

## SECTION 087100 - DOOR HARDWARE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Sliding doors.
  - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Electromechanical door hardware.
  - 3. Automatic operators.
  - 4. Cylinders specified for doors in other sections.
- C. Related Sections:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
  - 2. Division 08 Section "Flush Wood Doors".
  - 3. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
  - 4. Division 08 Section "Automatic Door Operators".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
  - 2. FEMA P-361 2015/2021 - Design and Construction Guidance for Community Safe Rooms.
  - 3. ICC 500-2014/2020, ICC/NSSA Standard for the Design and Construction of Storm Shelters.
  - 4. ICC/IBC - International Building Code.
  - 5. NFPA 70 - National Electrical Code.
  - 6. NFPA 80 - Fire Doors and Windows.
  - 7. NFPA 101 - Life Safety Code.
  - 8. NFPA 105 - Installation of Smoke Door Assemblies.
  - 9. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.

10. State Building Codes, Local Amendments.

- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
    - h. Warranty information for each product.
  4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
    - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    - b. Complete (risers, point-to-point) access control system block wiring diagrams.
    - c. Wiring instructions for each electronic component scheduled herein.
  2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.
- B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
  - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
  - 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
  - 1. Function of building, purpose of each area and degree of security required.
  - 2. Plans for existing and future key system expansion.
  - 3. Requirements for key control storage and software.
  - 4. Installation of permanent keys, cylinder cores and software.
  - 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
  - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
  - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
  - 3. Review sequence of operation narratives for each unique access controlled opening.
  - 4. Review and finalize construction schedule and verify availability of materials.
  - 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 4. Electrical component defects and failures within the systems operation.
- C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 BUTT HINGES

- A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:
  - a. Two Hinges: For doors with heights up to 60 inches.
  - b. Three Hinges: For doors with heights 61 to 90 inches.
  - c. Four Hinges: For doors with heights 91 to 120 inches.
  - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
  - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
  - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
  - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
  - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
  - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
5. Manufacturers:
  - a. McKinney (MK) - TA/T4A Series, 5-knuckle.

### 2.2 CONTINUOUS HINGES

- A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:
  - a. Pemko (PE).

- B. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed stainless pin, and twin self-lubricated nylon bearings at each knuckle separation. Factory trim hinges to suit door height and prepare for electrical cut-outs.

- 1. Manufacturers:

- a. Markar Products; ASSA ABLOY Architectural Door Accessories (MR).
  - b. Pemko (PE).

## 2.3 POWER TRANSFER DEVICES

- A. Electrified Quick Connect Transfer Hinges: Provide electrified transfer hinges with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets with a 1-year warranty. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

- 1. Manufacturers:

- a. McKinney (MK) - QC (# wires) Option.

- B. Electrified Quick Connect Stainless Steel Continuous Transfer Hinges: Provide electrified transfer stainless steel continuous hinges with electrical transfer access prep accessible without de-mounting door from the frame. Furnish with Molex™ standardized plug connectors with sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

- 1. Manufacturers:

- a. Markar Products; ASSA ABLOY Architectural Door Accessories (MR) - MP-ETAP-EL (# wires) Option.

- C. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

- 1. Manufacturers:

- a. Pemko (PE) - EL-CEPT Series.
  - b. Securitron (SU) - EL-CEPT Series.

- D. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-

door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:
  - a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
  - b. McKinney (MK) - Connector Hand Tool: QC-R003.
2. Manufacturers:
  - a. McKinney (MK) - QC-C Series.

## 2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.
  1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
  2. Furnish dust proof strikes for bottom bolts.
  3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
  4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
  5. Manufacturers:
    - a. Rockwood (RO).
- B. Coordinators: ANSI/BHMA A156.3 door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
  1. Manufacturers:
    - a. Rockwood (RO).
- C. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
  1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
  2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.



3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10" clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
6. Manufacturers:
  - a. Rockwood (RO).

## 2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer's United States patents.
  1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
  2. Manufacturers:
    - a. Corbin Russwin (RU) - Access 3 AP.
    - b. Sargent (SA) - Degree DG1.
- C. Keying System: Each type of lock and cylinders to be factory keyed.
  1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
  2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
  3. New System: Key locks to a new key system as directed by the Owner.
- D. Key Quantity: Provide the following minimum number of keys:
  1. Change Keys per Cylinder: Two (2)
  2. Master Keys (per Master Key Level/Group): Five (5).
  3. Construction Keys (where required): Ten (10).
- E. Construction Keying: Provide construction master keyed cylinders.
- F. Key Registration List (Bitting List):
  1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.

