PART 1 GENERAL

1.1 SECTION INCLUDES

A. Keyless, electronic access control using FIPS 201 compatible credentials.

1.2 RELATED SECTIONS

A. Section 08710 - Door Hardware.

1.3 REFERENCES

A. BHMA (Builders Hardware Manufacturers Association) – A156 series.

B. DHI (Door and Hardware Institute) – Standard hardware positioning dimensions.

C. NFPA 80 – Fire Doors and Windows.

D. NFPA 101 – Life Safety Code.

E. NFPA 252 – Fire Tests of Door Assemblies.

F. ANSI/NFPA Pamphlet No. 80, Table 2-8A – Installation of Swinging Doors with Builders Hardware

G. ANSI A 117.1 – Accessible and Useable Buildings and Facilities.

H. A156.1 – American National Standard for Materials and Finishes.

I. FIPS 201 – Federal Information Processing Standard #201, Approved Product List (APL)

1.4 REGULATORY AGENCIES

A. Hardware for Doors in Fire Separations and Exit Doors: Conform to ACO (American Certification Organization) accredited by UL (Underwriters Laboratories Incorporated).

B. ADA (Americans with Disabilities Act).

C. GSA (Government Services Administration) – Certified FIPS 201 Compliant locks with CHUID reader through GSA-authorized independent test labs

1.5 SUBMITTALS

A. Section 01300 – Submittals: Submit one (1) sample of each hardware component with each specified finish.

B. Samples:

1. Identify each sample by label indicating applicable manufacturer's brand number, required finish, and hardware package number.

2. Approval samples will be returned for incorporation into the work.

C. Hardware List:

1. Indicate specific hardware; identify make, model, material, function, size, finish, and other pertinent information.

1.6 CLOSEOUT SUBMITTALS

A. Section 01780 – Closeout Submittals: Requirements for operation and maintenance manual.

B. Provide operation and maintenance data for electronic access control for incorporation into manual.

C. Advise maintenance staff regarding proper care, cleaning, and general maintenance.

1.7 QUALITY ASSURANCE

A. Perform Work in accordance with the following requirements:

1. ANSI-BHMA, A156 Series.
2. DHI – A115 Series.
3. NFPA 80.
4. NFPA 101.
5. NFPA 252.
6. NIST (National Institute of Science and Technology) – FIPS 201

B. Hardware Supplier Qualifications: Company specializing in supplying [commercial] [institutional] [_____] door hardware with [_____] years [documented] experience. [approved by manufacturers].

C. Hardware Supplier Personnel: Employ [an Architectural Hardware Consultant (AHC)] [a quail-fied person] to assist in the Work of this section.

1.8 EXTRA MATERIALS

A. Section 01780 – Closeout Submittals: Provide maintenance materials.

1.9 DELIVERY AND STORAGE

A. Section 01600 – Product Requirements: Deliver, store, handle, and protect products.

B. Deliver materials in original package with identification labels intact.

C. Package each item of hardware including fastenings, separately or in like groups of hardware. Label each package as to item definition and location.

D. Store finishing hardware in locked, clean, dry area.

1.10 PROJECT CONDITIONS

A. Section 01300 – Administrative Requirements: Coordination and meetings.

B. Coordinate the Work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door/frame hardware and recessed items.

1.11 WARRANTY

A. Section 01700 – Execution Requirements: Warranties.

B. Manufacturer's Warranty: [three (3)] [_____] year limited warranty that begins once power is applied.

1.12 MAINTENANCE PRODUCTS

A. Section 01700 – Execution Requirements: Operation and maintenance data.

B. Provide special tools applicable to each different or special hardware component.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer: KABA Access Controls

