

SECTION 08 71 00
DOOR HARDWARE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Door hardware and related items necessary for complete installation and operation of doors.

1.2 RELATED WORK

- A. Caulking: Section 07 92 00 JOINT SEALANTS.
- B. Application of Hardware: Section 08 14 00, WOOD DOORS Section 08 11 13, HOLLOW METAL DOORS AND FRAMES.
- C. Finishes: to match existing.
- D. Painting: Section 09 91 00, PAINTING.
- E. Card Readers: Section 28 13 00, PHYSICAL ACCESS CONTROL SYSTEMS.

1.3 GENERAL

- A. All hardware shall comply with UFAS, (Uniform Federal Accessible Standards) unless specified otherwise.
- B. Provide rated door hardware assemblies where required by most current version of the International Building Code (IBC).
- C. Hardware for Labeled Fire Doors and Exit Doors: Conform to requirements of NFPA 80 for labeled fire doors and to NFPA 101 for exit doors, as well as to other requirements specified. Provide hardware listed by UL, except where heavier materials, large size, or better grades are specified herein under paragraph HARDWARE SETS. In lieu of UL labeling and listing, test reports from a nationally recognized testing agency may be submitted showing that hardware has been tested in accordance with UL test methods and that it conforms to NFPA requirements.
- D. Hardware for application on metal and wood doors and frames shall be made to standard templates. Furnish templates to the fabricator of these items in sufficient time so as not to delay the construction.
- E. The following items shall be of the same manufacturer, except as otherwise specified:
 - 1. Mortise locksets.
 - 2. Hinges for hollow metal and wood doors.
 - 3. Surface applied overhead door closers.
 - 4. Exit devices.
 - 5. Floor closers.

1.4 WARRANTY

- A. Automatic door operators shall be subject to the terms of FAR Clause 52.246-21, except that the Warranty period shall be two years in lieu of one year for all items except as noted below:
1. Locks, latchsets, and panic hardware: 5 years.
 2. Door closers and continuous hinges: 10 years.

1.5 MAINTENANCE MANUALS

- A. In accordance with Section 01 00 00, GENERAL REQUIREMENTS Article 1.25 titled "INSTRUCTIONS", furnish maintenance manuals and instructions on all door hardware. Provide installation instructions with the submittal documentation.

1.6 SUBMITTALS

- A. Submittals shall be in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. Submit 6 copies of the schedule per Section 01 33 23. Submit 2 final copies of the final approved schedules to VAACC Locksmith as record copies (VISN Locksmith if the VAACC does not have a locksmith).
- B. Hardware Schedule: Prepare and submit hardware schedule in the following form:

Hardware Item	Quantity	Size	Reference Publication Type No.	Finish	Mfr. Name and Catalog No.	Key Control Symbols	UL Mark (if fire rated and listed)	ANSI/BHMA Finish Designation

- C. Samples and Manufacturers' Literature:

1. Samples: All hardware items (proposed for the project) that have not been previously approved by Builders Hardware Manufacturers Association shall be submitted for approval. Tag and mark all items with manufacturer's name, catalog number and project number.
2. Samples are not required for hardware listed in the specifications by manufacturer's catalog number, if the contractor proposes to use the manufacturer's product specified.

- D. Certificate of Compliance and Test Reports: Submit certificates that hardware conforms to the requirements specified herein. Certificates

shall be accompanied by copies of reports as referenced. The testing shall have been conducted either in the manufacturer's plant and certified by an independent testing laboratory or conducted in an independent laboratory, within four years of submittal of reports for approval.

1.7 DELIVERY AND MARKING

- A. Deliver items of hardware to job site in their original containers, complete with necessary appurtenances including screws, keys, and instructions. Tag one of each different item of hardware and deliver to COR for reference purposes. Tag shall identify items by Project Specification number and manufacturer's catalog number. These items shall remain on file in COR's office until all other similar items have been installed in project, at which time the COR will deliver items on file to Contractor for installation in predetermined locations on the project.

1.8 PREINSTALLATION MEETING

- A. Convene a preinstallation meeting not less than 30 days before start of installation of door hardware. Require attendance of parties directly affecting work of this section, including Contractor and Installer, Architect, Project Engineer and VA Locksmith, Hardware Consultant, and Hardware Manufacturer's Representative. Review the following:
 - 1. Inspection of door hardware.
 - 2. Job and surface readiness.
 - 3. Coordination with other work.
 - 4. Protection of hardware surfaces.
 - 5. Substrate surface protection.
 - 6. Installation.
 - 7. Adjusting.
 - 8. Repair.
 - 9. Field quality control.
 - 10. Cleaning.