2. Provide transcript list in writing or electronic file as directed by the Owner.

## 2.6 KEY CONTROL

- A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:
  - a. Lund Equipment (LU).
  - b. MMF Industries (MM).
  - c. Telkee (TK).

## 2.7 MORTISE LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

1. Manufacturers:
  - a. Corbin Russwin Hardware (RU) - ML2000 Series.
  - b. Sargent Manufacturing (SA) - 8200 Series.

## 2.8 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

- B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

## 2.9 CONVENTIONAL EXIT DEVICES

### A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
  - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
  - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

### B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.

1. Electromechanical exit devices shall have the following functions and features:
  - a. Universal Molex plug-in connectors that have standardized color-coded wiring and are field configurable in fail safe or fail secure and operate from 12vdc to 24vdc regulated.
  - b. EcoFlex or equivalent technology that reduces energy consumption up to 92% as certified by GreenCircle.
  - c. Options to be available for request-to-exit or enter signaling, latchbolt and touchbar monitoring.

- d. Field configurable electrified trim to fail-safe or fail-secure that operates from 12-24VDC.
  - e. Five-year limited warranty for electromechanical features.
2. Manufacturers:
- a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
  - b. Sargent Manufacturing (SA) - 80 Series.
- C. Multi-Point Exit Devices (Storm Shelter Openings): Multi-point exit devices specifically engineered for out-swinging door applications on tornado or hurricane resistant storm shelter openings. Extra heavy duty steel component construction with each of the latching points automatically activated when the device is locked. The multi-point exit device is approved for usage as part of a complete ICC 500 (2014/2020) and FEMA P-361 (2015/2021) door, frame and hardware assembly.
1. Manufacturers:
- a. Corbin Russwin Hardware (RU) - FE5400S Series.
  - b. Sargent Manufacturing (SA) - FM8700 Series.

## 2.10 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
- 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
  - 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
  - 3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
  - 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
  - 5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
  - 6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.

1. Manufacturers:

- a. Corbin Russwin Hardware (RU) - DC8000 Series.
- b. Norton Rixson (NO) - 9500 Series.
- c. Sargent Manufacturing (SA) - 281 Series.

- C. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard..

1. Manufacturers:

- a. Corbin Russwin Hardware (RU) - DC6000 Series.
- b. Norton Rixson (NO) - 7500 Series.
- c. Sargent Manufacturing (SA) - 351 Series.

- D. Door Closers, Surface Mounted (Cam Action): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, high efficiency door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be of the cam and roller design, one piece cast aluminum silicon alloy body with adjustable backcheck and independently controlled valves for closing sweep and latch speed.

1. Manufacturers:

- a. Corbin Russwin (RU) - DC5000 Series.
- b. Norton Rixson (NO) - 2800ST Series.
- c. Sargent Manufacturing (SA) - 422 Series.

## 2.11 ARCHITECTURAL TRIM

### A. Door Protective Trim

- 1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
- 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
- 3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
- 4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

- a. Stainless Steel: 300 grade, 050-inch thick.
- 5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
- 6. Manufacturers:
  - a. Rockwood (RO).

## 2.12 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
  - 1. Manufacturers:
    - a. Rockwood (RO).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
  - 1. Manufacturers:
    - a. Norton Rixson (RF).
    - b. Rockwood (RO).
    - c. Sargent Manufacturing (SA).

## 2.13 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. Pemko (PE).

## 2.14 ELECTRONIC ACCESSORIES

- A. Push-Button Switches: Industrial grade momentary or alternate contact, back-lighted push buttons with stainless-steel switch enclosures. 12/24 VDC bi-color illumination suitable for either flush or surface mounting.
  - 1. Manufacturers:
    - a. Alarm Controls (AK) - TS Series.
    - b. Securitron (SU) - PB Series.
- B. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
  - 1. Manufacturers:
    - a. Securitron (SU) - DPS Series.
- C. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.

