

**SECTION 08 71 00  
DOOR HARDWARE**

SPEC WRITER NOTE: Delete between // // if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.

**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 // Section 08 17 10, INTEGRATED DOOR ASSEMBLIES // Section 08 41 13, ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS // Section 08 42 33, REVOLVING DOOR ENTRANCES // Section 08 33 00, COILING DOORS AND GRILLES // Section 08 33 13, COILING COUNTER DOORS // Section 08 34 36, DARKROOM DOORS // Section 08 34 53, SECURITY DOORS AND FRAMES // Section 08 34 73, SOUND CONTROL DOOR ASSEMBLIES // Section 08 42 23, INTENSIVE CARE UNIT/CRITICAL CARE UNIT (ICU/CCU) ENTRANCES // Section 08 42 29, AUTOMATIC ENTRANCES // Section 08 71 13, AUTOMATIC DOOR OPERATORS //Section 08 71 13.11, LOW ENERGY DOOR OPERATORS // Section 13 49 00, RADIATION PROTECTION // Section 32 31 33, CHAIN LINK FENCES AND GATES // and Section 32 31 19, DECORATIVE METAL FENCES AND GATES //
- C. Finishes: Section 09 06 00, SCHEDULE FOR FINISHES.
- D. Painting: Section 09 91 00, PAINTING.
- E. Card Readers: Section 28 13 00, PHYSICAL ACCESS CONTROL SYSTEMS.
- F. Electrical: Division 26, ELECTRICAL.
- G. Fire Detection: Section 28 31 00, FIRE DETECTION AND ALARM.

**1.3 GENERAL**

- A. All hardware shall comply with ABAAS, (Architectural Barriers Act Accessibility Standard) 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.

SPEC WRITER NOTE: The word "FIRE" must be included as part of the certification on the Underwriters Laboratories label on exit devices to be used on fire doors.

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 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: AHC certified hardware consultant to 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

SPEC WRITER NOTE: Delete paragraph below when scope of work doesn't include inpatient Mental and Behavioral Health services

C. //Ligature Resistant Door Alarm Riser Diagram: Prepare and submit 6 copies of shop drawings of electric riser diagram complete with all required equipment components. Submission shall be in accordance with requirements per Section 01 33 23 for review and approval by project CO. Along with shop drawing submittal provide installation data. At completion of project provide CO with operation and maintenance manuals//

D. 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.

E. 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.

F. //Record of opening force measurement for all doors equipped with closers//

#### **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, 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.

SPEC WRITER NOTE: Delete following paragraph if new hospital station, or where existing station is to be rekeyed.

B. //Keying: All cylinders shall be keyed into existing \_\_\_\_\_ // 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 //. Cylinders shall be // 6 // 7 // pin type. Keying information shall be furnished at a later date by the COR.//

SPEC WRITER NOTE: When the project requires a new keying system, include

following paragraph. For projects at existing hospitals use above paragraph.

C. Keying: A new Great Grandmaster key shall be established for this project. The key system shall be small format (Best size and profile) removable core type as previously described. The key blanks shall be protected by a utility patent with a minimum seven years remaining on the patent from the start of construction, and protected by contract-controlled distribution. The manufacturer shall furnish code pattern listings in both paper and electronic formats so keys may be reproduced by code.; provide electronic format in file type required by project's key control software. The manufacturer shall design the new key system with the capacity to rekey the existing system and also provide for 25 percent expansion capability beyond this requirement. Submit a keying chart for approval showing proposed keying layout and listing expansion capacity.

- 1. Keying information will be furnished to the Contractor by the COR.
- 2. Supply information regarding key control of cylinder locks to manufacturers of equipment having cylinder type locks. Notify COR immediately when and to whom keys or keying information is supplied. Return all such keys to the COR.

SPEC WRITER NOTE: Contractor shall verify with the station personnel, the location of key identification to be stamped on cylinders.

**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. ASTM International (ASTM):

- F883-13.....Padlocks
- E2180-18.....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)
- A156.5-14.....Cylinders and Input Devices for Locks.
- A156.6-05.....Architectural Door Trim
- A156.8-05.....Door Controls-Overhead Stops and Holders
- A156.11-14.....Cabinet Locks
- A156.12-05 .....Interconnected Locks and Latches
- A156.13-05.....Mortise Locks and Latches Series 1000
- A156.14-07 .....Sliding and Folding Door Hardware
- A156.15-06.....Release Devices-Closer Holder, Electromagnetic  
and Electromechanical
- A156.16-08.....Auxiliary Hardware
- A156.17-04 .....Self-Closing Hinges and Pivots
- A156.18-06.....Materials and Finishes
- A156.20-06 .....Strap 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
- A156.25-07 .....Electrified Locking Devices
- A156.26-06.....Continuous Hinges
- A156.28-07 .....Master Keying Systems
- A156.29-07 .....Exit Locks and Alarms
- A156.30-03 .....High Security Cylinders
- A156.31-07 .....Electric Strikes and Frame Mounted Actuators
- A156.36-10.....Auxiliary Locks
- A250.8-03.....Standard Steel Doors and Frames
- D. National Fire Protection Association (NFPA):
- 80-10.....Fire Doors and Other Opening Protectives
- 101-09.....Life Safety Code
- E. Underwriters Laboratories, Inc. (UL):
- Building Materials Directory (2008)
- F. Architectural Barriers Act Accessibility Standards (ABAAS)

**PART 2 - PRODUCTS**

SPEC WRITER NOTE: Under "Hardware Sets", schedule special hinges for doors over 1200 mm (4 feet) wide and other special doors. Also schedule special hinges such as spring hinges and strap hinges.

## 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 pounds) 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 CONTINUOUS HINGES

- A. ANSI/BHMA A156.26, Grade 1-600.
1. Listed under Category N in BHMA's "Certified Product Directory."
- B. General: Minimum 0.120-inch- (3.0-mm-) thick, hinge leaves with minimum overall width of 4 inches (102 mm); fabricated to full height of door and frame and to template screw locations; with components finished after milling and drilling are complete

C. Continuous, Barrel-Type Hinges: Hinge with knuckles formed around a Teflon-coated 6.35mm (0.25-inch) minimum diameter pin that extends entire length of hinge.

1. Base Metal for Exterior Hinges: Stainless steel.
2. Base Metal for Interior Hinges: //Stainless steel// //Steel//.
3. Base Metal for Hinges for Fire-Rated Assemblies: //Stainless steel// //Steel//.
4. Provide with non-removable pin (hospital tip option) at lockable outswing doors.
5. Where required to clear adjacent casing, trim, and wall conditions and allow full door swing, provide wide throw hinges of minimum width required.
6. Provide with manufacturer's cut-outs for separate mortised power transfers and/or mortised automatic door bottoms where they occur.
7. Where thru-wire power transfers are integral to the hinge, provide hinge with easily removable portion to allow easy access to wiring connections.
8. Where models are specified that provide an integral wrap-around edge guard for the hinge edge of the door, provide manufacturer's adjustable threaded stud and machine screw mechanism to allow the door to be adjusted within the wrap-around edge guard.

### **2.3 DOOR CLOSING DEVICES**

A. Closing devices shall be products of one manufacturer // for each type specified. //

### **2.4 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.

SPEC WRITER NOTE: Discuss with the Medical Center on the desirability of using floor closers and Pivot sets versus other closers types for other than lead lined doors.

## **2.5 FLOOR CLOSERS AND FLOOR PIVOT SETS**

A. Comply with ANSI A156.4. Provide stainless steel floor plates for floor closers and floor pivots, except where metal thresholds occur. Provide cement case for all floor closers. Floor closers specified for fire doors shall comply with Underwriters Laboratories, Inc., requirements for concealed type floor closers for classes of fire doors indicated on drawings. Hold-open mechanism, where required, shall engage when door is opened 105 degrees, except when door swing is limited by building construction or equipment, the hold-open feature shall engage when door is opened approximately 90 degrees.

The hold-open mechanism shall be selectable on/off by turning a screw through the floor plate. Floor closers shall have adjustable hydraulic back-check, adjustable close speed, and adjustable latch speed. Provide closers with delayed action where a hold-open mechanism is not required. Floor closers shall be multi-sized. Single acting floor closers shall also have built in dead stop. Where required, provide closers with special cement cases appropriate for shallow deck installation or where concrete joint lines run through the floor blockout. At offset-hung doors installed in deep reveals, provide special closer arm and spindle to allow for installation. Where stone or terrazzo is applied over the floor closer case, provide closer without floor plate and with extended spindle (length as required) and special cover pan (depth as required) to allow closer to be accessed without damaging the material applied over the closer. Pivots for non-labeled doors shall be cast, forged or extruded brass or bronze.

B. Where floor closer appears in hardware set provide the following as applicable.

1. Double Acting Floor Closers: Type C06012.
2. Single Acting Floor Closer: Type C06021 (center pivoted).  
(Intermediate pivot is not required).
3. Single Acting Floor Closers: Type C06041 (offset pivoted).
4. Single Acting Floor Closer for Labeled Fire Doors: Type C06051  
(offset pivoted).
5. Single Acting Floor Closers For Lead Lined Doors: Type C06071 (offset pivoted).

SPEC WRITER NOTE: Discuss with VA personnel availability of various types of door holders and closers and recommend the best product that will conform to VA criteria and produce the desired results. Wherever possible, specify wall-mounted magnetic holders instead combination closer-holders.

## 2.6 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 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).

## **2.7 OVERHEAD DOOR STOPS AND HOLDERS**

- A. Conform to ANSI Standard A156.8. Overhead holders shall be of sizes recommended by holder manufacturer for each width of door. Set overhead holders for 110 degree opening, unless limited by building construction or equipment. Provide Grade 1 overhead concealed slide type: stop-only at rated doors and security doors, hold-open type with exposed hold-open on/off control at all other doors requiring overhead door stops.

## 2.8 FLOOR DOOR HOLDERS

A. Conform to ANSI Standard A156.16. Provide extension strikes for Types L01301 and L01311 holders where necessary.

### SPEC WRITER NOTES:

1. Use construction removable cores on all new hospital jobs.
2. Because of the different security requirements found in VA facilities, the designer is advised to discuss these issues with appropriate VA personnel prior to the design phase of the project. In addition to patient and employee security, areas requiring security includes medical records, drug storage, biological and animal research, retail sales and agent cashiers. The designer is to explain to VA personnel the different types of security locking systems that are currently available, and make recommendations as to what is the best system to be used for each security problem. Specify pushbutton locks, card-reader-controlled electric locks, or keyed locks per site-specific requirements and the requirements of the VA Physical Security Manual.
3. Determine if VA is to receive permanent cylinders to be installed by VA locksmith or if they are CONtractor-installed.

## 2.9 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 // six pins // 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:

SPEC WRITER NOTE:

Insert manufacturer and lever design below—Architect is encouraged to consider modern or traditional designer levers for areas that are in view of the public and patients

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 [\_\_\_\_\_]. 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 A156.36.
4. Locks on designated doors in Psychiatric (Mental Health) areas shall be paddle type with arrow projection covers and be UL Listed. Provide

these locks with paddle in the down position on both sides of the door. Locks shall be fabricated of wrought stainless steel.