1.9 INSTRUCTIONS

- A. Hardware Set Symbols on Drawings: Except for protective plates, door stops, mates, thresholds and the like specified herein, hardware requirements for each door are indicated on drawings by symbols. Symbols for hardware sets consist of letters (e.g., "HW") followed by a

number. Each number designates a set of hardware items applicable to a door type.

- B. Keying: All cylinders shall be keyed into existing BEST Grand Master Key System. Provide removable core cylinders that are removable only with a special key or tool without disassembly of knob or lockset. Cylinders shall be 7 pin types. Keying information shall be furnished at a later date by the COR.

1.10 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only. In text, hardware items are referred to by series, types, etc., listed in such specifications and standards, except as otherwise specified.
- B. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):
- A156.1-06.....Butts and Hinges
 - A156.2-03.....Bored Locks and Latches
 - A156.3-08.....Coordinators, and Auto Flush Bolts
 - A156.4-08.....Door Controls (Closers)
 - A156.6-05.....Architectural Door Trim
 - A156.13-05.....Mortise Locks and Latches Series 1000
 - A156.18-06.....Materials and Finishes
 - A156.22-05.....Door Gasketing and Edge Seal Systems
 - A156.25-07Electrified Locking Devices
 - A156.28-07Master Keying Systems
 - A156.31-07Electric Strikes and Frame Mounted Actuators
 - A250.8-03.....Standard Steel Doors and Frames
- C. National Fire Protection Association (NFPA):
- 80-10.....Fire Doors and Fire Windows
 - 101-09.....Life Safety Code
- D. Underwriters Laboratories, Inc. (UL):
- Building Materials Directory (2008)

PART 2 - PRODUCTS

2.1 BUTT HINGES

- A. ANSI A156.1. Provide only three-knuckle hinges, except five-knuckle where the required hinge type is not available in a three-knuckle version (e.g., some types of swing-clear hinges). The following types

of butt hinges shall be used for the types of doors listed, except where otherwise specified:

1. Exterior Doors: Type A2112/A5112 for doors 900 mm (3 feet) wide or less and Type A2111/A5111 for doors over 900 mm (3 feet) wide. Hinges for exterior outswing doors shall have non-removable pins. Hinges for exterior fire-rated doors shall be of stainless steel material.

2. Interior Doors: Type A8112/A5112 for doors 900 mm (3 feet) wide or less and Type A8111/A5111 for doors over 900 mm (3 feet) wide. Hinges for doors exposed to high humidity areas (shower rooms, toilet rooms, kitchens, janitor rooms, etc. shall be of stainless steel material.

B. Provide quantity and size of hinges per door leaf as follows:

1. Doors up to 1210 mm (4 feet) high: 2 hinges.

2. Doors 1210 mm (4 feet) to 2260 mm (7 feet 5 inches) high: 3 hinges minimum.

3. Doors greater than 2260 mm (7 feet 5 inches) high: 4 hinges.

4. Doors up to 900 mm (3 feet) wide, standard weight: 114 mm x 114 mm (4-1/2 inches x 4-1/2 inches) hinges.

5. Doors over 900 mm (3 feet) to 1065 mm (3 feet 6 inches) wide, standard weight: 127 mm x 114 mm (5 inches x 4-1/2 inches).

6. Doors over 1065 mm (3 feet 6 inches) to 1210 mm (4 feet), heavy weight: 127 mm x 114 mm (5 inches x 4-1/2 inches).

7. Provide heavy-weight hinges where specified.

8. At doors weighing 330 kg (150 lbs.) or more, furnish 127 mm (5 inch) high hinges.

C. See Articles "MISCELLANEOUS HARDWARE" and "HARDWARE SETS" for pivots and hinges other than butts specified above and continuous hinges specified below.