B. Substitutions: Not permitted.

C. Access Control products must be manufactured in the USA

D. Access Control Products must meet BAA (Buy American Act) and NAFTA Guidelines

2.2 STAND-ALONE ELECTRONIC ACCESS CONTROL

Stand-Alone Electronic Access Control for High Security Applications

A. Access Control System:
   1. Access Credentials (2):
      Card only - (PIV compatible or DESFire card)
      Dual Credential – PIN followed by Card
   2. ID Card Enrolling Station: Card Reader/Enroller that supports both (ISO7816-4) Contact Interface and (ISO14443 a/b) Contactless Interface
   3. Manual Lock Programming: 300 users at the reader using keypad in LearnLok™ mode
   4. Software Lock Programming and Auditing Unit: Laptop or Netbook PC with IrDA communications
   5. Number of Users: 300 in LearnLok™ mode; 3000 with software
   6. Audit Trail: 30,000 most recent events, including Key Override use
   7. Authority Levels (6) - Allows control of who has access to specific lock operations:
      Master — Guest Visitor/User
      Manager — Service User
      Access User — Maintenance Unit (PC M-Unit) User
   8. Programmed Scheduling: Up to 16 different access schedules per lock, with up to 32 different holiday / vacation blocks per lock
   9. Passage Mode Options (3):
      First manager or privileged-user in
      Automatic according to access schedules
      Manually toggled on/off at the lock keypad with preset duration from 1-24 hours

B. Locks – General Information:
   1. Style – Contactless CHUID Card Reader and vandal-resistant Keypad with solid-metal pushbuttons, Transparent (Card ID) Readers are not acceptable.
   2. Lockset Electronic: ANSI/BHMA A156.25, Grade 1 Certification
   3. Extra heavy-duty solid cast housings and solid cast levers, wear-tested for extensive use in both indoor and outdoor applications
   4 Mounting: All electronics should be on the unsecured side of the door to prevent cables or wires through the door.
      Batteries and other powering options should be located on the secured side of the door to prevent tampering and use by unauthorized persons.
      All electronics should be on the unsecured side of the door to prevent cables or wires through the door
   5. Standard Lock Finish: Satin Chrome 26D (626) housings & levers
   6. Other Finishes Available: Bright Brass 03 (605), Satin Brass 04 (606), Bright Chrome 026 (625), and Dark Bronze (744-simulates 10B/613) housings and levers with Satin Brass (606) pushbuttons, Black (676) housings with Satin Chrome levers and accents
   7. Items supplied with: Lock Assembly, Installation Manual, Template, Quick Reference Guide, Operations Manual, and required Hardware
      Additional Items supplied with Key-in-Lever Cylinder model ONLY:
         Universal Kaba 1599 6-pin cylinder with tailpiece, four (4) additional tailpieces, and two (2) nickel silver keys
   8. Key Override: Key-in lever cylinders, small format interchangeable cores, large format removable cores; Key Override use is Indicated in audit events log
   9. Authority Levels: Six (6) different Options:
      Master Level - Performs all set-up and programming functions
      Manager Level - Administers common programming functions
      Access User Level - Entry granted with valid credential
      Service Level – PIN or card for single event, or up to 4-day access with no expiry

Guest Level – 365 day durations
Maintenance Level – no access is granted, but information can be uploaded/ downloaded from the lock

10. User Parameters:
    PIN Length – adjustable to accept 4 to 8 digits
    Anti-Tamper Lockout – adjustable from 3 to 9 invalid attempts, with an adjustable period of 3 to 90 seconds
    Re-Lock Time – adjustable from 2 to 20 seconds
11. Power: 3 Power Options:
    a. Standard – 4AA batteries (up to 60,00 cycles)
    b. High Capacity Battery Kit – 4 cells (up to 120,000 cycles)
    c. 12-24 VDC Power Interface from standard off-the-shelf power interface units
12. Certification and Testing
    ANSI-BHMA Certified:

A156.2	Cylindrical Locks	Grade 1
A156.3	Exit Device Locks	Grade 1
A156.13	Mortise Locks	Grade 1
A156.25	Electronic Locks	Grade 1