**SPEC WRITER NOTES:**

Because of the different security requirements found in VA facilities, the designer is advised to discuss these issues with appropriate VA personnel prior to the design phase of the project. In addition to patient and employee security, areas requiring security includes medical records, drug storage, biological and animal research, retail sales and agent cashiers. The designer is to explain to VA personnel the different types of security locking systems that are currently available, and make recommendations as to what is the best system to be used for each security problem. Specify pushbutton locks, card-reader-controlled electric locks, or keyed locks per site-specific requirements and the requirements of the VA Physical Security Manual.

**2.10 PUSH-BUTTON COMBINATION LOCKS**

- A. ANSI/BHMA A156.5, Grade 1. Battery operated pushbutton entry.
- B. Construction: Heavy duty mortise lock housing conforming to ANSI/BHMA A156.13, Grade 1. Lever handles and operating components in compliance with the ABAAS and the ADA Accessibility Guidelines. Match lever handles of locks and latchsets on adjacent doors.
- C. Special Features: Key override to permit a master keyed security system and a pushbutton security code activated passage feature to allow access without using the entry code.

**2.11 ELECTROMAGNETIC LOCKS**

**SPEC WRITER NOTES:** Indicate configuration of electromagnetic locks - direct-hold or shear type - and mounting in door hardware sets or on Drawings.

- A. ANSI/BHMA A156.23; electrically powered, of strength and configuration indicated; with electromagnet attached to frame and armature plate attached to door. Listed under Category E in BHMA's "Certified Product Directory."
  1. Type: Full exterior or full interior, as required by application indicated.
  2. Strength Ranking: //1500 pound force (6672 N)// //1000 pound force (4448 N)// //500 pound force (2224 N)//.
  3. Inductive Kickback Peak Voltage: Not more than //53// //0// V.

4. Residual Magnetism: Not more than //4 pound force (18 N)// //0 pound force (0 N)// to separate door from magnet.

B. Delayed-Egress Locks: BHMA A156.24.// Listed under Category G in BHMA's "Certified Product Directory". //

1. Means of Egress Doors: Lock releases within 15 seconds after applying a force not more than 15 pound force (67 N) for not more than 3 seconds, as required by NFPA 101.

2. Security Grade: Activated from secure side of door by initiating device.

3. Movement Grade: Activated by door movement as initiating device.

4. The lock housing shall not project more than 4-inches (101mm) from the underside of the frame head stop.

## 2.12 ELECTRIC STRIKES

A. ANSI/ BHMA A156.31 Grade 1.

B. General: Use fail-secure electric strikes at fire-rated doors.

## 2.13 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

B. Psychiatric keys shall be cut so that first two bittings closest to the key shoulder are shallow to provide greater strength at point of greatest torque.

## 2.14 KEY CABINET

A. ANSI Standard A156.11. Provide key cabinet made of cold rolled, 1.2 mm (0.0478 inch) thick furniture steel electro-welded. Doors shall have "no sag" continuous brass-pin piano type hinge and be equipped with chrome plated locking door handles, hook cam and mechanical pushbutton door lock. Key Cabinet and Key Control System shall accommodate all keys for this project plus 25 percent. Provide minimum number of multiple cabinets where a single cabinet of largest size will not accommodate the required number of keys.

B. Key tags shall consist of two sets: Permanent self-locking and loan key snaphook type with tag colors as follows: Red fiber marker of the permanent self-locking type approximately 32 mm (1-1/4 inch) in diameter engraved with the legend "FILE KEY MUST NOT BE LOANED." Also furnish for each hook a white cloverleaf key marker with snap-hooks engraved with the legend "LOAN KEY."

C. The manufacturer of the lock cylinders and locks shall attach a key tag to keys of each lock cylinder and shall mark thereon the respective item number and key change number. Provide each group of keys in a key gathering envelope (supplied by Key Cabinet Manufacturer) in which the lock manufacturer shall include the following information: Item number, key change number and door number. The contractor shall furnish the Key Cabinet Manufacturer the hardware and keying schedules and change keys.

D. The Key Cabinet Manufacturer shall set up a three-way cross index system, including master keys, listing the keys alphabetically, the hooks numerically and the key changes numerically on different colored index cards. Index cards shall be typewritten and inserted in a durable binder. Attach the keys to the two sets of numbered tags supplied with the cabinet. (The permanent tag and the loan key tag). Instruct the owner in proper use of the system. Install cabinet as directed by the COR.

SPEC WRITER NOTE: Check height of existing kick-mop plates. Use 200 mm (8 inch) high plates on alteration work to match existing and 125 mm (5 inch) high plates on new work.

Note that vinyl door edges are specified in section 10 26 00 WALL AND DOOR PROTECTION.

## **2.15 ARMOR PLATES, KICK PLATES, MOP PLATES AND DOOR EDGING**

A. Conform to ANSI Standard A156.6.

B. Provide protective plates // and door edging // as specified below:

1. Kick plates, mop plates and armor plates of metal, Type 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 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.

3. Kick plates and/or mop plates are not required on following door sides:
  - a. Armor plate side of doors;
  - b. Exterior side of exterior doors;
  - c. Closet side of closet doors;
  - d. Both sides of aluminum entrance 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.
5. Where louver or grille occurs in lower portion of doors, substitute stretcher plate and kick plate in place of armor plate. Size of stretcher plate and kick plate shall be 254 mm (10 inches) high.
6. Provide stainless steel edge guards where so specified at wood doors. Provide mortised type instead of surface type except where door construction and/or ratings will not allow. Provide edge guards of bevel and thickness to match wood door. Provide edge guards with factory cut-outs for door hardware that must be installed through or extend through the edge guard. Provide full-height edge guards except where door rating does not allow; in such cases, provide edge guards to height of bottom of typical lockset armor front. Forward edge guards to wood door manufacturer for factory installation on doors.

## **2.16 EXIT DEVICES**

A. Conform to ANSI Standard A156.3. Exit devices shall be Grade 1; type and function are specified in hardware sets. Provide flush with finished floor strikes for vertical rod exit devices in interior of building. 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. Surface vertical rod panics shall only be provided less bottom rod; provide fire pins as required by exit device and door fire labels. Do not provide surface vertical rod panics at exterior doors.
- C. Concealed vertical rod panics shall be provided less bottom rod at interior doors, unless lockable or otherwise specified; provide fire pins as required by exit device and door fire labels. Where concealed vertical rod panics are specified at exterior doors, provide with both top and bottom rods.
- D. Where removable mullions are specified at pairs with rim panic devices, provide mullion with key-removable feature.
- E. At non-rated openings with panic hardware, provide panic hardware with key cylinder dogging feature.
- F. Exit devices for fire doors shall comply with Underwriters Laboratories, Inc., requirements for Fire Exit Hardware. Submit proof of compliance.

#### **2.17 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).

#### **2.18 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).

SPEC WRITER NOTE: Review less bottom bolt option for security doors with campus locksmith. Specify auto flush bolts with bottom bolts and dust proof strikes if so requested by campus locksmith.

- 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.

SPEC WRITER NOTE: Delete the paragraph below and subparagraphs that follow that pertain to ligature resistant alarm hardware when inpatient Mental Healthcare and Behavioral services are not included within project scope of work.

**2.19 // LIGATURE RESISTANT DOOR ALARM:**

A. Provide ligature resistant, monitoring and notification system capable of detecting a ligature-initiated event at a patient bedroom door. An alarm system will trigger audio and visual notification devices at the bedroom door and nurse's station to alert staff of a ligature emergency. The system shall be addressable, self-monitoring, and able to diagnose alarm and system problems. The system shall be capable of documenting ligature-initiated events

B. Components of Alarm System:

1. Ligature-initiating Alarm:

SPEC WRITER NOTE: Spec Writer shall select one paragraph from the following two to install either a pressure activated alarm or photoelectric sensor alarm. Both are deemed acceptable for use on VA Mental Healthcare facilities.

- a. //Pressure alarm assembly: Nominal 5 pounds pressure activated alarm. Specific activation pressure adjustment and setting to be based upon manufacturer's specific design and instructions. In no case shall the activation pressure be allowed to exceed 10 pounds. Door alarm assembly must be constructed of stainless steel and made by the door alarm manufacturer.//
- b. //Photoelectric sensor alarm assembly: Photoelectric sensors shall be positioned on the door and frame within anti-ligature casings constructed of Acetal (Polyoxymethylene-POM) an impact resistant plastic commonly called Delrin. Provide the following installation configuration for the sensors://

SPEC WRITER NOTE: Spec Writer shall select one paragraph from the following two for installation of the photoelectric sensors

- 1) //Two sets of sensors at the top of the door at door and frame//.

- 2) //Two sets of sensors at the top of the door at door and frame and one set of sensors at the bottom at the undercut of the door.//
  - c. The alarm assembly circuit shall be concealed and redundant providing a tamper resistant, failsafe operation.
  - d. The alarm assemblies are to be installed with tamper resistant fasteners only.
2. Hinge and Power Transfer
    - a. Power transfer section of hinge shall be housed at the top end of the continuous hinge to eliminate the potential of exposed wires or flex conduit.
    - b. The power transfer section of the hinge shall be field removable to eliminate the need to remove the door when addressing electrical service issues.
3. Local Visual Alarm (Strobe)
    - a. Install in corridor above monitored room doors throughout facility.
    - b. Alarm unit shall be anti-ligature with a sloped top, made of resilient material and fastened with tamper resistant hardware.
    - c. Door alarm units shall flash when any monitored door alarm is triggered at a ligature point initiated event.
    - d. The door alarm strobe shall be turned off when a user's code is entered at the keypad at the room door.
4. Local Keyswitch:
    - a. Wall mounted, shall be flush mounted or designed to be anti-ligature.
    - b. Coordinate specific location with COR and Unit Manager
    - c. Designed for momentary actuation with spring return.
5. Keypad:
    - a. Provide an LCD display notification for activation of all monitored patient bedroom doors.
    - b. Flush mounted or designed to be anti-ligature
6. Remote Monitoring Panel and Audible Alarm:
    - a. The remote monitoring panel shall allow monitoring of each patient bedroom door from the nurse's station with a visual indicator of the location of the ligature-initiated event.
    - b. The remote audible alarm will be a distinct tone not to be confused with other alarms located in the vicinity.

7. Control Panel:

- a. Panel and all elements of the alarm system shall be equipped with a dedicated battery backup system and emergency power feed for maintaining power to the control panel in the event of a power failure due to a power outage.
- b. Provide software for printing documented alarm events//

**2.20 DOOR PULLS WITH PLATES**

A. Conform to ANSI A156.6. Pull Type J401, 152 mm CTC (6 inches CTC) length by 19 mm (3/4 inches) diameter minimum with plate Type J302, 90 mm by 381 mm (3-1/2 inches by 15 inches), unless otherwise specified. Provide pull with projection of 57.2 mm (2 1/4 inches) minimum and a clearance of 38.1 mm (1 1/2 inches) minimum. Cut plates of door pull plate for cylinders, or turn pieces where required.

**2.21 PUSH PLATES**

A. Conform to ANSI A156.6. Metal, Type J302, 203 mm (8 inches) wide by 406.4 mm (16 inches) high. Provide metal Type J302 plates 102 mm (4 inches) wide by 406.4 mm (16 inches) high where push plates are specified for doors with stiles less than 203 mm (8 inches) wide. Cut plates for cylinders, and turn pieces where required.