2.2 DOOR CLOSING DEVICES

A. Closing devices shall be products of one manufacturer.

2.3 OVERHEAD CLOSERS

A. Conform to ANSI A156.4, Grade 1.

B. Closers shall conform to the following:

1. The closer shall have minimum 50 percent adjustable closing force over minimum value for that closer and have adjustable hydraulic

- back check effective between 60 degrees and 85 degrees of door opening.
2. Where specified, closer shall have hold-open feature.
 3. Size Requirements: Provide multi-size closers, sizes 1 through 6, except where multi-size closer is not available for the required application.
 4. Material of closer body shall be forged or cast.
 5. Arm and brackets for closers shall be steel, malleable iron or high strength ductile cast iron.
 6. Where closers are exposed to the exterior or are mounted in rooms that experience high humidity, provide closer body and arm assembly of stainless steel material.
 7. Closers shall have full size metal cover; plastic covers will not be accepted.
 8. Closers shall have adjustable hydraulic back-check, separate valves for closing and latching speed, adjustable back-check positioning valve, and adjustable delayed action valve.
 9. Provide closers with any accessories required for the mounting application, including (but not limited to) drop plates, special soffit plates, spacers for heavy-duty parallel arm fifth screws, bull-nose or other regular arm brackets, longer or shorter arm assemblies, and special factory templating. Provide special arms, drop plates, and templating as needed to allow mounting at doors with overhead stops and/or holders.
 10. Closer arms or backcheck valve shall not be used to stop the door from overswing, except in applications where a separate wall, floor, or overhead stop cannot be used.
 11. Provide parallel arm closers with heavy duty rigid arm.
 12. Where closers are to be installed on the push side of the door, provide parallel arm type except where conditions require use of top jamb arm.
 13. Provide all surface closers with the same body attachment screw pattern for ease of replacement and maintenance.
 14. All closers shall have a 1 ½" (38mm) minimum piston diameter.

2.4 DOOR STOPS

- A. Conform to ANSI A156.16.

- B. Provide door stops wherever an opened door or any item of hardware thereon would strike a wall, column, equipment or other parts of building construction. For concrete, masonry or quarry tile construction, use lead expansion shields for mounting door stops.
- C. Where cylindrical locks with turn pieces or pushbuttons occur, equip wall bumpers Type L02251 (rubber pads having concave face) to receive turn piece or button.
- D. Provide floor stops (Type L02141 or L02161 in office areas; Type L02121 x 3 screws into floor elsewhere. Wall bumpers, where used, must be installed to impact the trim or the door within the leading half of its width. Floor stops, where used, must be installed within 4-inches of the wall face and impact the door within the leading half of its width.
- E. Where drywall partitions occur, use floor stops, Type L02141 or L02161 in office areas, Type L02121 elsewhere.
- F. Provide stop Type L02011, as applicable for exterior doors. At outswing doors where stop can be installed in concrete, provide stop mated to concrete anchor set in 76mm (3-inch) core-drilled hole and filled with quick-setting cement.
- G. Omit stops where floor mounted door holders are required and where automatic operated doors occur.
- H. Provide appropriate roller bumper for each set of doors (except where closet doors occur) where two doors would interfere with each other in swinging.
- I. Provide appropriate door mounted stop on doors in individual toilets where floor or wall mounted stops cannot be used.
- J. Provide overhead surface applied stop Type C02541, ANSI A156.8 on patient toilet doors in bedrooms where toilet door could come in contact with the bedroom door.
- K. Provide door stops on doors where combination closer magnetic holders are specified, except where wall stops cannot be used or where floor stops cannot be installed within 4-inches of the wall.
- L. Where the specified wall or floor stop cannot be used, provide concealed overhead stops (surface-mounted where concealed cannot be used).

2.5 LOCKS AND LATCHES

- A. Conform to ANSI A156.2. Locks and latches for doors 45 mm (1-3/4 inch) thick or over shall have beveled fronts. Lock cylinders shall have not

less than seven pins. Cylinders for all locksets shall be removable core type. Cylinders shall be furnished with construction removable cores and construction master keys. Cylinder shall be removable by special key or tool. Construct all cores so that they will be interchangeable into the core housings of all mortise locks, rim locks, cylindrical locks, and any other type lock included in the Great Grand Master Key System. Disassembly of lever or lockset shall not be required to remove core from lockset. All locksets or latches on double doors with fire label shall have latch bolt with 19 mm (3/4 inch) throw, unless shorter throw allowed by the door manufacturer's fire label. Provide temporary keying device or construction core to allow opening and closing during construction and prior to the installation of final cores.