1. Manufacturers:
  - a. Securitron (SU) - AQL Series.

## 2.15 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

## 2.16 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

### 3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

### 3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.



1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
  1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
  2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
  3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
  1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

### 3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to

operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

### 3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

### 3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

### 3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
  - 1. Quantities listed are for each pair of doors, or for each single door.
  - 2. The supplier is responsible for handing and sizing all products.
  - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
- B. Manufacturer's Abbreviations:
  - 1. MK - McKinney
  - 2. MR - Markar
  - 3. PE - Pemko
  - 4. SU - Securitron
  - 5. RO - Rockwood
  - 6. SA - SARGENT
  - 7. RF - Rixson
  - 8. NO - Norton
  - 9. LU - Lund Equipment Co

**Hardware Sets****Set: 1.0**

Doors: 039A, 042B, 135, 200B, 200C, 201B, FENCE GATE 1, FENCE GATE 2, FENCE GATE 3, FENCE GATE 4, FENCE GATE 5

Description: OH / STORM SHUTTER / TRASH

1 Padlock	DG1 758	SA 087100
1 Hardware By Others	Hardware By Door Supplier	

Notes: PADLOCK @ FENCE GATES

**Set: 2.0**

Doors: 001, 002

Description: ALD SLIDING


1 Hardware By Others	Hardware By Door Supplier
----------------------	---------------------------

Notes: CARD READER REQUIRED AT 001.

**Set: 3.0**

Doors: 018A, 155C, ST-1A

Description: FEMA ICC500 EXTERIOR EXIT DEVICE EO CPS CLOSER

1 Continuous Hinge	HG305 x Door Height	630	MR	087100
1 Multipoint Exit Device, Exit Only	12 FM8710 EO	US32D	SA	087100
1 Door Closer	TB 281 CPS	EN	SA	087100
1 Door Stop	462	US2C	RO	087100
1 Gasketing	S773D (Head & Jambs)		PE	087100
1 Rain Guard	346C x Overall Frame width		PE	087100
1 Sweep	345ANB x Door Width		PE	087100
1 Threshold	1715A x Opening Width		PE	087100
1 Position Switch	DPS-M-BK	SU	087100	

Notes: CUTOUT THRESHOLD SO BOTTOM STRIKE CAN BE MOUNTED TO CONCRETE FLOOR AND NOT ON THE THRESHOLD. DOOR WILL HAVE A 5/8" UNDERCUT.

**Set: 4.0**

Doors: 005

Description: FEMA ICC500 EXTERIOR MP EXIT W/ELEC TRIM CPS CLOSER

1 Continuous Hinge	HG305 EL4 x Door Height	630	MR	087100	⚡
1 Fail Secure Exit Device	DG1 12 FM8774-24v ETMB 306 AUX	US32D	SA	087100	⚡
1 Door Closer	TB 281 CPS	EN	SA	087100	
1 Latch Cover Kick Plate	BFLG1050 10" 2" LDW	US32D	RO	087100	
1 Door Stop	462	US2C	RO	087100	
1 Gasketing	S773D (Head & Jambs)		PE	087100	
1 Rain Guard	346C x Overall Frame width		PE	087100	
1 Sweep	345ANB x Door Width		PE	087100	
1 Threshold	1715A x Opening Width		PE	087100	
1 ElectroLynx Harness	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness	QC-C Length Required		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS-M-BK		SU	087100	⚡
1 Motion Sensor	XMS		SU	087100	⚡
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

CUTOUT THRESHOLD SO BOTTOM STRIKE CAN BE MOUNTED TO CONCRETE FLOOR AND NOT ON THE THRESHOLD. DOOR WILL HAVE A 5/8" UNDERCUT.

**Set: 5.0**

Doors: 018B

Description: FEMA ICC500 EXTERIOR EXIT DEVICE PR CLOSER

1 Continuous Hinge	HG305 x Door Height	630	MR	087100	
1 Multipoint Exit Device	DG1 12 FM8706 ETMB	US32D	SA	087100	
1 Surface Closer	SRI TB 281 P10	EN	SA	087100	
1 Door Stop	462	US2C	RO	087100	
1 Gasketing	S773D (Head & Jambs)		PE	087100	

1 Threshold	1715A x Opening Width	PE	087100	
1 Position Switch	DPS-M-BK	SU	087100	⚡

Notes: CUTOUT THRESHOLD SO BOTTOM STRIKE CAN BE MOUNTED TO CONCRETE FLOOR AND NOT ON THE THRESHOLD. DOOR WILL HAVE A 5/8" UNDERCUT.