**2.22 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.

**2.23 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.

**2.24 THRESHOLDS**

- A. Conform to ANSI A156.21, mill finish extruded aluminum, except as otherwise specified. In existing construction, thresholds shall be installed in a bed of sealant with ¼-20 stainless steel machine screws and expansion shields. In new construction, embed aluminum anchors coated with epoxy in concrete to secure thresholds. Furnish thresholds for the full width of the openings.
- B. For thresholds at elevators entrances see other sections of specifications.
- C. At exterior doors and any interior doors exposed to moisture, provide threshold with non-slip abrasive finish.
- D. Provide with miter returns where threshold extends more than 12 mm (0.5 inch) beyond face of frame.

**2.25 AUTOMATIC DOOR BOTTOM SEAL AND RUBBER GASKET FOR LIGHT PROOF OR SOUND CONTROL DOORS**

- A. Conform to ANSI A156.22. Provide mortise or under-door type, except where not practical. For mortise automatic door bottoms, provide type specific for door construction (wood or metal).

**2.26 WEATHERSTRIPS (FOR EXTERIOR DOORS)**

- A. Conform to ANSI A156.22. Air leakage shall not to exceed 0.50 CFM per foot of crack length (0.000774m<sup>3</sup>/s/m).

**2.27 MISCELLANEOUS HARDWARE**

- A. Access Doors (including Sheet Metal, Screen and Woven Wire Mesh Types): Except for fire-rated doors and doors to Temperature Control Cabinets, equip each single or double metal access door with Lock Type E07213, conforming to ANSI A156.11. Key locks as directed. Ship lock prepaid to the door manufacturer. Hinges shall be provided by door manufacturer.
- B. Cylinders for Various Partitions and Doors: Key cylinders same as entrance doors of area in which partitions and door occur, // except as otherwise specified //. Provide cylinders to operate locking devices where specified for following partitions and doors:
1. Folding doors and partitions.
  2. Wicket door (in roll-up door assemblies).
  3. Slide-up doors.
  4. Swing-up doors.
  5. Fire-rated access doors-Engineer's key set.
  6. Doors from corridor to electromagnetic shielded room.
  7. Day gate on vault door.

C. 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.

#### **2.28 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. Constant Temperature // and // Cold // Rooms in Research Departments: Research Laboratory Set.
2. Cold Room in Morgue Department: Autopsy Set.
3. Refrigerators in Canteen Department: Canteen Storage Set.
4. All Refrigerator Rooms in Main Kitchen Department: Kitchen Storage Set.
5. Chain Link Fence Gates for Electrical Substation and other Fenced Buildings or Areas: Engineer's set, except as otherwise specified.
6. Chain Link Fence Gates for Oxygen Storage Buildings: Maintenance supply set.
7. Roof Access and Scuttles: Engineer's set.
8. Hinged Wicket in Post Office Partitions: Post Office set.

C. Omit padlocks on communicating refrigerator doors.

#### **2.29 THERMOSTATIC TEMPERATURE CONTROL VALVE CABINETS**

A. Where lock is shown, equip each cabinet door (metal) with lock Type E06213, conforming to ANSI A156.36. Key locks in Key Sets approved by Contracting Officer. See mechanical drawings and specifications for location of cabinets.

B. Cabinet manufacturer shall supply the hinges, bolts and pulls. Ship locks to cabinet manufacturer for installation.

#### **2.30 HINGED WIRE GUARDS (FOR WINDOWS, DOORS AND TRANSOMS) AND WIRE PARTITION DOORS**

A. Butt hinges, type A8133 (special swaging) 100 mm by 90 mm (4 inches by 3-1/2 inches), Finish US2C.

1. 3 hinges for guards over 1060 mm (3-1/2 feet) high.

2. 2 hinges for guards less than 1060 mm (3-1/2 feet) high.

B. Conform to ANSI A156.36. Lock Type E06081 for guards and Type E06061 for partitions.

1. Keying: Except as noted otherwise, key locks like entrance door or space wherein guards and partitions are located except as otherwise specified.
2. Key locks for partitions enclosing mechanical and electrical equipment in Engineer's Set. (See detailed drawings for number of locks and butt hinges required for each guard).

### 2.31 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.
3. Pivots: Match door trim.
4. Door Closers: Factory applied paint finish. Dull or Satin Aluminum color.
5. Thresholds: Mill finish aluminum.
6. Cover plates for floor hinges and pivots: 630.
7. Other primed steel hardware: 600.

SPEC WRITER NOTE: When hardware is also required for existing buildings, include subparagraph "D".

D. //Hardware Finishes for Existing Buildings: U.S. Standard finishes shall match finishes of hardware in (similar) existing spaces // except where otherwise specified. //

E. Special Finish: Exposed surfaces of hardware for dark bronze anodized aluminum doors shall have oxidized oil rubbed bronze finish (dark bronze) finish on door closers shall closely match doors.

SPEC WRITER NOTE: When the Medical Center desires Anti-microbial coating for hand operated hardware include subparagraph "F".

F. 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.

### 2.32 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. //For new buildings locate hardware on doors at heights specified below, with all hand-operated hardware centered within 864 mm (34 inches) to 1200 mm (48 inches), unless otherwise noted: //
- C. Hardware Heights from Finished Floor:
- 1.Exit devices centerline of strike (where applicable) 1024 mm (40-5/16 inches).
  - 2.Locksets and latch sets centerline of strike 1024 mm (40-5/16 inches).
  - 3.Deadlocks centerline of strike 1219 mm (48 inches).
  - 4.Hospital arm pull 1168 mm (46 inches) to centerline of bottom supporting bracket.
  - 5.Centerline of door pulls to be 1016 mm (40 inches).
  - 6.Push plates and push-pull shall be 1270 mm (50 inches) to top of plate.
  - 7.Push-pull latch to be 1024 mm (40-5/16 inches) to centerline of strike.
  - 8.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 // except security bedroom, bathroom and anteroom doors which shall have closer installed parallel arm on exterior side of doors. //. At exterior doors, closers shall be mounted on interior side. Where closers are mounted on doors they shall be mounted with hex nuts and bolts; foot shall be fastened to frame with machine screws. Door opening force shall not exceed 22.2 N (5 pounds) maximum in accordance with ABAAS.//Measure and adjust opening force for all doors equipped with closers.////

SPEC WRITER NOTE: Schedule special hinge sizes for special doors and doors over 1200 mm (4 feet) wide under "Hardware Sets". See Article "Miscellaneous" for hinges for hinged wire guards.

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.

SPEC WRITER NOTE: Do not permit reuse of existing hinges unless type and condition of these hinges are verified. Existing non-ball bearing hinges shall be replaced with ball bearing type when new door closer is specified for door.

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:

<b>Door Description</b>	<b>Number butts</b>
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 Medical 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.

### **3.3 FINAL INSPECTION**

A. Installer to provide letter to VA Resident/Project Engineer 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

SPEC WRITER NOTE: For hardware set numbering philosophy and set selection by functional space type see VA Program Guide PG 18-14 "Room Finishes, Door & Hardware Schedule".

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)

C. INTERIOR SINGLE DOORS

HW-1

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	-
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 Floor Stop	L02121 x 3 FASTENERS
3 Silencers	L03011

HW-1A

<u>Each Door to Have:</u>	<u>RATED</u>
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

1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Seals	R0Y164

## HW-1B

<u>Each Door to Have:</u>	<u>NON-RATED/RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X SWING-CLEAR X ADJUSTA-SCREWS
1 Hospital Latch	F01 x PADDLES POINTING DOWN
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Set Seals	ROY164

NO CLOSER REQUIRED DUE TO EXEMPTION FOR PATIENT ROOM DOORS.

## HW-1C

THIS SET NOT USED.

## HW-1D

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X SWING-CLEAR X ADJUSTA-SCREWS
1 Hospital Latch	F01 x PADDLES POINTING DOWN
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Mop Plate	J103
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
3 Silencers	L03011

## HW-1E

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Hospital Latch	F01 x PADDLES POINTING DOWN
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Set Self-Adhesive Seals	ROY154

## HW-1F

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	-
1 Latchset	F04
1 Kick Plate	J102
1 Wall Stop	L02101 CONVEX
3 Silencers	L03011

## HW-1G

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Latchset	F01
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Wall Stop	L02101 CONVEX
3 Silencers	L03011
1 Coat Hook	L03121

## HW-1H

<u>Each Dwarf Door to Have:</u>	<u>NON-RATED</u>
1 Gate Spring Pivot Hinge	K13311
1 Door Bolt	L04151
1 Wall Stop	L02101 CONVEX
2 Silencers	L03021

## HW-1J

<u>Each [MHO] Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Latchset	F01
1 Closer	C02011/C02021
1 Heavy-Duty Armor Plate	J101 x 3.175 MM (0.125 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Magnetic Holder	C00011 TRI-VOLTAGE
1 Set Self-Adhesive Seals	R0Y154

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

HW-1KEach Door to Have:

1 Continuous Hinge	<u>NON-RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Hospital Latch	F01 x PADDLES POINTING DOWN
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-1LEach Door to Have:

1 Continuous Hinge	<u>NON-RATED</u> -
1 Latchset	F04
1 Kick Plate	J102
1 Wall Stop	L02101 CONVEX
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-1MEach Door to Have:

1 Floor Closer	<u>NON-RATED</u> C06011
2 Push Plates	J302
2 Kick Plates	J102
2 Edge Guard (@ Wood Doors)	J209M / J212 (VERIFY)
1 Overhead Stop	C01541-ADJUSTABLE

HW-1N

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	-
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 Floor Stop	L02121 x 3 FASTENERS
3 Silencers	L03011

HW-IP

<u>Each Lead-Lined Door to Have:</u>	<u>NON-RATED</u>
1 Floor Closer	C6062
2 Push Plates	J302 8" x 16"
2 Kick Plates	J102
2 Edge Guard (@ Wood Doors)	J209M / J212 (VERIFY)
1 Overhead Stop	C01541-ADJUSTABLE

HW-1Q

<u>Each Door to Have:</u>	<u>RATED/NON-RATED</u>
1 Continuous Hinge	-
1 Latchset	F04
1 Kick Plate	J102
1 Closer (@ rated doors)	C02011/C02021
1 Wall Stop	L02101 CONVEX
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-1R

<u>Each Door to Have:</u>	<u>RATED/NON-RATED</u>
1 Continuous Hinge	-
1 Latchset	F04
1 Kick Plate	J102
1 Closer (@ rated doors)	C02011/C02021
1 Wall Stop	L02101 CONVEX
1 Set Self-Adhesive Seals	ROY154

HW-2

<u>Each Door to Have:</u>	<u>RATED/NON-RATED</u>
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 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154
STONE THRESHOLD BY OTHER TRADES.	

HW-2A

<u>Each [ADO] Door to Have:</u>	<u>RATED/NON-RATED</u>
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Keyed Privacy Indicator Lock	F13 x OCCUPANCY INDICATOR
1 Electric Strike	E09391 (FAIL-SECURE), 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154
AUTOMATIC DOOR OPERATOR AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS. STONE THRESHOLD BY OTHER TRADES.	

HW-2B

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Center Pivot Set	C07042
1 Privacy Lock	F02 X OCCUPANCY INDICATOR
1 Rescue Stop	A1882
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Wall Stop	L02101 CONVEX
STONE THRESHOLD BY OTHER TRADES.	