- B. In addition to above requirements, locks and latches shall comply with following requirements:
 - 1. Mortise Lock and Latch Sets: Conform to ANSI/BHMA A156.13. Mortise locksets shall be series 1000, minimum Grade 2. All locksets and latchsets, except on designated doors in Psychiatric (Mental Health) areas, shall have lever handles fabricated from cast stainless steel. Provide sectional (lever x rose) lever design meeting or equal to the Falcon Dane lever with Gala rose. No substitute lever material shall be accepted. All locks and latchsets shall be furnished with 122.55 mm (4-7/8-inch) curved lip strike and wrought box. At outswing pairs with overlapping astragals, provide flat lip strip with 21mm (7/8-inch) lip-to-center dimension. Lock function F02 shall be furnished with emergency tools/keys for emergency entrance. All lock cases installed on lead lined doors shall be lead lined before applying final hardware finish. Furnish armored fronts for all mortise locks. Where mortise locks are installed in high-humidity locations or where exposed to the exterior on both sides of the opening, provide non-ferrous mortise lock case.

2.6 ELECTRIC STRIKES

- A. ANSI/ BHMA A156.31 Grade 1.
- B. General: Use fail-secure electric strikes at fire-rated doors.

2.7 KEYS

- A. Stamp all keys with change number and key set symbol. Furnish keys in quantities as follows:

Locks/Keys	Quantity
Cylinder locks	2 keys each
Cylinder lock change key blanks	100 each different key way
Master-keyed sets	6 keys each
Grand Master sets	6 keys each
Great Grand Master set	5 keys
Control key	2 keys

2.8 ARMOR PLATES, KICK PLATES, MOP PLATES AND DOOR EDGING

- A. Conform to ANSI Standard A156.6.
- B. Provide protective plates as specified below:
- Kick plates, mop plates and armor plates of metal, Type J100 series.
 - Provide kick plates and mop plates where specified. Kick plates shall be 305 mm (12 inches) high. Mop plates shall be 152 mm (6 inches) high. Both kick and mop plates shall be minimum 1.27 mm (0.050 inches) thick. Provide kick and mop plates beveled on all 4 edges (B4E). On push side of doors where jamb stop extends to floor, make kick plates 38 mm (1-1/2 inches) less than width of door, except pairs of metal doors which shall have plates 25 mm (1 inch) less than width of each door. Extend all other kick and mop plates to within 6 mm (1/4 inch) of each edge of doors. Kick and mop plates shall butt astragals. For jamb stop requirements, see specification sections pertaining to door frames.
 - Kick plates and/or mop plates are not required on following door sides:
 - Armor plate side of doors;
 - Exterior side of exterior doors;
 - Closet side of closet doors;
 - Both sides of aluminum entrance doors.
 - Armor plates for doors are listed under Article "Hardware Sets". Armor plates shall be thickness as noted in the hardware set, 875 mm (35 inches) high and 38 mm (1-1/2 inches) less than width of doors, except on pairs of metal doors. Provide armor plates beveled on all

4 edges (B4E). Plates on pairs of metal doors shall be 25 mm (1 inch) less than width of each door. Where top of intermediate rail of door is less than 875 mm (35 inches) from door bottom, extend armor plates to within 13 mm (1/2 inch) of top of intermediate rail. On doors equipped with panic devices, extend armor plates to within 13 mm (1/2 inch) of panic bolt push bar.

2.9 FLUSH BOLTS (LEVER EXTENSION)

- A. Conform to ANSI A156.16. Flush bolts shall be Type L24081 unless otherwise specified. Furnish proper dustproof strikes conforming to ANSI A156.16, for flush bolts required on lower part of doors.
- B. Lever extension manual flush bolts shall only be used at non-fire-rated pairs for rooms only accessed by maintenance personnel.
- C. Face plates for cylindrical strikes shall be rectangular and not less than 25 mm by 63 mm (1 inch by 2-1/2 inches).
- D. Friction-fit cylindrical dustproof strikes with circular face plate may be used only where metal thresholds occur.
- E. Provide extension rods for top bolt where door height exceeds 2184 mm (7 feet 2 inches).

2.10 FLUSH BOLTS (AUTOMATIC)

- A. Conform to ANSI A156.3. Dimension of flush bolts shall conform to ANSI A115. Bolts shall conform to Underwriters Laboratories, Inc., requirements for fire door hardware. Flush bolts shall automatically latch and unlatch. Furnish dustproof strikes conforming to ANSI A156.16 for bottom flushbolt. Face plates for dustproof strike shall be rectangular and not less than 38 mm by 90 mm (1-1/2 by 3-1/2 inches).
- B. At interior doors, provide auto flush bolts less bottom bolt, unless otherwise specified, except at wood pairs with fire-rating greater than 20 minutes; provide fire pins as required by auto flush bolt and door fire labels.