### Set: 6.0

Doors: 043A, 049B

Description: EXTERIOR ALD CARD READER EXIT ELR X PULL X CPS CLOSER

1 Continuous Hinge	CFMSLF-HD1 PT	PE	087100	
1 Electric Power Transfer	EL-CEPT	630	SU	087100 ⚡
1 Rim Exit Device, Storeroom	DG1 55 AD8504 x Pull (see below)	US32D	SA	087100 ⚡
1 Cylinder Rim/Mortise	type as req'd for hardware item, match existing key system			
1 Door Pull, offset	RM3310-24 Mtg-Type 12XHD	US32D	RO	087100
1 Door Closer	CPS7500	689	NO	087100
1 Drop Plate	7788	689	NO	087100
1 Blade Stop	6891	689	NO	087100
1 Set Weatherstrip	by Door Manufacturer			
1 Sweep	3452AV	PE	087100	
1 Threshold	2005AT	PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500	MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)	MK	087100	⚡
1 Position Switch	DPS	SU	087100	⚡
1 Card Reader	provided by owner	HID		
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)	SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

### Set: 7.0

Doors: 100A

Description: EXTERIOR ALD RIM EXIT MELR X PULL OH STOP AUTO OPERATOR

1 Continuous Hinge	CFMSLF-HD1 PT	PE	087100	
1 Electric Power Transfer	EL-CEPT	630	SU	087100 ⚡

1 Rim Exit Device, Storeroom	DG1 55 56 AD8504 x Pull (see below)	US32D	SA	087100	⚡
1 Door Pull, offset	RM3310-24 Mtg-Type 12XHD	US32D	RO	087100	
1 Conc Overhead Stop	1-336	630	RF	087100	
1 Automatic Opener	6061 D	689	NO	087100	⚡
1 Set Weatherstrip	by Door Manufacturer				
1 Sweep	3452AV		PE	087100	
1 Threshold	254x226AFGT		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Wall Switch, wave mullion mount	704		NO	087100	⚡
1 Door Switch, mullion mount	503		NO	087100	⚡
1 Card Reader	provided by owner		HID		
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. PROGRAM ACTUATOR SWITCHES AS DIRECTED BY SECURITY FOR ACCESS CONTROL TIMES OR BY CARD READER ACTIVATION. ALWAYS FREE EGRESS.

### Set: 8.0

Doors: 042C

Description: EXTERIOR HMD CARD READER LOCK CPS CLOSER

2 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP 4-1/2" x 4-1/2"	US32D	MK	087100	
1 Hinge, Full Mortise, Hvy Wt	T4A3386 QC12 4-1/2" x 4-1/2"	US32D	MK	087100	⚡
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D	SA	087100	⚡
1 Door Closer	CPS7500	689	NO	087100	
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100	
1 Rain Guard	346C x Overall Frame width		PE	087100	
1 Gasketing	2891AS		PE	087100	
1 Sweep	3452AV		PE	087100	
1 Threshold	254x226AFGT		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door		MK	087100	⚡

1 Card Reader	width/hardware) Wall Mounted Reader by access control provider	HID	
1 Position Switch	DPS	SU 087100	⚡
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)	SU 087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

### Set: 8.1

Doors: TR-01

Description: EXTERIOR HMD STOREROOM LOCK CPS CLOSER

3 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP 4-1/2" x 4-1/2"	US32D	MK 087100
1 Storeroom/Closet Lock	3 CPC DG1 8204 LNMB	US32D	SA 087100
1 Surface Closer	SRI TB 281 CPS	EN	SA 087100
3 Silencer	608		RO 087100

Notes: EXTERIOR EXPOSED.

### Set: 8.2 ALT 2

Doors: 200A, 201A

Description: EXTERIOR HMD INSWING CARD READER LOCK CLOSER

2 Hinge, Full Mortise, Hvy Wt	T4A3386 4-1/2" x 4-1/2"	US32D	MK 087100	
1 Hinge, Full Mortise, Hvy Wt	T4A3386 QC12 4-1/2" x 4-1/2"	US32D	MK 087100	⚡
1 Fail Secure Lock	DG1 RX 8271-24V LNMB	US32D	SA 087100	⚡
1 Surface Closer	7500	689	NO 087100	
1 Wall Stop	RM861	US32D	RO 087100	
1 Gasketing	S88D		PE 087100	
1 Door Bottom	209AV		PE 087100	
1 Door Bottom	412CPKL		PE 087100	
1 Threshold	2005AT		PE 087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK 087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK 087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID	

1 Position Switch	DPS	SU 087100	⚡
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)	SU 087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