HW-2C

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Privacy Lock	F02-MOD X OCCUPANCY INDICATOR
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Wall Stop	L02101 CONVEX
3 Silencers	L03011
STONE THRESHOLD BY OTHER TRADES.	

HW-2DEach Door to Have:

Hinges	<u>RATED</u> QUANTITY & TYPE AS REQUIRED
1 Privacy Lock	F02-MOD X OCCUPANCY INDICATOR
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Wall Stop	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154
STONE THRESHOLD BY OTHER TRADES.	

HW-2EEach Door to Have:

1 Continuous Hinge	<u>RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Hospital Privacy Latch	F02
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Mop Plate (@ Inswing Doors)	J103
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Set Self-Adhesive Seals	R0Y154
STONE THRESHOLD BY OTHER TRADES.	

HW-2FEach Door to Have:

Hinges	<u>NON-RATED</u> QUANTITY & TYPE AS REQUIRED
1 Privacy Lock	F02-MOD X OCCUPANCY INDICATOR
1 Wall Stop	L02101 CONVEX
3 Silencers	L03011
1 Coat Hook	L03121

HW-2GEach Door to Have:

	<u>RATED/NON-RATED</u>
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 Floor Stop	L02121 x 3 FASTENERS
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154
STONE THRESHOLD BY OTHER TRADES.	

HW-2HEach Door to Have:

	<u>NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Hospital Privacy Latch	F02 X OCCUPANCY INDICATOR
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
3 Silencers	L03011
STONE THRESHOLD BY OTHER TRADES.	

HW-2JEach Door to Have:

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Privacy Lock	F02-MOD X OCCUPANCY INDICATOR
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Wall Stop	L02101 CONVEX
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154
STONE THRESHOLD BY OTHER TRADES.	

HW-2KEach Door to Have:

1 Continuous Hinge  
 1 Hospital Privacy Latch  
 1 Kick Plate  
 1 Mop Plate (@ Inswing Doors)  
 1 Edge Guard (@ Wood Doors)  
 1 Overhead Stop  
 1 Auto Door Bottom  
 2 Set Self-Adhesive Seals  
 STONE THRESHOLD BY OTHER TRADES.

NON-RATED

x INTEGRAL HINGE GUARD CHANNEL  
 X ADJUSTA-SCREWS  
 F02 X OCCUPANCY INDICATOR  
 J102  
 J103  
 J208M / J211 (VERIFY), CUT: HARDWARE  
 C01541-ADJUSTABLE  
 R0Y346 - HEAVY DUTY  
 R0Y154

HW-3Each Door to Have:

Hinges  
 1 Office Lock  
 1 Closer  
 1 Kick Plate  
 1 Floor Stop  
 1 Set Self-Adhesive Seals

RATED

QUANTITY & TYPE AS REQUIRED  
 F04  
 C02011/C02021  
 J102  
 L02121 x 3 FASTENERS  
 R0Y154

HW-3A

THIS SET NOT USED.

HW-3BEach Door to Have:

Hinges  
 1 Office Lock  
 1 Closer  
 1 Floor Stop  
 1 Door Viewer  
 1 Set Self-Adhesive Seals

NON-RATED/RATED

QUANTITY & TYPE AS REQUIRED  
 F04  
 C02011/C02021  
 L02121 x 3 FASTENERS  
 L03221 - 190° (VIEW INTO CORRIDOR)  
 R0Y154

OMIT VIEWER IF DOOR PROVIDED WITH VISION LITE.

HW-3C

THIS SET NOT USED.

HW-3D

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Office Lock	F04
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-3E

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Office Lock	F04
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154
1 Coat Hook	L03121

OMIT COAT HOOK WHERE GLASS LITE PREVENTS INSTALLATION.

HW-3F

<u>Each Door to Have:</u>	<u>RATED/NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Office Lock	F04
1 Closer	C02011/C02021 @ RATED DOOR
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-3G

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Office Lock	F04
1 Floor Stop	L02121 x 3 FASTENERS
1 Coat Hook	L03121
1 Door Viewer (Mental Health Only)	L03221 90 degree (VIEW INTO CORRIDOR)
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

OMIT VIEWER IF DOOR PROVIDED WITH VISION LITE.  
OMIT COAT HOOK WHERE GLASS LITE PREVENTS INSTALLATION.

HW-3H

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Office Lock	F04
1 Closer	CO2011/CO2021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Sets Self-Adhesive Seals	R0Y154

HW-3J

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Office Lock	F04
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Sound/Light Seals	R0Y264/R0Y255

HW-4Each Door to Have:

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Classroom Lock	F05
1 Overhead Stop	C04541
3 Silencers	L03011

HW-4AEach [ADO] Door to Have:

	<u>RATED</u>
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Classroom Lock	F05
1 Electric Strike	E09311 (FAIL-SECURE), 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103 @ TOILET ROOMS ONLY
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

AUTOMATIC DOOR OPERATOR AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFER FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

HW-4B

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	-
1 Public Restroom Lock	F09
1 Closer	C02011/C02021
1 Closer	CO2051/CO2061
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	ROY346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	ROY154

PROVIDE NON-HOLD-OPEN CLOSER AT TOILET ROOMS.

STONE THRESHOLD BY OTHER TRADES.

HW-4C

<u>Each Door to Have:</u>	<u>NONRATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Hospital Utility Lock	F09 x PADDLES POINTING DOWN
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	ROY346 - HEAVY DUTY
1 Set Seals	ROY164

HW-4D

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Classroom Lock	F05
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Mop Plate (@ Inswing Doors)	J103
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154

HW-4E

<u>Each Door to Have:</u>	<u>NON-RATED/RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Utility Lock	F09
1 Closer (@ rated doors)	C02011/C02021
1 Closer (@ non-rated doors)	C02051/C02061
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-4F

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Utility Lock	F09
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154

HW-4G

<u>Each Door to Have:</u>	<u>RATED/NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED

1 Utility Lock	F09
1 Closer (@ Rated Doors)	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4H

<u>Each [MHO] Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Classroom Lock	F05
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Magnetic Holder	C00011 TRI-VOLTAGE
1 Set Self-Adhesive Seals	R0Y154

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

HW-4J

<u>Each Door to Have:</u>	<u>RATED/NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Utility Lock	F09
1 Closer (@ Rated Doors)	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-4K

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Utility Lock	F09
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4LEach Door to Have:

1 Continuous Hinge	<u>NON-RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Classroom Lock	F05
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Sound/Light Seals	R0Y264/R0Y255

HW-4MEach Door to Have:

1 Continuous Hinge	<u>NON-RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Classroom Hospital Lock	F05 x PADDLES POINTING DOWN
1 Heavy-Duty Armor Plate	J101 x 3.175 MM (0.125 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4NEach Door to Have:

1 Continuous Hinge	<u>NON-RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Utility Lock	F09
1 Closer (@ rated doors)	C02011/C02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-4PEach Door to Have:

1 Continuous Hinge  
 1 Classroom Hospital Lock  
 1 Armor Plate  
 1 Edge Guard (@ Wood Doors)  
 1 Overhead Stop  
 1 Threshold  
 1 Auto Door Bottom  
 2 Sets Self-Adhesive Seals

NON-RATED

x INTEGRAL HINGE GUARD CHANNEL  
 X ADJUSTA-SCREWS  
 F05 x PADDLES POINTING DOWN  
 J101 x 1.275 MM (0.050 INCH) THICKNESS  
 J208M / J211 (VERIFY), CUT: HARDWARE  
 C01541-ADJUSTABLE  
 J32300 x 57 MM WIDTH (2-1/4 INCHES)  
 R0Y346 - HEAVY DUTY  
 R0Y154

HW-4QEach Door to Have:

1 Pivot Set  
 1 Intermediate Pivot  
 1 Utility Hospital Lock  
 1 Armor Plate  
 2 Edge Guard (@ Wood Doors)  
 1 Overhead Stop  
 1 Set Self-Adhesive Seal

NON-RATED

C07162 x 454KG (1000 LBS) WEIGHT  
 CAPACITY  
 C07311  
 F09 x LEAD-LINED x PADDLES POINTING  
 DOWN  
 J101 x 1.275 MM (0.050 INCH) THICKNESS  
 J208M / J211 (VERIFY), CUT: HARDWARE  
 C01541-ADJUSTABLE  
 R0Y154

HW-4REach [ADO] Door to Have:RATED

1 Continuous Hinge

x INTEGRAL HINGE GUARD CHANNEL  
 X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER  
 X IN-HINGE ACCESS PANEL

1 Classroom Lock

F05

1 Electric Strike

E09311 (FAIL-SECURE), 24VDC

1 Power Supply

REGULATED, FILTERED, 24VDC, AMPERAGE  
 AS REQUIRED

1 Kick Plate

J102

1 Mop Plate (@ Inswing Doors)

J103 @ TOILET ROOMS ONLY

1 Edge Guard (@ Wood Doors)

J208M / J211 (VERIFY), CUT: HARDWARE

1 Floor Stop

L02121 x 3 FASTENERS

1 Threshold

J32300 x 57 MM WIDTH (2-1/4 INCHES)

1 Auto Door Bottom

R0Y346 - HEAVY DUTY

2 Set Self-Adhesive Seals

R0Y154

AT TOILET ROOMS, OMIT METAL THRESHOLD; STONE THRESHOLD BY OTHER TRADES.  
 AUTOMATIC DOOR OPERATOR AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR  
 OPERATORS.

OWER TRANSFER FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS  
 PROVIDED BY SECTION 08 71 13).

HW-4SEach Door to Have:NON-RATED

1 Continuous Hinge

x INTEGRAL HINGE GUARD CHANNEL  
 X ADJUSTA-SCREWS

1 Classroom Lock

F05

1 Heavy-Duty Armor Plate

J101 x 3.175 MM (0.125 INCH) THICKNESS

1 Edge Guard (@ Wood Doors)

J208M / J211 (VERIFY), CUT: HARDWARE

1 Floor Stop

L02121 x 3 FASTENERS

1 Auto Door Bottom

R0Y346 - HEAVY DUTY

2 Sets Self-Adhesive Seals

R0Y154

HW-4T

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Classroom Hospital Lock	F05 x PADDLES POINTING DOWN
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Set Self-Adhesive Seals	R0Y154

HW-4U

<u>Each Door to Have:</u>	<u>NON-RATED/RATED</u>
1 Continuous Hinge	-
1 Public Restroom Lock	F09
1 Closer	C02011/C02021
1 Closer	CO2051/CO2061
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154

PROVIDE NON-HOLD-OPEN CLOSER AT TOILET ROOMS.

STONE THRESHOLD BY OTHER TRADES.