2.11 COORDINATORS

- A. Conform to ANSI A156.16. Coordinators, when specified for fire doors, shall comply with Underwriters Laboratories, Inc., requirements for fire door hardware. Coordinator may be omitted on exterior pairs of doors where either door will close independently regardless of the position of the other door. Coordinator may be omitted on interior pairs of non-labeled open where open back strike is used. Open back strike shall not be used on labeled doors. Paint coordinators to match

door frames, unless coordinators are plated. Provide bar type coordinators, except where gravity coordinators are required at acoustic pairs. For bar type coordinators, provide filler bars for full width and, as required, brackets for push-side surface mounted closers, overhead stops, and vertical rod panic strikes.

2.12 MISCELLANEOUS HARDWARE

- A. Mutes: Conform to ANSI A156.16. Provide door mutes or door silencers Type L03011 or L03021, depending on frame material, of white or light gray color, on each steel or wood door frame, except at fire-rated frames, lead-lined frames and frames for sound-resistant, lightproof and electromagnetically shielded doors. Furnish 3 mutes for single doors and 2 mutes for each pair of doors, except double-acting doors. Provide 4 mutes or silencers for frames for each Dutch type door. Provide 2 mutes for each edge of sliding door which would contact door frame.

2.13 PADLOCKS FOR VARIOUS DOORS, GATES AND HATCHES

- A. ASTM E883, size 50 mm (2 inch) wide chain; furnish extended shackles as required by job conditions. Provide padlocks, with key cylinders, for each door in following areas as noted.
- B. Key padlocks as follows:
1. Chain Link Fence Gates for Electrical Substation and other Fenced Buildings or Areas: Engineer's set, except as otherwise specified.

2.14 FINISHES

- A. Exposed surfaces of hardware shall have ANSI A156.18, finishes as specified below. Finishes on all hinges, pivots, closers, thresholds, etc., shall be as specified below under "Miscellaneous Finishes." For field painting (final coat) of ferrous hardware, see Section 09 91 00, PAINTING.
- B. 626 or 630: All surfaces on exterior and interior of buildings, except where other finishes are specified.
- C. Miscellaneous Finishes:
1. Hinges --exterior doors: 626 or 630.
 2. Hinges --interior doors: 652 or 630.
 4. Door Closers: Factory applied paint finish. Dull or Satin Aluminum color.
- D. Hardware Finishes for Existing Buildings: U.S. Standard finishes shall match finishes of hardware in (similar) existing spaces.

E. Anti-microbial Coating: All hand-operated hardware (levers, pulls, push bars, push plates, paddles, and panic bars) shall be provided with an anti-microbial/anti-fungal coating that has passed ASTM E2180 tests. Coating to consist of ionic silver (Ag⁺). Silver ions surround bacterial cells, inhibiting growth of bacteria, mold, and mildew by blockading food and respiration supplies.

2.15 BASE METALS

A. Apply specified U.S. Standard finishes on different base metals as following:

Finish	Base Metal
652	Steel
626	Brass or bronze
630	Stainless steel

PART 3 - EXECUTION

3.1 HARDWARE HEIGHTS

- A. For existing buildings locate hardware on doors at heights to match existing hardware. The Contractor shall visit the site, verify location of existing hardware and submit locations to VA COR for approval.
- B. Hardware Heights from Finished Floor:
1. Locksets and latch sets centerline of strike 1024 mm (40-5/16 inches).
 2. Locate other hardware at standard commercial heights. Locate push and pull plates to prevent conflict with other hardware.

3.2 INSTALLATION

A. Closer devices, including those with hold-open features, shall be equipped and mounted to provide maximum door opening permitted by building construction or equipment. Closers shall be mounted on side of door inside rooms, inside stairs, and away from corridors. At exterior doors, closers shall be mounted on interior side. Where closers are mounted on doors they shall be mounted with sex nuts and bolts; foot shall be fastened to frame with machine screws.

B. Hinge Size Requirements:

Door Thickness	Door Width	Hinge Height
45 mm (1-3/4 inch)	900 mm (3 feet) and less	113 mm (4-1/2 inches)
45 mm (1-3/4 inch)	Over 900 mm (3 feet) but not more than 1200 mm (4	125 mm (5 inches)

	feet)	
35 mm (1-3/8 inch) (hollow core wood doors)	Not over 1200 mm (4 feet)	113 mm (4-1/2 inches)

C. Hinge leaves shall be sufficiently wide to allow doors to swing clear of door frame trim and surrounding conditions.

D. Where new hinges are specified for new doors in existing frames or existing doors in new frames, sizes of new hinges shall match sizes of existing hinges; or, contractor may reuse existing hinges provided hinges are restored to satisfactory operating condition as approved by COR. Existing hinges shall not be reused on door openings having new doors and new frames. Coordinate preparation for hinge cut-outs and screw-hole locations on doors and frames.

