

SECTION 087153
SECURITY DOOR HARDWARE - ABLOY USA

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Security cylinders.
- B. Security handle-controlled electronic mortise locks.
- C. Security deadbolt locks.
- D. Padlocks.

1.02 RELATED REQUIREMENTS

- A. Section 080671 - Door Hardware Schedule: Schedule of door hardware sets.
- B. Section 087100 - Door Hardware.
- C. Section [_____]: Power supply to electric hardware devices.
- D. Section 281000 - Access Control: Electronic access control devices.

1.03 PRICE AND PAYMENT PROCEDURES

- A. Allowances: See Section 012100 - Allowances, for cash allowances affecting this section.

1.04 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.
- B. BHMA (CPD) - Certified Products Directory Current Edition.
- C. BHMA A156.5 - American National Standard for Cylinders and Input Devices for Locks 2014.
- D. BHMA A156.13 - American National Standard for Mortise Locks & Latches Series 1000 2017.
- E. BHMA A156.16 - American National Standard for Auxiliary Hardware 2018.
- F. BHMA A156.18 - American National Standard for Materials and Finishes 2016.
- G. BHMA A156.30 - American National Standard for High Security Cylinders 2014.
- H. BHMA A156.36 - American National Standard for Auxiliary Locks 2016.
- I. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.
- J. ITS (DIR) - Directory of Listed Products current edition.
- K. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- L. NFPA 80 - Standard for Fire Doors and Other Opening Protectives 2019.
- M. NFPA 101 - Life Safety Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- N. NFPA 105 - Standard for Smoke Door Assemblies and Other Opening Protectives 2019.
- O. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies 2017.
- P. UL (DIR) - Online Certifications Directory Current Edition.
- Q. UL 10B - Standard for Fire Tests of Door Assemblies Current Edition, Including All Revisions.
- R. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies Current Edition, Including All Revisions.
- S. UL 437 - Standard for Key Locks Current Edition, Including All Revisions.
- T. UL 1034 - Standard for Burglary-Resistant Electric Locking Mechanisms 2015.
- U. UL 1784 - Standard for Air Leakage Tests of Door Assemblies Current Edition, Including All Revisions.

1.05 ADMINISTRATIVE REQUIREMENTS

- A. See Section 087100 for related information.

1.06 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.
- C. Shop Drawings - Door Hardware Schedule: See Section 080671.
- D. Shop Drawings - Electrified Door Hardware: See Section 087100.

- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- F. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
 - 1. Submit manufacturer's parts lists and templates.
 - 2. Bitting List: List of combinations as furnished.
- G. Keying Schedule: See Section 087100.
- H. Manufacturer's Qualification Statement.
- I. Installer's Qualification Statement.
- J. Supplier's Qualification Statement.
- K. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- L. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Lock Cylinders: Ten for each master keyed group.
 - 3. Tools: One set of each special wrench or tool applicable for each different or special hardware component, whether supplied by hardware component manufacturer or not.

1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified for commercial door hardware with at least three years of documented experience.
- C. Supplier Qualifications: Company with certified Architectural Hardware Consultant (AHC) and Electrified Hardware Consultant (EHC) to assist in work of this section.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match door hardware schedule.

1.09 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Warranty against defects in material and workmanship for period indicated, from Date of Substantial Completion.
 - 1. Locksets and Cylinders: Three years, minimum.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Abloy USA; [____]: www.abloy.com/en-us/#sle.
 - 1. Address: 6005 Commerce Drive, #330, Irving, TX 75063.
 - 2. Contact: Mark Scharff, Vertical Market Manager A&E.
 - a. Phone: (469) 265-5732.
 - b. Phone, Toll Free: (800) 367-4598.
 - c. Email: mark.scharff@assaabloy.com.
 - 3. Substitutions: Not permitted.

2.02 PERFORMANCE REQUIREMENTS

- A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
- B. Provide individual items of single type, of same model, and by same manufacturer.
- C. Provide door hardware products that comply with following requirements:
 - 1. Applicable provisions of federal, state and local codes.
 - 2. Accessibility: ADA Standards and ICC A117.1.
 - 3. Applicable provisions of NFPA 101.
 - 4. Fire-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.