HW-4V

<u>Each Lead-Lined Door to Have:</u>	<u>NON-RATED</u>
1 Pivot Set	C07162 x 454KG (1000 LBS) WEIGHT CAPACITY
1 Intermediate Pivot	CO7311
1 Utility Hospital Lock	F09 x LEAD-LINED x PADDLES POINTING DOWN
1 Closer	CO2011/CO2021 x METAL LEAD-LINED COVER
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Holder-Stop	C01541-ADJUSTABLE
1 Set Self-Adhesive Seal	R0Y154

HW-4XEach [ADO] Lead-Lined Door to Have: NON-RATED

1 Pivot Set	C07162 x 454KG (1000 LBS) WEIGHT CAPACITY
1 Intermediate Transfer Pivot	CO7311 x 4 WIRE TRANSFER
1 Utility Hospital Lock	F09 x LEAD-LINED x PADDLES POINTING DOWN
1 Electric Unlatch Strike	E09321
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Set Self-Adhesive Seal	R0Y154

POWER TRANSFER PIVOT IS FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

AUTO DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13.

HW-4YEach [ADO] Door to Have: NON-RATED

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Utility Hospital Lock	F09 x PADDLES POINTING DOWN
1 Electric Unlatch Strike	E09321
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Set Self-Adhesive Seals	R0Y154

POWER TRANSFER PIVOT IS FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

AUTOMATIC DOOR OPERATOR AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

HW-5

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Closer	C02011/C02021
1 Kick Plate	J102 (@ STORAGE, EVM, & HAC ROOMS ONLY)
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-5A

THIS SET NOT USED.

HW-5B

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-5C

THIS SET NOT USED.

HW-5D

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Kick Plate	J102 (@ STORAGE, EVM, & HAC ROOMS ONLY)
1 Floor Stop (@ Inswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Outswing Doors)	L02101 CONVEX
3 Silencers	L03011

HW-5EEach Door to Have:

1 Continuous Hinge  
  
1 Storeroom Lock  
  
1 Armor Plate  
1 Edge Guard (@ Wood Doors)  
1 Floor Stop  
1 Set Self-Adhesive Seals

NON-RATED

x INTEGRAL HINGE GUARD CHANNEL  
X ADJUSTA-SCREWS  
F13-MOD x RIGID OUTSIDE LEVER x KEY  
RETRACTS DEADBOLT AND LATCHBOLT  
J101 x 3.125 MM (0.125 INCH) THICKNESS  
J208M / J211 (VERIFY), CUT: HARDWARE  
L02121 x 3 FASTENERS  
R0Y154

HW-5FEach Door to Have:

Hinges  
1 Storeroom Lock  
1 Closer (@ Rated Doors)  
1 Heavy-Duty Armor Plate  
1 Edge Guard (@ Wood Doors)  
1 Floor Stop  
1 Set Self-Adhesive Seals

RATED

QUANTITY & TYPE AS REQUIRED  
F07  
C02011/C02021  
J101 x 3.175 MM (0.125 INCH) THICKNESS  
J208M / J211 (VERIFY), CUT: HARDWARE  
L02121 x 3 FASTENERS  
R0Y154

HW-5GEach Door to Have:

Hinges  
1 Storeroom Lock  
1 Kick Plate  
1 Floor Stop  
1 Threshold  
1 Auto Door Bottom  
2 Sets Self-Adhesive Seals

NON-RATED

QUANTITY & TYPE AS REQUIRED  
F07  
J102  
L02121 x 3 FASTENERS  
J32300 x 57 MM WIDTH (2-1/4 INCHES)  
R0Y346 - HEAVY DUTY  
R0Y154

HW-5HEach Dutch Door to Have:

Hinges	NON-RATED
	QUANTITY & TYPE AS REQUIRED
1 Dutch Door Bolt	L04161-4" @ Top Leaf
1 Storeroom Lock	F07 @ Bottom Leaf
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS @ Bottom Leaf
1 Wall Stop	L02101 @ Bottom Leaf
1 Set Self-Adhesive Seals	R0Y154

HW-5JEach Door to Have:

Hinges	RATED
	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-5KEach Door to Have:

1 Continuous Hinge	RATED
	x INTEGRAL HINGE GUARD CHANNEL
	X ADJUSTA-SCREWS
1 Storeroom Lock	F07
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-5LEach Door to Have:

1 Continuous Hinge	<u>NON-RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Security Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154

HW-6Each Door to Have:

Hinges	<u>RATED</u> QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 1 F13 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02011/C02021
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154

HW-6AEach Door to Have:

1 Continuous Hinge	<u>RATED</u> x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
1 Exit Device	TYPE 1 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154/ROY155

SPEC WRITER NOTE: MHO & EMCH sets  
require coordination with electrical  
/fire alarm on drawings

HW-6B

<u>Each [MHO] Door to Have:</u>	<u>RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Exit Device	TYPE 1 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Magnetic Holder	C00011 TRI-VOLTAGE
1 Set Self-Adhesive Seals	R0Y154

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

HW-6C

<u>Each Door to Have:</u>	<u>NON-RATED/RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Exit Device	TYPE 1 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

SPEC WRITER NOTE: Coordinate ADO doors  
with section 08 71 13 AUTOMATIC DOOR  
OPERATORS

HW-6D

<u>Each [ADO] Integrated Door to Have:</u>	<u>RATED</u>
1 Key Cylinder	TYPE AS REQUIRED

ALL HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

AUTO DOOR OPERATOR AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

HW-6E

Each Door to Have:

NON-RATED

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Exit Device	TYPE 1 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154

HW-6F

Each [ADO] Door to Have:

NON-RATED/RATED

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANELS
1 Elec. Exit Device	TYPE 1 F08 LEVER (E04)
1 Key Cylinder	TYPE AS REQUIRED
1 Power Supply	BY EXIT DEVICE MFR. FOR E04 FUNCTION
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154

POWER TRANSFER **SHARED BY ELECTRIC PANIC AND** RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

AUTO DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13.

HW-6G

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 1 F13 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02011/C02021
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-7

Each Motorized Roll-up Door to Have: NON-RATED  
 1 Key Cylinder (for keyswitch) TYPE AS REQUIRED  
 BALANCE OF HARDWARE BY SECTION 08 33 00, COILING DOORS AND GRILLES

HW-7A

Each Special Door to Have: NON-RATED  
 1 Padlock TYPE AS REQUIRED PER 08 71 00 2.27.  
 BALANCE OF HARDWARE BY DOOR MANUFACTURER.

HW-7B

<u>Each RF Shielded Door to Have:</u>	<u>NON-RATED</u>
1 Pivot Set	C07162 x 454KG (1000 LBS) WEIGHT CAPACITY
1 Intermediate Pivot	C07311
1 Utility Hospital Lock	F09 x LEAD-LINED x PADDLES POINTING DOWN
1 Key Cylinder	TYPE AS REQUIRED
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Overhead Stop	C01541-ADJUSTABLE
1 Set Self-Adhesive Seal	ROY154

D. **INTERIOR PAIRS OF DOORS**HW-8

Each [MHO] Pair Integrated Doors to Have: RATED  
ALL HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-8A

<u>Each Aluminum Storefront Pair to Have:</u>	<u>NON-RATED</u>
2 Floor Closers	C06041
2 Intermediate Pivots	C07321
2 Push/Pull Bar Sets	J505 - 305 MM (12 INCH) CENTER-TO-CENTER PULL
2 Overhead Stops	C01541-ADJUSTABLE

HW-8B

<u>Each Pair to Have:</u>	<u>NON-RATED</u>
2 Continuous Hinge	-
2 Push Plate	J304 8" x 16"
2 Hospital Grip	J401
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103
2 Closer	C02011/C02021
2 Floor Stop	L02121 x 3 FASTENERS
2 Silencers	L03011

HW-8C

<u>Each Double-Acting Pair to Have:</u>	<u>NON-RATED</u>
2 Double-Acting Floor Closers	C06011
4 Push Plates	J304 8" x 16"
4 Heavy-Duty Armor Plates	J101 x 3.175 MM (0.125 INCH) THICKNESS
4 Edge Guard (@ Wood Doors)	J209P / J212 (VERIFY)
2 Overhead Holders	C01511-ADJUSTABLE

HW-8D

Each [ADO] Aluminum Storefront Pair to Have:      NON-RATED

2 Pivot Sets	C07162
2 Intermediate Transfer Pivots	C07321 x 4-WIRES
2 Intermediate Pivots	C07321
2 Push/Pull Bar Sets	J505 - 305 MM (12 INCH) CENTER-TO-CENTER PULL
2 Overhead Stops	C01541-ADJUSTABLE

AUTO DOOR OPERATORS, CONTROLS, AND REACTIVATION SENSORS BY SECTION 08 71 13.11.

POWER TRANSFERS FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

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

HW-8E

Each [ADO] Pair to Have:

NON-RATED

2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFERS X IN-HINGE ACCESS PANEL
2 Push Plate	J304 8" x 16"
2 Hospital Grip	J401
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stop	L02121 x 3 FASTENERS
2 Silencers	L03011

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFERS FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

HW-8FEach [ADO] Pair to Have:NON-RATED

2 Continuous Hinges	X INTEGRAL HINGE GUARD CHANNEL
	X ADJUSTA-SCREWS x 4-THRUWIRE
	TRANSFERS
	X IN-HINGE ACCESS PANEL
2 Push Plate	J304 8" x 16"
2 Hospital Grip	J401
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFERS FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

HW-9

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

HW-10Each Pair to Have:NONRATED

2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Lock	F05
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02011/C02021
2 Heavy-Duty Armor Plates	J101 x 3.175 MM (0.125 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154

INSTALL LOCK TRIM PROTECTOR BAR ON PUSH SIDE OF ACTIVE LEAF TO PROTECT  
LEVER TRIM.

HW-10AEach [ADO] Pair to Have:NON-RATED

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS X 4-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Lock	F05
1 Electric Unlatch Strike	E09321 (FAIL SECURE)
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFER **SHARED BY ELECTRIC STRIKE AND** RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

HW-10B

<u>Each Pair to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Hospital Lock	F05 x PADDLES POINTING DOWN
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
1 Closers (@ rated doors)	C02011/C02021
2 Heavy-Duty Armor Plates	J101 x 3.175 MM (0.125 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS

INSTALL LOCK TRIM PROTECTOR BAR ON PUSH SIDE OF ACTIVE LEAF TO PROTECT LEVER TRIM.

HW-10C

<u>Each Pair to Have:</u>	<u>NON-RATED</u>
2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Utility Lock	F09
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Kick Plates	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-10D

<u>Each Pair to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Lock	F05
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Kick Plates	J102
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-10EEach Lead Lined Pair to Have:

2 Pivot Sets	<u>NON-RATED</u> C07162 x 454KG (1000 LBS) WEIGHT CAPACITY
2 Intermediate Pivots	CO7311
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT x LEAD-LINED
1 Classroom Lock	F05 x LEAD-LINED x PADDLES POINTING DOWN
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS X LEAD-LINED
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
4 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-10FEach Pair to Have:

2 Continuous Hinges	<u>NON-RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Hospital Lock	F05 x PADDLES POINTING DOWN
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Heavy-Duty Armor Plates	J101 x 3.175 MM (0.125 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

INSTALL LOCK TRIM PROTECTOR BAR ON PUSH SIDE OF ACTIVE LEAF TO PROTECT  
LEVER TRIM.

