

**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. Section 07 92 00 JOINT SEALANTS.
- B. Section 08 14 00, WOOD DOORS.
- C. Section 08 11 13, HOLLOW METAL DOORS AND FRAMES
- D. SECTION 09 91 00, PAINTING.

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 wood doors.
 - 3. Surface applied overhead door closers.
 - 4. Exit devices.

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 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 VAMC Locksmith as record copies (VISN Locksmith if the VAMC 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 INSTRUCTIONS

- A. Hardware Set Symbols on Drawings: Except for protective plates, door stops, mutes, 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 Syracuse VA Great Grand Master Key System. Provide removable core cylinders that are removable only with a special key or tool without disassembly of knob or lockset.

1.9 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 Society for Testing and Materials (ASTM):
 - F883-04.....Padlocks
 - E2180-07.....Standard Test Method for Determining the
Activity of Incorporated Antimicrobial Agent(s)
In Polymeric or Hydrophobic Materials
- C. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):
 - A156.1-06.....Butts and Hinges
 - A156.2-03.....Bored and Pre-assembled Locks and Latches
 - A156.3-08.....Exit Devices, Coordinators, and Auto Flush Bolts
 - A156.4-08.....Door Controls (Closers)

- A156.5-01.....Auxiliary Locks and Associated Products
- A156.6-05.....Architectural Door Trim
- A156.8-05.....Door Controls-Overhead Stops and Holders
- A156.12-05Interconnected Locks and Latches
- A156.13-05.....Mortise Locks and Latches Series 1000
- A156.14-07Sliding and Folding Door Hardware
- A156.15-06.....Release Devices-Closer Holder, Electromagnetic
and Electromechanical
- A156.16-08.....Auxiliary Hardware
- A156.17-04Self-Closing Hinges and Pivots
- A156.18-06.....Materials and Finishes
- A156.20-06Strap and Tee Hinges, and Hasps
- A156.21-09.....Thresholds
- A156.22-05.....Door Gasketing and Edge Seal Systems
- A156.23-04.....Electromagnetic Locks
- A156.24-03.....Delayed Egress Locking Systems
- A156.25-07Electrified Locking Devices
- A156.26-06.....Continuous Hinges
- A156.28-07Master Keying Systems
- A156.29-07Exit Locks and Alarms
- A156.30-03High Security Cylinders
- A156.31-07Electric Strikes and Frame Mounted Actuators
- A250.8-03.....Standard Steel Doors and Frames
- D. National Fire Protection Association (NFPA):
 - 80-10.....Fire Doors and Fire Windows
 - 101-09.....Life Safety Code
- E. 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: Manufactured by Stanley or approved equal FBB191 or 199.
 - 1. 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, LCN or approved equal.

2.3 OVERHEAD CLOSERS

A. Conform to ANSI A156.4, Grade 1. LCN 4040 BF or approved equal.

B. Closers shall match existing closers to remain and 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.
- 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 appropriate door mounted stop on doors in individual toilets where floor or wall mounted stops 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. Manufactured by Best. Cylinder shall be removable by special key or tool. Provide Best interchangeable cores for all mortise locks, cylindrical locks, deadbolts, exit devices, etc. 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 existing Great Grand Master Key System. Disassembly of lever or lockset shall not be required to remove core from lockset. Provide temporary keying device or construction core of 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: Provide Best Series 95K
 - 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 matching Adjacent existing doors. 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. Cylindrical Lock and Latch Sets: levers shall meet ADA (Americans with Disabilities Act) requirements. Cylindrical locksets shall be

- series 4000 Grade I. 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. Provide lever design to match design selected by Architect or to match existing lever design. Where two turn pieces are specified for lock F76, turn piece on inside knob shall lock and unlock inside knob, and turn piece on outside knob shall unlock outside knob when inside knob is in the locked position. (This function is intended to allow emergency entry into these rooms without an emergency key or any special tool.)
3. Auxiliary locks shall be as specified under hardware sets and conform to ANSI A156.5.
 4. Privacy locks in non-mental-health patient rooms shall have an inside thumbturn for privacy and an outside thumbturn for emergency entrance.