### Set: 9.0

Doors: 109B

Description: CARD READER LOCK PR CLOSER GASKET

2 Hinge, Full Mortise, Hvy Wt	T4A3786 NRP 4-1/2" x 4-1/2"	US26D MK 087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D MK 087100	⚡
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D SA 087100	⚡
1 Cylinder Rim/Mortise	type as req'd for hardware item, match existing key system		
1 Door Closer	PR7500	689 NO 087100	
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D RO 087100	
1 Wall Stop	RM861	US32D RO 087100	
1 Gasketing	S88D	PE 087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500	MK 087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)	MK 087100	⚡
1 Position Switch	DPS	SU 087100	⚡
1 Card Reader	provided by owner	HID	
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)	SU 087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

### Set: 10.0

Doors: 007B, 008B, 011, 015B, 016B, 017A, 017B, 041, 107, 138B, 140A, 146, 148, 151

Description: CARD READER LOCK CLOSER GASKET

2 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D MK 087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D MK 087100	⚡
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D SA 087100	⚡



1 Surface Closer	7500	689	NO	087100	
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100	
1 Wall Stop	RM861	US32D	RO	087100	
1 Gasketing	S88D		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Card Reader	provided by owner		HID		
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

146 NEEDS FM200 CONFIRM GASKETING WITH DOOR SUPPLIER.

### Set: 11.0

Doors: 101, ~~138~~

Description: ALD CARD READER LOCK CPS CLOSER WIDE STILE REQUIRED\*\*\*

2 Hinge, Full Mortise, Hvy Wt	T4A3786 NRP 4-1/2" x 4-1/2"	US26D	MK	087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D	MK	087100	⚡
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D	SA	087100	⚡
1 Door Closer	CPS7500	689	NO	087100	
1 Drop Plate	7788	689	NO	087100	
1 Blade Stop	6891	689	NO	087100	
1 Set Weatherstrip	by Door Manufacturer				
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Card Reader	provided by owner		HID		
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

**Set: 12.0**

Doors: 109A

Description: ALD CARD READER LOCK CPS CLOSER WIDE STILE REQUIRED\*\*\* REMOTE RELEASE

1 Continuous Hinge	CFMSLF-HD1 PT		PE	087100	
1 Electric Power Transfer	EL-CEPT	630	SU	087100	⚡
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D	SA	087100	⚡
1 Door Closer	CPS7500	689	NO	087100	
1 Drop Plate	7788	689	NO	087100	
1 Blade Stop	6891	689	NO	087100	
1 Set Weatherstrip	by Door Manufacturer				
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Card Reader	provided by owner		HID		
1 Pushbutton	PB3ER		SU	087100	⚡
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS. REMOTE RELEASE FROM RECEPTION.

LEVEL III BULLET RESISTANT DOOR AND GLASS REQUIRED.

**Set: 13.0**

Doors: 105B

Description: ALD CARD READER LOCK CLOSER GASKET WIDE STILE REQUIRED\*\*\*

2 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D	MK	087100	⚡

1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D	SA	087100	⚡
1 Surface Closer	7500	689	NO	087100	
1 Drop Plate	7788	689	NO	087100	
1 Wall Stop	RM861	US32D	RO	087100	
1 Gasketing	S88D		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Card Reader	provided by owner		HID		
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

#### Set: 14.0

Doors: 152A

Description: CARD READER LOCK CLOSER OH STOP GASKET

2 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D	MK	087100	⚡
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US32D	SA	087100	⚡
1 Conc Overhead Stop	1-336	630	RF	087100	
1 Surface Closer	7500	689	NO	087100	
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100	
1 Gasketing	S88D		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Card Reader	provided by owner		HID		
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

**Set: 15.0**

Doors: 045

Description: PAIR CARD READER LOCK CLOSER OH STOP SELF LATCHING FB

5 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D	MK	087100	⚡
1 Flush Bolt	2905/2805 per dr mtrl self latch top only	US26D	RO	087100	
1 Fail Safe Lock	DG1 RX 8270-24V LNMB	US26D	SA	087100	⚡
1 Coordinator	2600	Black	RO	087100	
1 Mounting Bracket	2601 Mounting Brackets	Black	RO	087100	
2 Conc Overhead Stop	1-336	630	RF	087100	
2 Surface Closer	7500	689	NO	087100	
2 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100	
2 Silencer	608		RO	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
2 Position Switch	DPS		SU	087100	⚡
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

**Set: 16.0**

Doors: ST-1C

Description: RIM EXIT ELEC TRIM FAIL SAFE CLOSER GASKET

2 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100	
1 Hinge (heavy weight)	T4A3786 QC12 4-1/2" x 4-1/2"	US26D	MK	087100	⚡