    ISO Standards:
        14443A-Read-Only FIPS 201 Compliant Credentials, DESFire
        14443B- Read-Only FIPS 201 Compliant Credentials
    US Government Certified:
        GSA APL (Approved Product List) – FIPS 201 CHUID Reader (Contactless)
    Accessibility Standard:
        Americans with Disabilities Act (ADA) Compliant
    Fire Rating: Three (3) hour UL/ULC fire door rating for “A” rated doors
    Environmental: Indoor /Outdoor approved
        Front Housing: -31°F (-35°C) to +151°F (66°C)
        Rear Housing: -31°F (-35°C) to +130°F (55°C)

C. Locks – Cylindrical:
1. Style – Contactless CHUID Card Reader and vandal-resistant Keypad with solid-metal pushbuttons, Transparent (Card ID only) Readers are not acceptable.
2. Locking Device Options:
    Cylindrical ½” (13mm) throw latch with floating face plate and 2¾” (70mm) bkst
    Cylindrical ½” (13mm) throw latch with floating face plate and 23/8” (60mm) bkst
    Cylindrical 3/4” (19mm) throw latch with floating face plate and 2¾” (70mm) bkst
3. Backsets:
    2-3/4” (70mm), 2-3/8”(60mm); 3-3/4” (95mm) and 5” (130mm) extensions available
4. Lockset Cylindrical: ANSI/BHMA A156.2, Grade 1 Certification
5. Extra heavy-duty cylindrical drive wear-tested for extensive use in both indoor and outdoor applications; knobs available if required
6. Key Override: Key-in lever cylinders, small format interchangeable cores, large format removable cores
7. Lock Functions: Cylindrical, Cylindrical with Privacy

D. Locks – Mortise:
1. Style – Contactless CHUID Card Reader and vandal-resistant Keypad with solid-metal pushbuttons, Transparent (Card ID only) Readers are not acceptable.
2. Locking Device Options:
    Mortise ASM, 1 ¼” Face Plate No Deadbolt (Non Handed, Field Reversible)
    Mortise ASM, 1 ¼” Face Plate With Deadbolt (Non Handed, Field Reversible)

3. Backset: 2-3/4" (70mm)
4. Lockset ASM Mortise: ANSI/BHMA A156.13, Grade 1 Certification
5. Extra heavy-duty ASM Mortise wear-tested for extensive use in both indoor and outdoor applications
6. Key Override: Key-in lever cylinders, small format interchangeable cores, large format removable cores
7. Lock Function Customization: Mortise Locks are easily customized on-site via keypad to work as various BHMA lock functions, eliminating the requirement to stock multiple locks to meet different applications. Built-in Options include: Entry, Privacy, and Residence lock (thumbturn required for Privacy and Residence functions)
8. Back to Back Option: Entry/Exit, per BHMA F30 Asylum Function
   Power to both independent housings is supplied by a battery pack behind the mortise faceplate. Separate housings can be programmed alike or as independent openings

E. Locks – Exit Trim:
1. Style – Contactless CHUID Card Reader and vandal-resistant Keypad with solid-metal pushbuttons, Transparent (Card ID only) Readers are not acceptable.
2. Exit Device compatibility: One Lock Model (SKU) must be universally compatible with all of the following Exit Devices:

Arrow S1250	Arrow S3800	Corbin/Russwin 5200/5200A
Detex 10/F10	Dorma 9300/9300F	Monarch 18R/F-18R
Precision 21/FL21	Sargent2828	Sargent 3828
Sargent 8800	Sargent 8888	VonDuprin 22/22F
Von Duprin98/98F	Von Duprin 99 /99F	Yale 7100

3. Backset: Dictated by chosen Exit Device Manufacturer
4. Exit Trim: ANSI/BHMA 156.3, Grade 1 Certification
5. Spring loaded tailpiece interfaces with all specified Exit Devices
6. Key Override: Key-in lever cylinders, small format interchangeable cores, large format removable cores
7. Lock Function: Exit Trim