2.6 ELECTRIC STRIKES

- A. ANSI/ BHMA A156.31 Grade 1. 1006 Series HES Innovations or approved equal.
- 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	3 keys each core

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

- A. Conform to ANSI Standard A156.6. US32D, S.S. Screw mounted
- B. Provide protective plates as specified below:
 1. Kick plates, mop plates and armor plates of, Type S.S. J100 series.
 2. Provide kick plates and mop plates where specified. Kick plates shall be 254 mm (10 inches) or 305 mm (12 inches) high. Mop plates shall be (8 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.

3. Kick plates and/or mop plates are not required on following door sides:

- a. Armor plate side of doors

4. 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 EXIT DEVICES

- A. Conform to ANSI Standard A156.3. Exit devices shall be Grade 1; type and function are specified in hardware sets. Trim shall have cast satin stainless steel lever handles of design similar to locksets, unless otherwise specified. Provide key cylinders for keyed operating trim and, where specified, cylinder dogging.
- B. At non-rated openings with panic hardware, provide panic hardware with key cylinder dogging feature.
- C. Exit devices for fire doors shall comply with Underwriters Laboratories, Inc., requirements for Fire Exit Hardware. Submit proof of compliance.

2.10 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).

2.11 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.

2.12 DOOR PULLS WITH PLATES

- A. Conform to ANSI A156.6. Pull Type S.S. J401, 152 mm (6 inches) high by 19 mm (3/4 inches) diameter with plate Type S.S. J302, 90 mm by 350 mm (3-1/2 inches by 14 inches), unless otherwise specified. Provide pull with projection of 70 mm (2 3/4 inches) and a clearance of 51 mm (2 inches). Cut plates of door pull plate for cylinders, or turn pieces where required.

2.13 PUSH PLATES

- A. Conform to ANSI A156.6., Type S.S. J302, (4 inches) wide by 350 mm (14 inches) high. Provide metal Type J302 plates 100 mm (4 inches wide by 350 mm (14 inches) high) where push plates are specified for doors with stiles less than 200 mm (8 inches) wide. Cut plates for cylinders, and turn pieces where required.

2.14 COMBINATION PUSH AND PULL PLATES

- A. Conform to ANSI 156.6. Type J303, stainless steel 3 mm (1/8 inch) thick, 80 mm (3-1/3 inches) wide by 800 mm (16 inches) high), top and bottom edges shall be rounded. Secure plates to wood doors with 38 mm (1-1/2 inch) long No. 12 wood screws. Cut plates for turn pieces, and cylinders where required. Pull shall be mounted down.

2.15 MISCELLANEOUS HARDWARE

- A. Access Doors (including Sheet Metal Types): Except for fire-rated doors and doors to Temperature Control Cabinets, equip each single or double metal access door with Lock Type E76213, conforming to ANSI A156.5. Key locks as directed. Ship lock prepaid to the door manufacturer. Hinges shall be provided by door manufacturer.
- B. Mutes: Conform to ANSI A156.16. Provide door mutes or door silencers Type L03011 or L03021, depending on frame material, of light gray color, on each steel frame, except at fire-rated frames. 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.

2.16 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 Satin Finish

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 for hardware not in existing building:
- Exit devices centerline of strike (where applicable) 1024 mm (40-5/16 inches).
 - Locksets and latch sets centerline of strike 1024 mm (40-5/16 inches).
 - Deadlocks centerline of strike 1219 mm (48 inches).
 - Hospital arm pull 1168 mm (46 inches) to centerline of bottom supporting bracket.
 - Centerline of door pulls to be 1016 mm (40 inches).
 - Push plates and push-pull shall be 1270 mm (50 inches) to top of plate.
 - Push-pull latch to be 1024 mm (40-5/16 inches) to centerline of strike.
 - 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.

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 feet)	125 mm (5 inches)
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. 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

E. 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.

F. After locks have been installed; show in presence of CORCOTR that keys operate their respective locks in accordance with keying requirements. Core 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.

3.3 FINAL INSPECTION

A. Installer to provide letter to VA COTR 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 Resident/Project Engineer and VA Locksmith.

3.5 HARDWARE SETS

- A. Following sets of hardware correspond to hardware symbols shown on drawings. Only those hardware sets that are shown on drawings will be required. Disregard hardware sets listed in specifications but not shown on drawings.
- B. Hardware Consultant working on a project will be responsible for providing additional information regarding these hardware sets. The numbers shown in the following sets come from BHMA standards.