1 Fail Safe Exit Device	DG1 12 55 8875-24v ETMB	US32D	SA	087100	⚡
1 Surface Closer	2800ST	689	NO	087100	
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100	
1 Wall Stop	RM861	US32D	RO	087100	
1 Gasketing	S88D		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
1 Position Switch	DPS		SU	087100	⚡
1 Power Supply	AQD or Centralized Power Source (coordinate w/GC)		SU	087100	⚡

Notes: ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

**Set: 17.0**

Doors: 007A, 008A, 015A, 016A, 019, 022, 023, 106, 110, 111, 112, 113, 114, 115, 116, 121, 124, 125, 126, 127, 128, 129, 141, 142, 143, 144, 145

Description: OFFICE LOCK NO CLOSER GASKET

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100	
1 Office/Entry Lock	DG1 8205 LNMB	US26D	SA	087100	
1 Wall Stop	RM861	US32D	RO	087100	
1 Gasketing	S88D		PE	087100	

Notes: ALT 1 ADD CARD READER

OPENING 022, 023, 100, 110, 111, 112, 113, 114, 115, 116, 121, 124, 125, 126, 127, 128, 129, 141, 142, 143, 144, 145

PROVIDE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786, 1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 17.1**

Doors: 105A

Description: ALD OFFICE LOCK NO CLOSER GASKET

Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100	
---------------------	------------------------	-------	----	--------	--

Office/Entry Lock	DG1 8205 LNMB	US26D	SA	087100
Wall Stop	RM861	US32D	RO	087100
Set Weatherstrip	by Door Manufacturer			

**Set: 18.0**

Doors: 039B, 039C

Description: OFFICE LOCK NO CLOSER

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100
1 Office/Entry Lock	DG1 8205 LNMB	US26D	SA	087100
1 Surface Closer	7500 PR/REG per dr swing	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
3 Silencer	608		RO	087100

Notes: ALT 1 ADD CARD READER  
OPENING 039B, 039C

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 19.0**

Doors: 134

Description: STOREROOM LOCK CPS CLOSER

3 Hinge, Full Mortise, Hvy Wt	T4A3786 NRP 4-1/2" x 4-1/2"	US26D	MK	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
1 Cylinder Rim/Mortise	type as req'd for hardware item, match existing key system			
1 Door Closer	CPS7500	689	NO	087100
1 Gasketing	S88D		PE	087100

Notes: GC TO CONFIRM EXISTING FRAME PREP WILL ACCEPT NEW HARWARE AS  
SPECIFIED. COMPLY WITH ALL UL CRITERIA FOR FIELD MODIFICATIONS.

ALT 1 ADD CARD READER  
OPENING 134

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 20.0**Doors: 020, ~~153~~

Description: STOREROOM LOCK CLOSER

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
1 Surface Closer	7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
3 Silencer	608		RO	087100

Notes: ALT 1 ADD CARD READER  
OPENING 020 AND 153

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 21.0**

Doors: 014

Description: STOREROOM LOCK PR CLOSER STC GASKET WIDE

3 Hinge, Full Mortise, Hvy Wt	T4A3786 NRP 5" x 4-1/2"	US26D	MK	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
1 Door Closer	PR7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
2 Gasketing	S88D Double Row for Sound		PE	087100
1 Frame Protection Pads	ACP112BL		PE	087100
1 Door Bottom, concealed	434APKL		PE	087100
1 Threshold	154A		PE	087100

**Set: 22.0**

Doors: 040, 138A, 149, 157

Description: STOREROOM LOCK CLOSER STC GASKET

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
1 Surface Closer	7500	689	NO	087100

1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
2 Gasketing	S88D Double Row for Sound		PE	087100
1 Frame Protection Pads	ACP112BL		PE	087100
1 Door Bottom, concealed	434APKL		PE	087100
1 Threshold	154A		PE	087100

Notes: ALT 1 ADD CARD READER  
OPENING 040, 138A, 149, 157

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 23.0**

Doors: 122

Description: STOREROOM LOCK NO CLOSER

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
1 Surf Overhead Stop	10-336	630	RF	087100
3 Silencer	608		RO	087100

**Set: 24.0**

Doors: 021

Description: STOREROOM EXIT PR CLOSER STC GASKET

3 Hinge, Full Mortise, Hvy Wt	T4A3786 NRP 4-1/2" x 4-1/2"	US26D	MK	087100
1 Rim Exit Device, Storeroom	DG1 8804 ETMB	US32D	SA	087100
1 Door Closer	PR7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
2 Gasketing	S88D Double Row for Sound		PE	087100
1 Frame Protection Pads	ACP112BL		PE	087100
1 Door Bottom, concealed	434APKL		PE	087100
1 Threshold	154A		PE	087100