HW-10GEach Pair to Have:

2 Continuous Hinges

1 Set Auto Flush Bolts

1 Classroom Lock

1 Overlapping Astragal with  
Self-Adhesive Seal

2 Heavy-Duty Armor Plates

1 Lock Trim Protector Bar

2 Edge Guard (@ Wood Doors)

2 Floor Stops

1 Threshold

2 Auto Door Bottom

2 Sets Self-Adhesive Seals

NON-RATED

x INTEGRAL HINGE GUARD CHANNEL

X ADJUSTA-SCREWS

TYPE 25 LESS BOTTOM BOLT

F05

R0Y634 x R0Y154 x THRU-BOLTS

J101 x 3.175 MM (0.125 INCH) THICKNESS

R111LPB-630 (ROCKWOOD), OR EQUAL

J208M / J211 (VERIFY), CUT: HARDWARE

L02121 x 3 FASTENERS

J32300 x 57 MM WIDTH (2-1/4 INCHES)

R0Y346 - HEAVY DUTY

R0Y154

INSTALL LOCK TRIM PROTECTOR BAR ON PUSH SIDE OF ACTIVE LEAF TO PROTECT  
LEVER TRIM.

HW-10HEach [ADO] Lead-Lined Pair to Have: RATED/NON-RATED

2 Bottom Pivots

C07162 LESS TOP PIVOT x 454KG (1000  
LBS) WEIGHT CAPACITY

1 Intermediate Pivot

C07311 (MIDDLE OF ACTIVE LEAF)

1 Intermediate Transfer Pivot	CO7311 x 4 WIRE TRANSFER (MIDDLE OF INACTIVE LEAF)
2 Intermediate Transfer Pivot	CO7311 x 4 WIRE TRANSFER (NEAR TOP OF EACH LEAF)
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT X LEAD-LINED
1 Hospital Utility Lock	F09 x PADDLES POINTING DOWN X LEAD-LINED
1 Electric Unlatch Strike	E09321 (FAIL SECURE) (LEAD-LINED)
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	ROY634 x ROY154 x THRU-BOLTS X LEAD-LINED
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
4 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Overhead Stops	C01541-ADJUSTABLE
1 Set Self-Adhesive Seals	ROY154

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFER PIVOTS NEAR TOP OF EACH DOOR FOR RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

HW-10J

<u>Each [ADO] Pair to Have:</u>	<u>RATED/NON-RATED</u>
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Hospital Lock	F05 x PADDLES POINTING DOWN
1 Electric Unlatch Strike	E09321 (FAIL-SECURE)
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Overhead Stops	C01541-ADJUSTABLE
1 Set Self-Adhesive Seals	R0Y154
AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.	
POWER TRANSFERS <b>SHARED BY ELECTRIC STRIKE AND</b> RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).	
*AT WOOD PAIRS RATED 45-MINUTES OR MORE, PROVIDE ELECTRIC STRIKE 310-2- 3/4 (FOLGER ADAM OR EQUAL) IN LIEU OF SPECIFIC UNLATCH STRIKE.	

HW-10KEach [ADO] Pair to Have:RATED/NON-RATED

1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Lock	F05
1 Electric Unlatch Strike	E09321 (FAIL-SECURE)
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFER **SHARED BY ELECTRIC STRIKE AND** RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

\*AT WOOD PAIRS RATED 45-MINUTES OR MORE, PROVIDE ELECTRIC STRIKE 310-2-3/4 (FOLGER ADAM OR EQUAL) IN LIEU OF SPECIFIC UNLATCH STRIKE.

HW-10LEach Pair to Have:

<u>Each Pair to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Lock	F05
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02011/C02021
2 Heavy-Duty Armor Plates	J101 x 3.175 MM (0.125 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-10MEach Pair to Have:

<u>Each Pair to Have:</u>	<u>NON-RATED</u>
2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Utility Lock	F09
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Kick Plates	J102
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-11Each Pair to Have:

	<u>RATED/NR</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Storeroom Lock	F07
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02011/C02021
2 Kick Plates	J102 (@ STORAGE ROOMS ONLY)
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-11AEach Pair to Have:

	<u>NON-RATED</u>
2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Set Auto Flush Bolts	TYPE 25
1 Security Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Armor Plates	101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-11BEach Pair to Have:RATED

<u>Each Pair to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25
1 Storeroom Lock	F07
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02011/C02021
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-11CEach Pair to Have:RATED/NR

<u>Each Pair to Have:</u>	<u>RATED/NR</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Storeroom Lock	F07
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS C02011/C02021
2 Kick Plates	J102 (@ STORAGE ROOMS ONLY)
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154

HW-12

<u>Each Pair to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 7 or 8 F01
1 Exit Device	TYPE 7 or 8 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Set Meeting Stile Astragals	ROY834
2 Closers	C02011/C02021
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154

HW-12A

Each [MHO] Pair Integrated Doors to Have: RATED

ALL HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-12B

Each [ADO] Pair Integrated Doors to Have: RATED

1 Key Cylinder TYPE AS REQUIRED  
 BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES  
 AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC  
 DOOR OPERATORS.

HW-12C

Each [MHO] Pair Integrated Double Egress Doors to Have: RAT

ALL HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-12D

Each [ADO] Pair Integrated Double Egress Doors to Have: RATED

ALL HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES  
 AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC  
 DOOR OPERATORS.

HW-12EEach Pair to Have:RATED

2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
1 Exit Device	TYPE 7 or 8 F01
1 Exit Device	TYPE 7 or 8 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Set Meeting Stile Astragals	R0Y834
2 Closers	C02011/C02021
2 Kick Plates	J102
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
2 Door Bottom	R0Y434 x NYLON BRUSH INSERT
2 Set Self-Adhesive Seals	R0Y154

HW-12FEach Pair to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 7 or 8 F01
1 Exit Device	TYPE 7 or 8 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Set Meeting Stile Astragals	R0Y834
2 Closers	C02021
2 Floor Stops	L02121 x 3 FASTENERS
2 Door Bottom	R0Y434 x NYLON BRUSH INSERT
2 Sets Self-Adhesive Seals	R0Y154

HW-12GEach Pair to Have:NON-RATED

2 Continuous Hinges	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Exit Device	TYPE 7 or 8 F01
1 Exit Device	TYPE 7 or 8 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Set Meeting Stile Astragals	R0Y834
2 Closers	C02051/C02071
2 Kick Plates	J102
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-12HEach [ADO] Pair to Have:NON-RATED

2 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Elec. Exit Device	TYPE 7 or 8 F01 (E04)
1 Elec. Exit Device	TYPE 7 or 8 F08 LEVER (E04)
1 Key Cylinder	TYPE AS REQUIRED
1 Power Supply	BY EXIT DEVICE MFR. FOR E04 FUNCTION
1 Set Meeting Stile Astragals	R0Y834
2 Kick Plates	J102
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
2 Auto Door Bottoms	R0Y346 -HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

POWER TRANSFERS **SHARED BY ELECTRIC PANIC AND** RE-ACTIVATION SENSOR WIRING  
(RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).  
AUTO DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13.

HW-12J

<u>Each Pair to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 7 or 8 F01
1 Exit Device	TYPE 7 or 8 F13 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Set Meeting Stile Astragals	R0Y834
2 Closers	C02011/C02021
2 Floor Stops	L02121 x 3 FASTENERS
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-13

Each [ADO] Bi-Parting Automatic Pair to Have:      NON-RATED  
 ALL HARDWARE BY SECTION 08 71 13.

E. **EXTERIOR SINGLE DOORS**HW-E1

<u>Each Door to Have:</u>	<u>NON-RATED</u>
1 Continuous Hinge	
1 Entry Lock	F11
1 Latch Protector (outswing dr)	
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTNERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E2Each Door to Have:

1 Continuous Hinge	
1 Classroom Lock	F05
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTNERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E3Each Door to Have:

Hinges	<u>RATED</u> QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 Latch Protector (outswing dr)	
1 Closer	C02011/C02021
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Armor Plate	J101 x 3.125 MM (0.125 INCH) THICKNESS
1 Overhead Holder	C01511-ADJUSTABLE
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E4Each Door to Have:NON-RATED

1 Continuous Hinge	
1 Anti-Vandal Pull	
1 Exit Device	TYPE 1 F03 LESS TRIM
1 Latch Protector	(outswing dr.)
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02011
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTNERS
1 Threshold	J32120 x SILICONE GASKET
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E5Each Roll-up Door to Have:NON-RATED

1	Padlock or 2 Cylinders
	TYPE AS REQUIRED

BALANCE OF HARDWARE BY SECTION 08 33 00, COILING DOORS AND GRILLES

F. **EXTERIOR PAIRS OF DOORS**HW-E6Each Pair to Have:NON-RATED

2 Continuous Hinge	
1 Set Auto Flush Bolts	TYPE 25
1 Dust Proof Strike	L04021
1 Entry Lock	F11
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
1 Coordinator	TYPE 21A
2 Closer	C02011/C02021
2 Kick Plate	J102
2 Floor Stop	L02121 x 3 FASTNERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
2 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E7

<u>Each Pair to Have:</u>	<u>NON-RATED</u>
2 Continuous Hinge	
1 Set Auto Flush Bolts	TYPE 25
1 Dust Proof Strike	L04021
1 Classroom Lock	F05
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
1 Coordinator	TYPE 21A
2 Closer	C02011/C02021
2 Kick Plate	J102
2 Floor Stop	L02121 x 3 FASTNERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
2 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E8

<u>Each Pair to Have:</u>	<u>NON-RATED</u>
2 Continuous Hinge	
1 Set Auto Flush Bolts	TYPE 25
1 Dust Proof Strike	L04021
1 Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
1 Coordinator	TYPE 21A
2 Closer	C02011/C02021
2 Armor Plate	J101 x 3.125 MM (0.125 INCH) THICKNESS
2 Floor Stop	L02121 x 3 FASTNERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
2 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E9

<u>Each Door to Have:</u>	<u>NON-RATED</u>
2 Continuous Hinge	
1 Exit Device	TYPE 8 F01
1 Exit Device	TYPE 8 F12 LESS PULL
1 Key Cylinder	TYPE AS REQUIRED
2 Latch Protectors	(outswing dr.)
1 Set Meeting Stile Astragals	R0Y834
2 Closer	C02011
2 Kick Plate	J102
2 Floor Stop	L02121 x (3) FASTNERS
1 Threshold	J32120 x SILICONE GASKET
2 Door Sweep	R0416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-E10

<u>Each Sliding Door to Have:</u>	<u>NON-RATED</u>
1 Set Track Hardware	TYPE REQUIRED FOR DOOR MATERIAL, WEIGHT, AND MOUNTING DETAILS (COMPLETE WITH TRACK, TRACK BRACKETS, HANGERS, GUIDES, BUMPERS, AND INTERNAL TRACK STOPS)
2 Pulls	TYPE AS REQUIRED
1 Sliding Door Lock	E8281/E8291 (SLIDING DOOR LOCK)
2 Cylinder (for sliding dr lock)	TYPE AS REQUIRED

G. **EXTERIOR SINGLE GATES**HW-G1

<u>Each Traffic Gate to Have:</u>	<u>NON-RATED</u>
Spring Hinge	TYPE REQUIRED X STAINLESS STEEL
BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES	

HW-G2

<u>Each Gate to Have:</u>	<u>NON-RATED</u>
2 Weldable Gate Hinges	A8181 (3 KNUCKLE) X 5 INCHES X WELDED OR FASTENED X SHEAR HINGE LEAVES TO FIT GATE MEMBERS
1 Weldable Lock Box	
1 Utility Lock	F09 X NON-FERROUS LOCK CASE
1 Stainless Steel Closer	C52011/C22021
BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES	