ELECTRIC HARDWARE ABBREVIATIONS LEGEND:

ADO = Automatic Door Operator

EMCH = Electro-Mechanical Closer-Holder

MHO = Magnetic Hold-Open (wall- or floor-mounted)

INTERIOR SINGLE DOORS

HW-1

Each Door to Have:

NON-RATED

Hinges	QUANTITY & TYPE AS REQUIRED
	X HOSPITAL TIPS @ INSWING DOORS
1 Door Pull w/ Plate	J401 x J302
1 Push Plate	J302
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Closer	C02011/C02021
1 Wall Stop	102101 CONVEX
3 Silencers	L03011

HW-1AEach Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
	X HOSPITAL TIPS @ INSWING DOORS
1 Latchset	F01
1 Closer	C02011/C02021
	x INSTALL OUTSIDE ROOM
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop	L02121 x 3 FASTENERS
3 Silencers	L03011

HW-1JEach [MHO] Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Latchset	F01
1 Closer	C02011/C02021
1 Magnetic Holder	C00011 TRI-VOLTAGE
1 Set Self-Adhesive Seals	R0Y154

POWER, WIRING, CONDUIT, AND FIRE ALARM CONNECTION BY DIVISION 26.

HW-1LEach Door to Have:NON-RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Latchset	F01
1	Kick Plate	J102
1	Wall Stop	L02101 CONVEX
3	Silencers	L03011

HW-2Each Door to Have:RATED/NON-RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Keyed Privacy Indicator Lock	F13 x OCCUPANCY INDICATOR
1	Closer	C02011/C02021
1	Kick Plate	J102
1	Mop Plate (@ Inswing Doors)	J103
1	Wall Stop	L02101 CONVEX
3	Silencers	L03011

HW-3BEach Door to Have:NON-RATED/RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Office Lock	F04
1	Closer	C02011/C02021
1	Floor Stop	L02121 x 3 FASTENERS
3	Silencers	L03011

HW-3EEach Door to Have:NON-RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Office Lock	F04
1	Wall Stop	L02101 CONVEX
3	Silencers	L03011

HW-5DEach Door to Have:NON-RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Storeroom Lock	F07
1	Kick Plate	J102 (@ STORAGE, EVM, & HAC ROOMS ONLY)
1	Wall Stop L02101 CONVEX	
1	Wall Stop (@ Outswing Doors)	L02101 CONVEX
3	Silencers	L03011

HW-6Each Door to Have:RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Exit Device	TYPE 1 F13 LEVER
1	Key Cylinder	TYPE AS REQUIRED
1	Closer	C02011/C02021
1	Wall Stop	L02101 CONVEX
1	Kickplate	J102 (Public corr. Side)

SECURITY HARDWARE ABBREVIATIONS LEGEND:

AC = Access Control Device (Card reader, biometric reader, keypad, etc.)
 ADO = Automatic Door Operator
 DEML = Delayed Egress Magnetic Lock
 DEPH = Delayed Egress Panic Exit Device
 DPS = Door Position Switch (Door or Alarm Contact)
 EL = Electric Lock or Electric Lever Exit Device
 PB = Push-button Combination Lock (stand-alone)
 RR = Remote Release Button
 ELR = Electric Latch Retraction Exit Device
 REX = Request-to-Exit Switch in Latching Device Inside Trim

HW-SH-3Each [AC, EL, REX, DPS] Door to Have:RATED/NON-RATED

	QUANTITY & TYPE AS REQUIRED
Hinges	
1 Transfer Hinge	4-WIRE TYPE AS REQUIRED
1 Electrified Lock	F07 (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Closer	C02011/C02021
1 Floor Stop	L02121 x 3 FASTENERS
1 Kickplate	J102
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.

CARD READER BY DIVISION 28.

HW-SH-3EEach [AC, EL, REX, DPS] Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Transfer Hinge	4-WIRE TYPE AS REQUIRED
1 Electrified Occupancy Indicator Lock	F13-MODIFIED (E01-REX, E06) 24VDC X OCCUPANCY INDICATOR X KEY RETRACTS LATCHBOLT AND DEADBOLT X INTERNAL DEADBOLT MONITOR SWITCH
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Closer	C02011/C02021
1 Floor Stop	L02121 x 3 FASTENERS
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154
1 Alarm Contact	

INTERNAL DEADBOLT MONITOR SWITCH SHUNTS ACCESS CONTROL DEVICE WHEN DEADBOLT IS THROWN.

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.

CARD READER BY DIVISION 28.

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