Notes: ALT 1 ADD CARD READER  
OPENING 021

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,



1 T4A3786 QC, DG1 55-8876 ETMB 32D, 2 WIRING HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 25.0**

Doors: 042A

Description: PAIR STOREROOM LOCK OH STOP CPS CLOSER GASKET SWEEP TH

8 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP 4-1/2" x 4-1/2"	US32D	MK	087100
1 Dust Proof Strike	570	US26D	RO	087100
2 Flush Bolt	555/557 per dr mtrl	US26D	RO	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
2 Door Closer	CPS7500	689	NO	087100
2 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
2 Wall Stop	RM861	US32D	RO	087100
1 Astragal Set	by Door Manufacturer			
1 Gasketing	2891AS		PE	087100
2 Sweep	315CN		PE	087100
1 Threshold	171A		PE	087100

Notes: ALT 1 ADD CARD READER  
OPENING 042A

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 7 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 26.0**

Doors: 153, 156

Description: PAIR STOREROOM LOCK MFB CLOSER

6 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Dust Proof Strike	570	US26D	RO	087100
2 Flush Bolt	555/557 per dr mtrl	US26D	RO	087100
1 Storeroom/Closet Lock	DG1 8204 LNMB	US26D	SA	087100
1 Conc Overhead Stop	1-336	630	RF	087100
1 Surface Closer	7500	689	NO	087100
2 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
2 Silencer	608		RO	087100

Notes: ALT 1 ADD CARD READER

## OPENING 156

PROVIDE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 5 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 27.0**

Doors: 048, 140B

Description: CLASSROOM LOCK CLOSER GASKET

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Classroom Lock	DG1 8237 LNMB	US26D	SA	087100
1 Surface Closer	7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

Notes: ALT 1 ADD CARD READER  
OPENING 048

PROVIDE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,  
1 T4A3786 QC, DG1 8270 FAIL SAFE / 8271 FAIL SECURE RX LNMB 26D, 2 WIRING  
HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 28.0**

Doors: 047

Description: PAIR CLASSROOM LOCK SELF LATCH FB TOP CLOSER GASKET

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Flush Bolt	2905/2805 per dr mtrl self latch top only	US26D	RO	087100
1 Classroom Lock	DG1 8237 LNMB	US26D	SA	087100
1 Coordinator	2600	Black	RO	087100
1 Mounting Bracket	2601 Mounting Brackets	Black	RO	087100
1 Conc Overhead Stop	1-336	630	RF	087100
1 Surface Closer	7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 29.0**

Doors: 155A, 155B

Description: CLASSROOM EXIT HO CLOSER GASKET

3 Hinge, Full Mortise, Hvy Wt	T4A3786 NRP 4-1/2" x 4-1/2"	US26D	MK	087100
1 Rim Exit Device, Classroom	DG1 8813 ETMB	US32D	SA	087100
1 Door Closer	PR7500	689	NO	087100
1 Surface Closer	PR7500H	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 30.0**

Doors: 012, 013, 025, 027, 028, 029, 036, 038, 130, 131, 132, 133, 136, 137

Description: PRIVACY W/INDICATOR NO CLOSER GASKET

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100
1 Privacy Lock	V20 8266 LNMB	US26D	SA	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 31.0**

Doors: 032, 033, 034, 123

Description: PRIVACY W/INDICATOR NO CLOSER HINGE PIN GASKET

3 Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK	087100
1 Privacy Lock	V20 8266 LNMB	US26D	SA	087100
1 Door Stop	76306	US26D	MK	087100
1 Gasketing	S88D		PE	087100

Notes: ALT 1 ADD CARD READER  
OPENING 123

PROIVE HARDWARE SET WITH THE FOLLOWING ITEMS FOR ALTERNATE #1 - 2 T4A3786,  
1 T4A3786 QC, DG1 NAC-82281 FAIL SECURE / NAC-82280 FAIL SAFE W/PHR OPTION X V20  
INDICATOR, 2 WIRING HARNESS, DPS, POWER SUPPLY AND CARD READER.