E. Hinges Required Per Door:

Doors 1500 mm (5 ft) or less in height	2 butts
Doors over 1500 mm (5 ft) high and not over 2280 mm (7 ft 6 in) high	3 butts
Doors over 2280 mm (7 feet 6 inches) high	4 butts
Dutch type doors	4 butts
Doors with spring hinges 1370 mm (4 feet 6 inches) high or less	2 butts
Doors with spring hinges over 1370 mm (4 feet 6 inches)	3 butts

F. Fastenings: Suitable size and type and shall harmonize with hardware as to material and finish. Provide machine screws and lead expansion shields to secure hardware to concrete, ceramic or quarry floor tile, or solid masonry. Fiber or rawl plugs and adhesives are not permitted. All fastenings exposed to weather shall be of nonferrous metal.

G. After locks have been installed; show in presence of COR that keys operate their respective locks in accordance with keying requirements. (All keys, Master Key level and above shall be sent Registered Mail to the Ambulatory Care Center Director along with the bitting list. Also a copy of the invoice shall be sent to the COR for his records.) Installation of locks which do not meet specified keying requirements shall be considered sufficient justification for rejection and replacement of all locks installed on project.

H. The security contractor is to be provided with a single point pigtail connection at each controlled door. All hardware/hinge/power transfer interconnect and wiring at the door is to be provided by the general trades contractor. The connections from the door hardware to the electrified hinge/power transfer shall be modular plug to allow replacement of components without the need to cut/splice wiring.

3.3 FINAL INSPECTION

- A. Installer to provide letter to VA COR that upon completion, installer has visited the Project and has accomplished the following:
1. Re-adjust hardware.
 2. Evaluate maintenance procedures and recommend changes or additions, and instruct VA personnel.
 3. Identify items that have deteriorated or failed.
 4. Submit written report identifying problems.

3.4 DEMONSTRATION

- A. Demonstrate efficacy of mechanical hardware and electrical, and electronic hardware systems, including adjustment and maintenance procedures, to satisfaction of COR/Project Engineer and VA Locksmith.

3.5 HARDWARE SETS

- A. Following sets of hardware correspond to hardware symbols shown on drawings.

Hardware Group No. 1A

For use on mark/door #(s):

1A014	1B006	1B116	1B121	2A004	2A018
2B003	2B102	3A015	4A041		

Provide each SGL door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	REUSE EXISTING	652	ANSI
1	EA	ELECTRIFIED LOCK	MA641 BDC DG (DORMITORY LOCK)	626	FAL
1	EA	PERMANENT CORE	SFIC KEYED TO EXISTING SYSTEM	626	BES
1	EA	ELECTRIC STRIKE	E09391 (FAIL-SECURE), 24VDC	630	ANSI
1	EA	SURFACE CLOSER	C02011/C02021	689	ANSI
1	EA	KICK PLATE	REUSE EXISTING J102	630	ANSI
1	EA	WALL STOP	REUSE EXISTING	626	ANSI
3	EA	SILENCER	L03011	GRY	ANSI
1	EA	CREDENTIAL READER	BY DIVISION 28		
1	EA	ALARM CONTACT	CONCEALED SPDT MAGNETIC SWITCH		
1	set	SELF ADHESIVE SEALS	ROY154		ANSI
1	EA	MOTION SENSOR	FOCUSED ACTIVE INFRARED REQUEST TO EXIT DETECTOR JST(14 PIN WIRING INTERFACE)		

1 EA POWER SUPPLY REGULATED, FILTERED, 24VDC,
AMPERAGE AS REQUIRED)

Verify existing frames for hinge and strike preps.

Door normally closed and locked. Presenting a valid credential to the reader will momentarily unlock the electric strike allowing access. Activation of the motion sensor to shunt the alarm output of the door contact. Door contact monitors whether the door is open or closed. Door to remain locked upon loss of power or activation of the fire alarm. Free egress at all times by depressing lock lever.