HW-G3

<u>Each Gate to Have:</u>	<u>NON-RATED</u>
2 Weldable Gate Hinges	A8181 (3 KNUCKLE) X 5 INCHES X WELDED OR FASTENED X SHEAR HINGE LEAVES TO FIT GATE MEMBERS
1 Weldable Lock Box	
1 Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 Stainless Steel Closer	C52011/C22021
BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES	

HW-G4

<u>Each Gate to Have:</u>	<u>NON-RATED</u>
2 Weldable Gate Hinges	A8181 (3 KNUCKLE) X 5 INCHES X WELDED OR FASTENED X SHEAR HINGE LEAVES TO FIT GATE MEMBERS
1 Weldable Panic Box	
1 Anti-Vandal Pull	
1 Rim Panic Device	TYPE 1 F03 LESS TRIM
1 Cylinder	TYPE AS REQUIRED
1 Stainless Steel Closer	C52011/C22021
BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES	

HW-G5

Each Rolling or Swing-Up Gate to Have: NON-RATED  
 1 Padlock or 2 Cylinders TYPE AS REQUIRED  
 BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES

H. **EXTERIOR PAIRS OF GATES**HW-G6

Each Pair Traffic Gates to Have: NON-RATED  
 Spring Hinge TYPE REQUIRED X STAINLESS STEEL  
 BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES

HW-G7

Each Pair Gates to Have: NON-RATED  
 4 Weldable Gate Hinges A8181 (3 KNUCKLE) X 5 INCHES X WELDED  
 OR FASTENED X SHEAR HINGE LEAVES TO  
 FIT GATE MEMBERS  
 2 Padlockable Cane Bolts  
 2 Padlocks TYPE AS REQUIRED  
 1 Weldable Lock Box  
 1 Utility Lock F09 X NON-FERROUS LOCK CASE  
 2 Stainless Steel Closer C52011/C22021  
 BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES. INSTALL CANE BOLTS ON PULL SIDE OF EACH LEAF. ACTIVE LEAF CANE BOLT TO HAVE STRIKE IN OPEN POSITION ONLY. INACTIVE LEAF CANE BOLT TO HAVE STRIKES IN BOTH OPEN AND CLOSED POSITIONS.

HW-G8Each Pair Gates to Have:NON-RATED

4 Weldable Gate Hinges	A8181 (3 KNUCKLE) X 5 INCHES X WELDED OR FASTENED X SHEAR HINGE LEAVES TO FIT GATE MEMBERS
2 Padlockable Cane Bolts	
2 Padlocks	TYPE AS REQUIRED
1 Weldable Lock Box	
1 Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
2 Stainless Steel Closer	C52011/C22021

BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES. INSTALL CANE BOLTS ON PULL SIDE OF EACH LEAF. ACTIVE LEAF CANE BOLT TO HAVE STRIKE IN OPEN POSITION ONLY. INACTIVE LEAF CANE BOLT TO HAVE STRIKES IN BOTH OPEN AND CLOSED POSITIONS.

HW-G9Each Pair Gates to Have:NON-RATED

2 Weldable Gate Hinges	A8181 (3 KNUCKLE) X 5 INCHES X WELDED OR FASTENED X SHEAR HINGE LEAVES TO FIT GATE MEMBERS
2 Weldable Panic Boxes	
1 Anti-Vandal Pull	
1 Rim Panic Device	TYPE 1 F01
1 Rim Panic Device	TYPE 1 F03 LESS TRIM
1 Cylinder	TYPE AS REQUIRED
2 Stainless Steel Closer	C52011/C22021

BALANCE OF HARDWARE AND FIXED MULLION BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES.

HW-G10

Each Rolling or Swing-Up Gate to Have:

NON-RATED

1

Padlock or 2 Cylinders

TYPE AS REQUIRED

BALANCE OF HARDWARE BY SECTION 32 31 53, PERIMETER SECURITY FENCES AND GATES.

I. **RESIDENTIAL UNIT SINGLE DOORS**HW-R1Each Door to Have:NON-RATED/RATED

	<u>NON-RATED/RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Guestroom Card Lock	BY OTHER SECTION.
1 Closer (@ Rated Doors)	C02011
1 Floor Stop	L02121 x 3 FASTENERS
2 Door Viewers	L03221 - 190°
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-R1AEach Door to Have:NON-RATED

1 Continuous Hinge	
1 Guestroom Card Lock	BY OTHER SECTION.
1 Latch Protector (@ O/S Drs)	
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Floor Stop (@ I/S Doors)	L02121 x 3 FASTENERS
1 Overhead Stop (@ O/S Doors)	C01541-ADJUSTABLE
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-R2Each Door to Have:NON-RATED

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Latchset	F75
1 Base Stop	L02031 x 3 FASTENERS
3 Silencers	L03011

HW-R2AEach Door to Have:

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
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 Floor Stop	L02121 x 3 FASTENERS
3 Silencers	L03011

HW-R2BEach Door to Have:

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Latchset	F75
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	ROY346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	ROY154

HW-R2CEach Door to Have:

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
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 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	ROY346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	ROY154

HW-R3

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Privacy	F76B
1 Base Stop	L02031 x 3 FASTENERS
1 Coat Hook	L03121
3 Silencers	L03011

HW-R3A

<u>Each Door to Have:</u>	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Privacy	F76B
1 Base Stop	L02031 x 3 FASTENERS
1 Coat Hook	L03121
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

AT TOILET ROOMS, OMIT METAL THRESHOLD; STONE THRESHOLD BY OTHER TRADES.

HW-R4

<u>Each Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Classroom Lock	F84
1 Closer	C02011/C02021
1 Base Stop	L02031 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-R5

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

J. **RESIDENTIAL UNIT PAIRS OF DOORS**

HW-R6

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

HW-R7Each Pair to Have:NON-RATED

Hinges	QUANTITY & TYPE AS REQUIRED
2 Dummy Sets	
2 Roller Latches	E09091 x MORTISE STRIKE
2 Base Stops	L02031 x 3 FASTENERS
2 Silencers	L03011

HW-R7AEach Door to Have:NON-RATED/RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Guestroom Card Lock	BY OTHER SECTION.
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closer (@ Rated Doors)	C02011
2 Floor Stop	L02121 x 3 FASTENERS
2 Door Viewers	L03221 - 190°
1 Threshold	32300 x 57 MM WIDTH (2-1/4 INCHES)
2 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

SPEC WRITER NOTE: Coordinate "SH" sets with section 28 10 00 PHYSICAL ACCESS CONTROL SYSTEMS and electrical/systems drawings.

## 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

K. **INTERIOR SINGLE SECURITY DOORS**HW-SH-1

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

HW-SH-2

Each Door to Have:	<u>NON RATED</u>
1 Continuous Hinge	
1 Door Pull w/ Plate	J401 x J302
1 Lock	DETENTION TYPE LOCK
1 Strike/Keeper	AS REQUIRED
1 Overhead Stop	C01541-ADJUSTABLE X SEC. TORX
1 Door Position Switch	

HW-SH-3

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

Hinges	QUANTITY & TYPE AS REQUIRED
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 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	ROY346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	ROY154
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.  
CARD READER BY DIVISION 28.

HW-SH-3A

THIS SET NOT USED.

HW-SH-3B

Each [PB] Door to Have:

	<u>RATED</u>
1 Continuous Hinge	
1 Push-button Combination Lock	N3 - A156.13 F07 G1 E06
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	ROY154

HW-SH-3C

<u>Each [PB] Door to Have:</u>	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Push-button Combination Lock	N3 - A156.13 F07 G1 E06
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-SH-3D

<u>Each [AC, EL, REX, DPS] Door to Have:</u>	<u>RATED</u>
1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS X 4-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Electrified Lock	F07 (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE
	AS REQUIRED
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
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:

Hinges

1 Transfer Hinge

1 Electrified Occupancy Indicator Lock

1 Power Supply

1 Closer

1 Floor Stop

1 Threshold

1 Auto Door Bottom

2 Sets Self-Adhesive Seals

1 Alarm Contact

RATED

QUANTITY &amp; TYPE AS

REQUIRED

4-WIRE TYPE AS REQUIRED

F13-MODIFIED (E01-REX,

E06) 24VDC X OCCUPANCY

INDICATOR X KEY RETRACTS

LATCHBOLT AND DEADBOLT

X INTERNAL DEADBOLT

MONITOR SWITCH

REGULATED, FILTERED,

24VDC, AMPERAGE

AS REQUIRED

C02011/C02021

L02121 x 3 FASTENERS

J32300 x 57 mm width (2-

1/4 inches)

R0Y346 - HEAVY DUTY

R0Y154

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.

HW-SH-3F

Each [AC, RR, EL, REX, DPS] Door to Have: RATED

1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER x IN-HINGE ACCESS PANEL
1 Electrified Lock	F13-MOD x RIGID OUTSIDE LEVER X NO INSIDE TURN X KEY RETRACTS LATCHBOLT AND DEADBOLT (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE
	AS REQUIRED
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.  
CARD READER BY DIVISION 28.

HW-SH-3G

<u>Each [AC, RR, EL, REX, DPS] Door to Have:</u>	<u>RATED</u>
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER x IN-HINGE ACCESS PANEL
1 Electrified Lock	F13-MOD x RIGID OUTSIDE LEVER X NO INSIDE TURN X KEY RETRACTS LATCHBOLT AND DEADBOLT (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE
	AS REQUIRED
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Self-Adhesive Seals	R0Y154
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.  
CARD READER BY DIVISION 28.

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

1 Continuous Transfer Hinge

1 Electrified Lock

1 Power Supply

1 Closer

1 Kick Plate

1 Floor Stop

1 Set Self-Adhesive Seals

1 Door Viewer

1 Alarm Contact

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

CARD READER BY DIVISION 28.

NON-RATED/RATED

x 4-THRUWIRE TRANSFER x

IN-HINGE ACCESS PANEL

F13-MOD x RIGID OUTSIDE

LEVER X KEY RETRACTS

LATCHBOLT AND DEADBOLT

(E01- REX, E06) 24VDC

REGULATED, FILTERED,

24VDC, AMPERAGE

AS REQUIRED

C02011/C02021

J102

L02121 x 3 FASTENERS

R0Y154

L03221 - 190°

HW-SH-4Each [AC, EL, REX, DPS] Integrated Door to Have: RATED

1 Key Cylinder

TYPE AS REQUIRED

BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-SH-4AEach [ADO, AC, ELR, REX, DPS] Integrated Door to Have: RATED

1 Key Cylinder

TYPE AS REQUIRED

BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-SH-4BEach [ADO, AC, EL, REX, DPS] Door to Have:

1 Continuous Transfer Hinge	<u>RATED</u> x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 12-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Electrified Exit Device	TYPE 1 (E01-REX, E06) F13 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Power Supply	TYPE REQUIRED BY PANIC MANUFACTURER X ADO BOARD
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

POWER TRANSFER **SHARED BY ELECTRIC PANIC AND** RE-ACTIVATION SENSOR WIRING  
(RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).  
AUTOMATIC DOOR OPERATOR AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR  
OPERATORS.