**Set: 32.0**

Doors: 147

Description: PASSAGE LATCH CLOSER OH STOP

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
------------------------	-------------------------	-------	----	--------

1 Passage Latch	8215 LNMB	US26D	SA	087100
1 Conc Overhead Stop	1-336	630	RF	087100
1 Surface Closer	7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
3 Silencer	608		RO	087100

**Set: 33.0**

Doors: 139

Description: PASSAGE LATCH PR CLOSER GASKET

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Passage Latch	8215 LNMB	US26D	SA	087100
1 Door Closer	PR7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 34.0**

Doors: 154B

Description: PASSAGE LATCH NO CLOSER

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Passage Latch	8215 LNMB	US26D	SA	087100
1 Wall Stop	RM861	US32D	RO	087100
3 Silencer	608		RO	087100

**Set: 35.0**

Doors: 030

Description: PASSAGE LATCH CLOSER OH STOP GASKET

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Passage Latch	8215 LNMB	US26D	SA	087100
1 Conc Overhead Stop	1-336	630	RF	087100
1 Surface Closer	7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 36.0**

Doors: 049A

## Description: PASSAGE CLOSER GASKET

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Passage Latch	8215 LNMB	US26D	SA	087100
1 Surface Closer	7500	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 37.0**

Doors: ST-1B

## Description: PASSAGE RIM EXIT CAM CLOSER GASKET

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK	087100
1 Rim Exit Device, Passage	12 8815 ETMB	US32D	SA	087100
1 Surface Closer	2800ST	689	NO	087100
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Gasketing	S88D		PE	087100

**Set: 38.0**

Doors: 043B

## Description: ALD PASSAGE EXIT PR CLOSER

1 Continuous Hinge	CFMSLF-HD1		PE	087100
1 Rim Exit Device, Passage	AD8515 ETMB	US32D	SA	087100
1 Door Closer	PR7500	689	NO	087100
1 Drop Plate	7788	689	NO	087100
1 Blade Stop	6891	689	NO	087100
1 Wall Stop	RM861	US32D	RO	087100
1 Set Weatherstrip	by Door Manufacturer			

**Set: 39.0**

Doors: 100B

## Description: ALD DUMMY EXIT X PULL X AUTO OPERATOR

1 Continuous Hinge	CFMSLF-HD1		PE	087100
1 Push Bar	8893	US32D	SA	087100
1 Door Pull, offset	RM3310-24 Mtg-Type 12XHD	US32D	RO	087100
1 Conc Overhead Stop	1-336	630	RF	087100

1 Automatic Opener	6061 D	689	NO	087100	⚡
1 Set Weatherstrip	by Door Manufacturer				
1 Wall Switch, wave mullion mount	704		NO	087100	⚡

**Set: 40.0**

Doors: MISC

Description: MISC

1 BITTING LIST	KEY RECORDS	SA
1 KEY BLANKS	BOX OF 50	SA
1 Key Cabinet	Sized per specification documents	LU
1 Knox Box	Knox Box (coordinate with local fire station for requirements and location)	

**Set: 41.0**

Doors: 150

Description: ICC500 PAIR EXIT DEVICE W/ELEC TRIM CLOSER MHO

1 Continuous Hinge	HG305 x Door Height	630	MR	087100	
1 Continuous Hinge	HG305 EL4 x Door Height	630	MR	087100	⚡
1 Multipoint Exit Device	DG1 12 FM8706 ETMB	US32D	SA	087100	
1 Fail Secure Exit Device	12 FM8774-24v ETMB	US32D	SA	087100	⚡
2 Surface Closer	TB 281 P10	EN	SA	087100	
2 Latch Cover Kick Plate	BFLG1050 10" 2" LDW	US32D	RO	087100	
2 Electromagnetic Holder	998M	689	RF	087100	⚡
2 Astragal	305CN x Door Height		PE	087100	
1 Gasketing	S773D (Head & Jambs)		PE	087100	
1 Threshold	1715A x Opening Width		PE	087100	
1 ElectroLynx Harness	QC-C1500P/QC-C1500		MK	087100	⚡
1 ElectroLynx Harness	QC-Cxx/CxxP (size to door width/hardware)		MK	087100	⚡
1 Card Reader	Wall Mounted Reader by access control provider		HID		
2 Position Switch	DPS-M-BK		SU	087100	⚡
1 Power Supply	AQD1-1R x hardware requirements		SU	087100	⚡

Notes: CUTOUT THRESHOLD SO BOTTOM STRIKE CAN BE MOUNTED TO CONCRETE FLOOR AND NOT ON THE THRESHOLD.  
ACCESS BY AUTHORIZED CARD CREDENTIAL OR MANUAL KEY. ALWAYS FREE EGRESS.

DOORS WILL HAVE A 5/8" UNDERCUT.

END OF SECTION 087100