Hardware Group No. 1B

For use on mark/door #(s):

DOOR 1B107

Provide each SGL door(s) with the following:

Qty	Description	Catalog Number	Finish	Mfr
Provide each SGL door(s) with the following:				
3 EA	HINGE	REUSE EXISTING	652	ANSI
1 EA	ELECTRIFIED LOCK	MA641 BDC DG (DORMITORY LOCK)	626	FAL
1 EA	PERMANENT CORE	SFIC KEYED TO EXISTING SYSTEM	626	BES
1 EA	ELECTRIC STRIKE	E09391 (FAIL-SECURE), 24VDC	630	ANSI
1 EA	SURFACE CLOSER	C02011/C02021	689	ANSI
2 EA	ARMOR PLATE	J101	630	ANSI
1 EA	WALL STOP	REUSE EXISTING	626	ANSI
1 set	SMOKE SEALS	ROY154		ANSI
3 EA	SILENCER	L03011	GRY	ANSI
1 EA	CREDENTIAL READER	BY DIVISION 28		
1 EA	ALARM CONTACT	CONCEALED SPDT MAGNETIC SWITCH		
1 set	SELF ADHESIVE SEALS	ROY154		ANSI
1 EA	MOTION SENSOR	FOCUSED ACTIVE INFRARED REQUEST TO EXIT DETECTOR JST(14 PIN WIRING INTERFACE)		
1 EA	POWER SUPPLY	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED		

Verify existing frames for hinge and strike preps.

Door normally closed and locked. Presenting a valid credential to the reader will momentarily unlock the electric strike allowing access. Activation of the motion sensor to shunt the alarm output of the door contact. Door contact monitors whether the door is open or closed. Door to remain locked upon loss of power or activation of the fire alarm. Free egress at all times by depressing lock lever.

Hardware Group No. 1C

For use on mark/door #(s):

DOOR 2A210, 2A210A

Provide each SGL door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5 NRP (A8112) (REUSE EXISTING HINGES ON DOOR 2A210)	652	ANSI
1	EA	ELECTRIFIED LOCK	MA641 BDC DG (DORMITORY LOCK)	626	FAL
1	EA	PERMANENT CORE	SFIC KEYED TO EXISTING SYSTEM	626	BES
1	EA	ELECTRIC STRIKE	E09391 (FAIL-SECURE), 24VDC	630	ANSI
1	EA	SURFACE CLOSER	C02011/C02021	689	ANSI
1	EA	KICK PLATE	REUSE EXISTING (J102)	630	ANSI
1	EA	VIEW FINDER	REUSE FROM EXISTING DOOR		
1	EA	WALL STOP	REUSE EXISTING	626	ANSI
3	EA	SILENCER	L03011	GRY	ANSI
1	EA	CREDENTIAL READER	BY DIVISION 28		
1	EA	ALARM CONTACT	CONCEALED SPDT MAGNETIC SWITCH		
1	set	SELF ADHESIVE SEALS	ROY154		ANSI
1	EA	MOTION SENSOR	FOCUSED ACTIVE INFRARED REQUEST TO EXIT DETECTOR JST(14 PIN WIRING INTERFACE)		
1	EA	POWER SUPPLY	(REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED)	LGR	

Verify existing frames for hinge and strike preps.

Door normally closed and locked. Presenting a valid credential to the reader will momentarily unlock the electric strike allowing access. Activation of the motion sensor to shunt the alarm output of the door contact. Door contact monitors whether the door is open or closed. Door to remain locked upon loss of power or activation of the fire alarm. Free egress at all times by depressing lock lever.

Hardware Group No. 1D

For use on mark/door #(s):

1A024 1A110 1B002 2A143 3A004 3A063

Provide each SGL door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	REUSE EXISTING	652	ANSI
1	EA	ELECTRIFIED LOCK	MA641 BDC DG (DORMITORY LOCK)	626	FAL
1	EA	PERMANENT CORE	SFIC KEYED TO EXISTING SYSTEM	626	BES
1	EA	ELECTRIC STRIKE	6216 FSE	630	ANSI
1	EA	SURFACE CLOSER	C02011/C02021	689	ANSI
1	EA	KICK PLATE	REUSE EXISTING J102	630	ANSI
1	EA	WALL STOP	REUSE EXISTING	626	ANSI
3	EA	SILENCER	L03011	GRY	ANSI
1	EA	CREDENTIAL READER	BY DIVISION 28		
1	EA	ALARM CONTACT	CONCEALED SPDT MAGNETIC SWITCH		
1	set	SELF ADHESIVE SEALS	ROY154		ANSI
1	EA	MOTION SENSOR	FOCUSED ACTIVE INFRARED REQUEST TO EXIT DETECTOR JST(14 PIN WIRING INTERFACE)		

1 EA POWER SUPPLY REGULATED, FILTERED, 24VDC,
AMPERAGE AS REQUIRED)

Verify existing frames for hinge and strike preps.