5. Hardware on Fire-Rated Doors: Listed and classified by UL (DIR), ITS (DIR), testing firm acceptable to authorities having jurisdiction or [] as suitable for application indicated.
 6. Hardware for Smoke and Draft Control Doors (Indicated as "S" on Drawings): Provide door hardware that complies with local codes, and requirements of assemblies tested in accordance with UL 1784.
 7. Listed and certified compliant with specified standards by BHMA (CPD).
 8. Auxiliary Hardware: BHMA A156.16.
 9. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for purpose specified.
- D. Electrically Operated or Controlled Hardware: Provide necessary power supplies, power transfer hinges, relays, and interfaces as required for proper operation; provide wiring between hardware and control components and to building power connection in compliance with NFPA 70.
1. See Section 281000 for additional access control system requirements.
- E. Lock Function: Provide lock and latch function numbers and descriptions of manufacturer's series. See Section 08 0671 for listing of hardware sets.
- F. Fasteners: See Section 087100.
- 2.03 SECURITY CYLINDERS**
- A. Rim and Mortise Lock Cylinder Manufacturers:
1. Abloy USA; CY402T Mortise Lock Cylinder, with dust cover: www.abloy.com/en-us/#sle.
 2. Abloy USA; CY403T Rim Lock Cylinder, with dust cover: www.abloy.com/en-us/#sle.
 3. Abloy USA; CY415T Rim Lock Cylinder, with dust cover: www.abloy.com/en-us/#sle.
 4. [].
 5. Substitutions: Not permitted.
- B. Interchangeable Core Cylinder Manufacturers:
1. Abloy USA; CYL416T for Yale Brand Locks: www.abloy.com/en-us/#sle.
 2. Abloy USA; CYL419T for Schlage Brand Locks: www.abloy.com/en-us/#sle.
 3. [].
 4. Substitutions: Not permitted.
- C. Knob Type Cylinder Manufacturers:
1. Abloy USA; CY406T for Schlage Brand Locks, with dust cover: www.abloy.com/en-us/#slee.
 2. Abloy USA; CY407T for Sargent 10 Line Locks, with dust cover: www.abloy.com/en-us/#sle.
 3. Abloy USA; CY408T for Corbin Russwin Locks, with dust cover: www.abloy.com/en-us/#sle.
 4. Abloy USA; CY410T for Schlage Deadbolt Locks, with dust cover: www.abloy.com/en-us/#sle.
 5. [].
 6. Substitutions: Not permitted.
- D. Key Manufacturer:
1. ABLOY USA; Abloy Protect2 Key, Electromechanical (T): www.abloy.com/en-us/#sle.
 2. [].
 3. Substitutions: Not permitted.
- E. Lock Cylinders: Provide key access on outside of each lock, unless otherwise indicated.
1. Provide standard, electronic, conventional, full size interchangeable core (FSIC) and [] type cylinders, Grade 1, with eleven-disc core in compliance with BHMA A156.5, at locations indicated.
 2. Provide high-security mechanical type cylinders, Grade 1, with eleven-disc core in compliance with BHMA A156.30 or UL 437 at locations indicated.
 3. Provide cylinders from same manufacturer as locking device.
 4. Provide cams or tailpieces as required for locking devices.

5. Within specific door sections, when provisions for lock cylinders are referenced to this section, provide specified lock cylinder, keyed to building keying system, unless otherwise indicated.
6. Rim or Mortise Lock Cylinders: 1-1/8 inches (28.6 mm) long, with case-hardened steel housing and brass cylinder plug.
7. Knob Type Cylinders: Provide with tailpiece, brass cylinder housing and drum, and tin bronze discs and washers.
8. Finish: As indicated on drawings.

2.04 SECURITY HANDLE-CONTROLLED ELECTRONIC MORTISE LOCKS

- A. Manufacturers:
 1. Abloy USA; Electric Lock EL570: www.abloy.com/en-us/#sle.
 2. [_____].
 3. Substitutions: Not permitted.
- B. Mortise Lock Cylinder Manufacturer:
 1. Abloy USA; CY402T Protec2 Electromechanical, with dust cover: www.abloy.com/en-us/#sle.
 2. [_____].
 3. Substitutions: Not permitted.
- C. Mortise Electronic Locks: Comply with BHMA A156.13, Grade 1 - Security, with burglary-resistant rating in accordance with UL 1034, and UL (DIR) listed having up to 3-hour fire rating in accordance with UL 10B and positive pressure tested for fire doors in accordance with UL 10C.
 1. Application: Handle-controlled high-security lock used where handle-controlled unlocking is combined with mechanical security requirements; integrated monitoring contacts from lock may be connected to different systems.
 2. Latchbolt Throw: 3/4 inch (19 mm), minimum, double-action latch.
 3. Deadbolt Throw: 1 inch (25.4 mm), minimum.
 4. Backset: 2-3/4 inches (70 mm) unless otherwise indicated.
 5. Weight: 3.06 pounds (1.39 kg).
 6. Strikes: Provide manufacturer's standard strike for each latchset or lockset with strike box and curved latch extending to protect frame in compliance with indicated requirements.
 - a. Finish: To match lock or latch.
 7. Monitoring Functions: Door closed, Dead bolt and latch dead locked and Handle indication, inside and outside handle.
 8. Input Operating Voltage: 12 to 24 volts DC.

2.05 SECURITY DEADBOLT LOCKS

- A. Manufacturers:
 1. Abloy USA; Security Tubular Deadbolt - ME151T with Double Cylinder - CY411T and Standard Bolt - LC801: www.abloy.com/en-us/#sle.
 2. Abloy USA; Security Tubular Deadbolt - ME153T with Single Cylinder with Thumbturn - CY412T and Standard Bolt - LC801: www.abloy.com/en-us/#sle.
 3. Abloy USA; Security Tubular Deadbolt - ME155T with Single Cylinder with Key Lockable Thumbturn - CY413T and Standard Bolt - LC801: www.abloy.com/en-us/#sle.
 4. [_____].
 5. Substitutions: Not permitted.
- B. Mortise Lock Cylinder Manufacturer:
 1. Abloy USA; CY402T Protec2 Electromechanical: www.abloy.com/en-us/#sle.
 2. [_____].
 3. Substitutions: Not permitted.
- C. Key Manufacturer:
 1. ABLOY USA; Abloy Protect2 Key, Electromechanical (T): www.abloy.com/en-us/#sle.
 2. [_____].

- D. Auxiliary Locks (Deadbolts): Comply with BHMA A156.36, Grade 1.

2.06 **FINISHES**

PART 3 EXECUTION

3.01 **INSTALLATION**

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Install hardware on fire-rated doors and frames in accordance with applicable codes and NFPA 80.
- C. Install hardware for smoke and draft control doors in accordance with NFPA 105.
- D. Use templates provided by hardware item manufacturer.
- E. Door Hardware Mounting Heights: See Section 087100.

END OF SECTION