HW-SH-5

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

HW-SH-6

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

**L. INTERIOR PAIRS OF SECURITY DOORS**HW-SH-7

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

HW-SH-8

THIS HARDWARE SET LEFT INTENTIONALLY BLANK AT THIS TIME.

HW-SH-9

Each [AC, EL, REX, DPS] Pair to Have:

RATED

	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED
1 Transfer Hinge	4-WIRE TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25
1 Dust Proof Strike	L04021
1 Electrified Lock	F07 (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02011/C02021
2 Kick Plates	J102 (@ STORAGE ROOMS ONLY)
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154
2 Alarm Contacts	

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

CARD READER BY DIVISION 28.

HW-SH-9AEach [PB] Pair to Have:RATED

2	Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1	Set Auto Flush Bolts	TYPE 25
1	Dust Proof Strike	L04021
1	Push-button Combination Lock	N3 - A156.13 F07 G1 E06
1	Coordinator	TYPE 21A
1	Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2	Closers	C02011/C02021
2	Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2	Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2	Floor Stops	L02121 x 3 FASTENERS
1	Set Self-Adhesive Seals	R0Y154

HW-SH-10Each [AC, EL, REX, DPS] Pair Integrated Doors to Have: RATED

1 Key Cylinder TYPE AS REQUIRED  
BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-SH-10AEach [AC, ADO, EL, REX, DPS] Pair Integrated Doors to Have: RATED

1 Key Cylinder TYPE AS REQUIRED  
BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES.  
AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC  
DOOR OPERATORS.

**M. EXTERIOR SINGLE SECURITY DOORS**HW-SH-12Each [AC, ELR, REX, DPS] Integrated Door to Have: NON-RATED

1 Key Cylinder TYPE AS REQUIRED  
BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

N. **MENTAL HEALTH AREAS**HW-MH1Each Door to Have:

	<u>NON-RATED/RATED</u>
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
1 Passage Latch	F01 x LESS TRIM
1 Set Anti-Ligature Trim	
1 Ligature Resistant Door Alarm	
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

NO CLOSER REQUIRED DUE TO EXEMPTION FOR PATIENT ROOM DOORS.

120VAC POWER TO MFR. SUPPLIED TRANSFORMER FOR DOOR ALARM

PROVIDE WIRING AND CONDUIT FOR CONTROL PANEL, AUDIBLE ALARM, STROBES, KEYPAD, HINGE TRANSFER AND KEY SWITCH AS PROVIDED FOR IN LIGATURE RESISTANT DOOR ALARM DESIGN. (ADD LIGATURE RESISTANT DOOR ALARM AT PATIENT BEDROOM DOORS)

HW-MH1AEach Door to Have:

	<u>RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED X HOSPITAL TIPS
1 Passage Latch	F01 x LESS TRIM
1 Set Anti-Ligature Trim	
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
1 Threshold	J32300 x 57 MM WIDTH (2- 1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

HW-MH1BEach Door to Have:

	<u>RATED/NON-RATED</u>
1 Continuous Hinge	x HOSPITAL TIP
1 Passage Latch	F01 x LESS TRIM
1 Set Anti-Ligature Trim	
1 Kick Plate	J102
1 Closer (@ rated doors)	C02011/C02021
1 Wall Stop	L02101 CONVEX
1 Threshold	J32300 x 57 MM WIDTH (2- 1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

INSTALL CLOSER OUTSIDE ROOM.  
PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

HW-MH2Each Door to Have:

	<u>NON-RATED</u>
Hinges	QUANTITY & TYPE AS REQUIRED x HOSPITAL TIP
1 Keyed Privacy Lock	F12 x LESS TRIM
1 Set Anti-Ligature Trim	Anti-Ligature Thumbturns
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop	L02121 x 3 FASTENERS
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.  
STONE THRESHOLD BY OTHER TRADES.

HW-MH2AEach Door to Have:

Hinges

1 Keyed Privacy

1 Set Anti-Ligature Trim

1 Closer

1 Kick Plate

1 Mop Plate (@ Inswing Doors)

1 Floor Stop

1 Set Self-Adhesive Seals

INSTALL CLOSER OUTSIDE ROOM

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

STONE THRESHOLD BY OTHER TRADES.

RATED/NON-RATED

QUANTITY &amp; TYPE AS

REQUIRED x HOSPITAL TIP

F13 x OCCUPANCY

INDICATOR x LESS TRIM

Indicator Lock

Anti-Ligature Thumbturns

C02011/C02021

J102

J103

L02121 x 3 FASTENERS

R0Y154

HW-MH3Each Door to Have:

1 Continuous Hinge

1 Classroom Lock

1 Set Anti-Ligature Trim

1 Armor Plate

1 Mop Plate

1 Edge Guard (@ Wood Doors)

1 Floor Stop

3 Silencers

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

NON-RATED

x INTEGRAL HINGE GUARD

CHANNEL X HOSPITAL TIP X

ADJUSTA-SCREWS

F05 x LESS TRIM

CH (Accurate Lock), or  
equalJ101 x 1.275 MM (0.050  
INCH) THICKNESS

J103

J208M / J211 (VERIFY),  
CUT: HARDWARE

L02121 x 3 FASTENERS

L03011

HW-MH3AEach Door to Have:

1 Continuous Hinge

1 Classroom Lock

1 Set Anti-Ligature Trim

1 Closer

1 Armor Plate

1 Edge Guard (@ Wood Doors)

1 Floor Stop

1 Set Self-Adhesive Seals

INSTALL CLOSER OUTSIDE ROOM.

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

RATED

x INTEGRAL HINGE GUARD  
 CHANNEL X HOSPITAL TIP X  
 ADJUSTA-SCREWS

F05 x LESS TRIM

CH (Accurate Lock), or  
 equal

C02011/C02021

J101 x 1.275 MM (0.050  
 INCH) THICKNESS

J208M / J211 (VERIFY),  
 CUT: HARDWARE

L02121 x 3 FASTENERS

R0Y154

HW-MH4

Each [AC, RR, EL, REX, DPS] Door to Have:

1 Continuous Transfer Hinge	RATED x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER x IN-HINGE ACCESS PANEL
1 Electrified Lock	F07 (E01-REX, E06) 24VDC x LESS TRIM
1 Set Anti-Ligature Trim	
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Ligature Resistant Door Alarm	
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Stretcher Plate	J101
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Door Viewer	L03221 - 190° (VIEW INTO WAITING ROOM)
1 Door Viewer	L03221 - 190° (VIEW INTO TREATMENT AREA)
1 Set Self-Adhesive Seals	R0Y154
1 Alarm Contact	1078-G (G.E. SECURITY), OR EQUAL

OMIT DOOR VIEWERS AT DOORS WITH VISION LITES.

INSTALL DOOR CLOSER ON WAITING ROOM SIDE.

120VAC POWER TO MFR. SUPPLIED TRANSFORMER FOR DOOR ALARM

PROVIDE WIRING AND CONDUIT FOR CONTROL PANEL, AUDIABLE ALARM, STROBES, KEYPAD, HINGE TRANSFER AND KEY SWITCH AS PROVIDED FOR IN LIGATURE RESISTANT DOOR ALARM DESIGN. (ADD LIGATURE RESISTANT DOOR ALARM AT PATIENT ROOM ISOLATION)

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

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

CARD READER BY DIVISION 28.

HW-MH4AEach Door to Have:

1 Continuous Hinge

1 Lock

1 Set Anti-Ligature Trim

1 Armor Plate

1 Edge Guard (@ Wood Doors)

1 Floor Stop

1 Threshold

1 Auto Door Bottom

1 Set Seals

RATED

x INTEGRAL HINGE GUARD  
 CHANNEL X HOSPITAL TIP X  
 ADJUSTA-SCREWS

F08 x LESS TRIM

J101 x 1.275 MM (0.050  
 INCH) THICKNESS

J208M / J211 (VERIFY),  
 CUT: HARDWARE

L02121 x 3 FASTENERS

J32300 x 57 MM WIDTH (2-  
 1/4 INCHES)

R0Y346 - HEAVY DUTY

R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

NO CLOSER REQUIRED DUE TO EXEMPTION FOR PATIENT ROOM DOORS.

HW-MH5Each Door to Have:

	<u>RATED/NON-RATED</u>
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
2 Anti-Ligature Pulls	
1 Deadlatch	F30 LESS TRIM BOTH SIDES
1 Ligature Resistant Door Alarm	
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2- 1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

NO CLOSER REQUIRED AT RATED DOORS DUE TO EXEMPTION FOR PATIENT ROOM DOORS.

120VAC POWER TO MFR. SUPPLIED TRANSFORMER FOR DOOR ALARM

PROVIDE WIRING AND CONDUIT FOR CONTROL PANEL, AUDIABLE ALARM, STROBES, KEYPAD, HINGE TRANSFER AND KEY SWITCH AS PROVIDED FOR IN LIGATURE RESISTANT DOOR ALARM DESIGN. (ADD LIGATURE RESISTANT DOOR ALARM AT PATIENT ROOM SECLUSION)

HW-MH5AEach Door to Have:

1 Continuous Hinge

2 Anti-Ligature Pulls

1 Deadlatch

1 Edge Guard (@ Wood Doors)

1 Armor Plate

1 Floor Stop

3 Silencers

STONE THRESHOLD BY OTHER TRADES.

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

RATED

x INTEGRAL HINGE GUARD  
 CHANNEL X HOSPITAL TIP X  
 ADJUSTA-SCREWS

F30 LESS TRIM BOTH SIDES  
 J208M / J211 (VERIFY),  
 CUT: HARDWARE

J101 x 1.275 MM (0.050  
 INCH) THICKNESS

L02121 x 3 FASTENERS

L03011

HW-MH6Each Pair to Have:

	<u>RATED/NON-RATED</u>
2 Continuous Transfer Hinges	x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
2 Anti-Ligature Pulls (act. lf)	
2 Manual Flush Bolts	L04251/L04261 (VERIFY)
1 Ligature Resistant Door Alarm	
1 Dust Proof Strike	L04021
1 Deadlatch	F30 LESS TRIM BOTH SIDES
1 Overlapping Astragal	R0Y634 x R0Y154 x THRU- BOLTS
2 Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2- 1/4 INCHES)
2 Auto Door Bottom	R0Y336 - HEAVY DUTY
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

120VAC POWER TO MFR. SUPPLIED TRANSFORMER FOR DOOR ALARM

PROVIDE WIRING AND CONDUIT FOR CONTROL PANEL, AUDIABLE ALARM, STROBES,  
KEYPAD, HINGE TRANSFER AND KEY SWITCH AS PROVIDED FOR IN LIGATURE  
RESISTANT DOOR ALARM DESIGN. (ADD LIGATURE RESISTANT DOOR ALARM AT  
PATIENT ROOM DOOR BARIATRIC)

HW-MH6AEach Pair to Have:

	<u>NON-RATED/RATED</u>
2 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
2 Manual Flush Bolts	L04251/L04261 (VERIFY)
1 Dust Proof Strike	L04021
1 Passage Latch	F01 x LESS TRIM
1 Set Anti-Ligature Trim	

1 Overlapping Astragal	R0Y634 x R0Y154 x THRU- BOLTS
2 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stop	L02121 x 3 FASTENERS
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

NO CLOSER REQUIRED DUE TO EXEMPTION FOR PATIENT ROOM DOORS.

- - - E N D - - -