Door normally closed and locked. Presenting a valid credential to the reader will momentarily unlock the electric strike allowing access. Activation of the motion sensor to shunt the alarm output of the door contact. Door contact monitors whether the door is open or closed. Door to remain locked upon loss of power or activation of the fire alarm. Free egress at all times by depressing lock lever.

Hardware Group No. 2A

For use on mark/door #(s):
1B212

Provide each PR door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
6	EA	HINGE	REUSE EXISTING		
1	SET	AUTO FLUSH BOLT	FB31P (Type 25)	630	ANSI
1	EA	APARTMENT/ CORRIDOR LOCK	MA531BB7 DG (F20)	630	FAL
1	EA	PERMANENT CORE	SFIC KEYED TO EXISTING SYSTEM	626	BES
1	EA	COORDINATOR	COR X FL (Type 21A)	628	ANSI
2	EA	MOUNTING BRACKET	MB	689	IVE
2	EA	SURFACE CLOSER	C02011/C02041 PT-4A, PT-4C, PT-4D, PT-4H)	689	ANSI
2	EA	KICKPLATE	REUSE EXISTING		
2	EA	WALL STOP	L12201	626	ANSI
1	SET	SEALS	ROE154	BRN	ANSI
1	SET	ASTRAGAL	R3J734	CL	ANSI
1	EA	MAGNETIC LOCK	REUSE EXISTING		
1	EA	CARD READER	REUSE EXISTING		
2	EA	ALARM CONTACT	CONCEALED SPDT MAGNETIC SWITCH		
1	EA	PUSHBUTTON	2" SQ EXIT PUSH BUTTON, ILLUMINATED 24VDC	630	
1	EA	MOTION SENSOR	FOCUSED ACTIVE INFRARED REQUEST TO EXIT DETECTOR JST(14 PIN WIRING INTERFACE)		
1	EA	POWER SUPPLY	REUSE EXISTING		

Verify existing frames for hinge and strike preps.

Business Hours: Doors normally closed, lockset manually unlocked and magnetic lock powered on/secured. Presenting a valid credential to the reader will momentarily unlock the magnetic lock allowing access. Free egress at all times by motion sensor or redundant push button. Magnetic lock to unlock upon loss of power or activation of the fire alarm.

After Hours: Doors normally closed, lockset manually locked and magnetic lock powered off. Free egress at all times by inside lever handle.

Door contact monitors whether the door is open or closed.

Hardware Group No. 2B

For use on mark/door #(s):
1A360A

Provide each PR door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
6	EA	HINGE	REUSE EXISTING	652	
1	EA	DOOR CORD	TYPE 21A		
1	SET	AUTO FLUSH BOLT	FB31P (Type 25)	630	ANSI
1	EA	EU STOREROOM LOCK	F7	626AM	
1	EA	PERMANENT CORE	SFIC KEYED TO EXISTING SYSTEM	626	BES
1	EA	COORDINATOR	COR X FL (Type 21A)	628	ANSI
2	EA	MOUNTING BRACKET	MB	689	IVE
2	EA	SURFACE CLOSER	C02011/C02021	689	ANSI
2	EA	KICK PLATE	REUSE EXISTING (J102)	630	ANSI
2	EA	WALL STOP	L12201	626	ANSI
1	SET	SEALS	ROE154	BRN	ANSI
1	SET	ASTRAGAL	R3J734	CL	ANSI
1	EA	CREDENTIAL READER	BY DIVISION 28		
2	EA	ALARM CONTACT	CONCEALED SPDT MAGNETIC SWITCH		
1	EA	MOTION SENSOR	FOCUSED ACTIVE INFRARED REQUEST TO EXIT DETECTOR JST(14 PIN WIRING INTERFACE)		
1	EA	POWER SUPPLY	(REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED)		

Verify existing frames for hinge and strike preps.

Door normally closed and locked. Presenting a valid credential to the reader will momentarily unlock the lock allowing access. Activation of the motion sensor to shunt the alarm output of the door contact. Door contact monitors whether the door is open or closed.

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