F. Locks – Standalone Access Controller (SAC):
1. Style – Contactless Card Reader and vandal-resistant Keypad with solid-metal pushbuttons, Transparent (Card ID only) Readers are not acceptable.
2. Locking Device compatibility: Magnetic Locks, Electric Strikes, Parking Gates, Turnstiles, etc.
3. Power Requirement: 12-24 VDC with battery backup (Securitron, Altronics, etc)
4. Tamper-Proof Indicator: Prevents Access if Keypad/Reader is vandalized
5. Alarm Shunt: Normally Open or Normally Closed with field-selectable duration settings
6. Contact Closure: Normally Open or Normally Closed
7. Lock Function: Standalone Access Controller or Keypad/Reader

G. System Software
1. Host Application PC Server with multiple workstations support using Thin Client interface over network (for same machine)
2. SQL database with critical data components encrypted for highest security
3. Validation of credential's digital certificate performed during card enrollment
4. Uses periodic PKI-based validation of enrolled credentials
5. Incorporates "CoreStreet Enabled" FIPS 201 High Assurance at card enrollment and at customer-specified doors
6. Incorporates "CoreStreet Enabled" PKI-based credential validation and verification at card enrollment and at customer-specified daily intervals

2.2 USE OF FASTENERS AND FUNCTIONAL DETAILS

2.2.0 Fasteners supplied and recommended by manufacturer must include one bolt that transfers power from the secured side of the door and compensates for expansion and contraction of both metal and wood doors. Cables or wires through the door are not allowed.

2.2.1 Do not over tighten Kaba Access Control – E-Plex™ 5000 Series Cylindrical Lock: Do not over tighten the LectroBolt™ that transfers power from the secured side of the door.

2.2.1.1 Numeric Keypad: Vandal resistant, 12 button, metal keys with key override. Records [3] [4] [5] [6] [7] [8] [9] attempts.

2.2.1.1.1 Optional Microsoft Windows-based FIPS General software: retrieves audit trail, schedules, holidays, manages 3000 users per door and up to 10,000 doors per site.

2.2.1.2 Lock Housing: Extra heavy-duty solid cast housing, cast stainless steel cylindrical drive components, solid cast zinc lever, 70 mm (2-3/4 inch) backset.

2.2.1.2.1 Function Options:

1 Exit Trim (E.T.)
3 Cylindrical Lock (cyl)
5 Cylindrical with Privacy (cyl)
6 American Steel Mortise (ASM)

2.2.1.2.2 Electronics: Battery with [audible] [visual] indicator for low life.

2.2.1.2.3 Locking Device Options:

Exit Trim, Universal - interfaces with over 15 different exit device models
Cylindrical ½" (13mm) throw latch with floating face plate and 2¾" (70mm) bkst
Cylindrical ½" (13mm) throw latch with floating face plate and 23/8" (60mm) bkst
Cylindrical 3/4" (19mm) throw latch with floating face plate and 2¾" (70mm) bkst
Mortise ESM, LH - 1" (25mm) Face Plate No Deadbolt
Mortise ESM, RH - 1" (25mm) Face Plate No Deadbolt
Mortise ESM, LH - 1" (25mm) Face Plate With Deadbolt
Mortise ESM, RH - 1" (25mm) Face Plate With Deadbolt
Mortise ASM, 1 ¼" Face Plate No Deadbolt (Not Handed)
Mortise ASM, 1 ¼" Face Plate With Deadbolt (Not Handed)

[3-hour] [__] UL/ULC Fire Door Rating.

