of camera system prior to bidding or submittals

B. Cameras

1. Panasonic WV-CW 500 Series or better (must have SDII function).
2. Sensormatic Speed Dome Ultra 8 series or better.
3. AXIS P3301 Indoor

Door must be cored or prepped if new to accommodate wire pathway for electrified lock set. Door frame and door if new should be prepped for power transfer.
C. Accessories

1. Altronix Camera Power Supply
2. Pelco, American Dynamicx, or Axis power supply, mounts, and enclosures.
2. Contact UCB Access Services staff for other options.

2.12 EMERGENCY EXIT BUTTON

A. Manufacturers:
1. Securitron EEB3N

2.13 DOOR CONTACTS:

A. Manufacturers:
1. Sentrol Magnetic Contacts
   a. 2505A Armored, wide gap magnetic contacts
   b. 1078W Wide gap concealed magnetic contacts

2.14 REQUEST TO EXIT DEVICE:

A. Manufactures
1. Von Duprin
   a. RX SW-Kit

2.15 FINISHES:

A. Match the finish of the locksets specified in Section 08710.
B. Coordinate all the various manufactured items furnished on this work to ensure an acceptable uniform finish.
C. All exposed security conduit must be painted and accepted by CU Access Services

PART 3 - EXECUTION
3.1 SECURITY PRODUCT DESIGN AND IMPLEMENTATION:

A. Contact Access Services for security consultation and Engineering

B. All CCURE Programming to be done by Access Services or approved security contractor.

3.2 START-UP, DEMONSTRATION, AND INSPECTION:

A. Perform start-up of system, a full system check-out and any required adjustments such that system meets Owner's operating requirements and any Code requirements.

B. Demonstrate system operation to Owner's personnel. Instruct Owner's personnel in proper operation and maintenance of each item.

C. Provide CCURE Port Chart so that Access Services can program all related items

D. Full inspection must be done by Access Services in order for job to be signed off

END OF SECTION 08740