2.2.1.2.4 Optional Features:

Remote Unlock
12-24 VDC Power Interface Kit
High Capacity Battery Kit

2.2.1.2.5 Strike: ASA and standard strike plate.

2.2.1.2.6 Door Thickness: 1-3/8 inch (35 mm) to 2-1/4 inch (57 mm) [_____] (specify)

2.2.1.2.7 Door handing: Non-handed, Field Reversible

2.2.1.2.8 Weight: 3.63 kg (8 lbs).

2.2.1.3 Finished to ANSI/BHMA standard for Materials and Finishes:

2.2.1.4 Finish Options:
605 Bright Brass (03) – PVD finish
606 Satin Brass (04) – PVD finish
625 Bright Chrome (026)
626 Satin Chrome (26D)
676 Black (19) (with Satin Chrome Accents)
744 Dark Bronze with Brass accents (simulated 10B/613)

2.3 ACCESSORIES

2.3.0 Fasteners: Must include at least one bolt that transfers power from the secured side of the door and compensates for expansion and contraction of both metal and wood doors by maintaining the fastener in constant tension from both sides of the door.

2.3.0.1 Screws, bolts, expansion shields and other fastening devices required for installation and smooth operation of hardware.

2.3.0.2 Exposed fastening devices to be compatible with hardware finish.

2.3.1 Key Override Function Options:
K-I-L Kaba Cylinder (Kaba 90 Keyway) Included (XK)
K-I-L Kaba Cylinder (Schlage C Keyway) Included (XS)
I/C Best & Equivalents (6 or 7 Pin Length) , Cylinder Not Included (B)
R/C Corbin/Russwin , Cylinder Not Included (C)
R/C Medeco/ASSA/Yale, Cylinder Not Included (M)
R/C Sargent, Cylinder Not Included (R)
R/C Schlage, Cylinder Not Included (S)

2.3.1.1 [Standard key-in-lever cylinder.] [Removable core cylinder.]

2.3.1.2 Compatible with cylinders from Manufacturer: [ASSA,] [Abloy,] [Corbin/Russwin,] [Medeco,] [Sargent,] [Schlage,] [Schlage Primus,] [Arrow,] [Australian,] [Kaba,] [Marks].

2.3.1.3 Interchangeable cores: small format Best and compatibles (6 or 7 pin length).

2.3.1.4 Removable cores: [ASSA,] [Corbin/Russwin,] [Medeco,] [Schlage,] [Yale].

2.3.1.5 Key override use indicated in audit events log

2.3.2 Type and Finish: Same surface finish with compatible material as substrate.

2.4 FABRICATION

2.4.0 Fabricate keyless lock with clutch free, direct-drive design.

2.4.1 Provide both Levers or Knobs:
Options: Winston Lever (WL)
Winston Knob (available with Cylindrical only) (WK)

PART 3 EXECUTION

3.1 EXAMINATION

3.1.0 Section 01700 – Execution Requirements: Verification of existing conditions before starting work.

3.1.1 Verify that doors and frames are ready to receive work and dimensions are as [indicated on shop drawings.] [instructed by the manufacturer.]

3.1.2 Installation of Fasteners.

3.2 INSTALLATION

3.2.0 Provide wood or metal door and frame manufacturers with instructions and templates for preparation of the work to receive hardware.

3.2.1 Provide hardware manufacturers' instructions for installation of hardware components.

3.2.2 Use fasteners recommended by manufacturer.

3.2.3 Do not over tighten fasteners.

3.3 FIELD QUALITY CONTROL

3.3.0 Section 01400 – Quality Requirements: Field inspection, testing, and adjusting.

3.3.1 Architectural Hardware Consultant will inspect installation and certify that hardware and installation has been provided and installed in accordance with manufacturer's instructions [and as specified].

3.4 ADJUSTING

3.4.0 Section 01700: Adjusting installed work.

3.4.1 Adjust hardware for smooth operation.

3.5 PROTECTION OF FINISHED WORK

3.5.0 Section 01700: Protecting installed work.

3.5.1 Do not permit adjacent work to damage hardware or finish.

3.6 SCHEDULE

3.7 PROTECTION

3.7.1 Section 01700: Protecting installed work.

3.7.2 Do not permit adjacent work to damage hardware or finish.

END OF SECTION