

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.
- B. This Section includes the following:
 - 1. Hinges
 - 2. Continuous hinges
 - 3. Pivots
 - 4. Key control system
 - 5. Lock cylinders and keys
 - 6. Lock and latch sets
 - 7. Bolts
 - 8. Exit devices
 - 9. Closers
 - 10. Overhead stops and holders
 - 11. Miscellaneous door control devices
 - 12. Door trim units
 - 13. Protection plates
 - 14. Weatherstripping for exterior doors
 - 15. Sound and smoke seals for interior doors
 - 16. Automatic drop seals (door bottoms)
 - 17. Astragals or meeting seals on pairs of doors
 - 18. Thresholds
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Section 0: Section "Access Control" for key pad and card readers not specified in this section.
 - 2. Division 8: Sections for Hollow Metal Doors and Frames.
 - 3. Division 8: Sections for Laminated Plastic Faced Wood Doors.
 - 4. Division 8: Sections for Overhead Coiling Doors.
 - 5. Division 8: Sections for Automatic Door Operators.
 - 6. Division 26: Sections for electrical connections provided separately including conduit and wiring for power to, and control of, swinging automatic entrances.
 - 7. Division 28: Section "Access Control" for key pad and card readers not specified in this section.
- D. Products furnished but not installed under this Section to include:
 - 1. Cylinders for locks on entrance doors.

1.3 REFERENCES

- A. Standards of the following as referenced:
 - 1. American National Standards Institute (ANSI)
 - 2. Door and Hardware Institute (DHI)
 - 3. Factory Mutual (FM)
 - 4. National Fire Protection Association (NFPA)
 - 5. Underwriters' Laboratories, Inc. (UL)UL 10C - Fire Tests Door Assemblies
 - 6. Texas Accessibility Current Standards
 - 7. Warnock Hersey

- B. Regulatory standards of the following as referenced:
 - 1. Department of Justice, Office of the Attorney General, *Americans with Disabilities Act*, Public Law 101-336 (ADA).
 - 2. CABO/ANSI A117.1: Providing Accessibility and Usability for Physically Handicapped People, 2010 edition.

1.4 SYSTEM DESCRIPTION

- A. Refer to applicable "HW SETS" for system description for electric and electro-pneumatic hardware products.

1.5 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification sections.

- B. Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements. For items other than those scheduled in the "Headings" of Section 3, provide catalog information for the specified items and for those submitted.

- C. Final hardware schedule coordinated with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Final Hardware Schedule Content: Based on hardware indicated, organize schedule into vertical format "hardware sets" indicating complete designations of every item required for each door or opening. Use specification HW SET numbers with any variations suffixed a, b, etc. Include the following information:
 - a. Type, style, function, size, and finish of each hardware item.
 - b. Name and manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of each hardware set cross-referenced to indications on Drawings both on floor plans and in door and frame schedule.
 - e. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for hardware.
 - g. Door and frame sizes and materials.
 - h. Keying information.

- i. Cross-reference numbers used within schedule deviating from those specified.
 - 1) Column 1: State specified item and manufacturer.
 - 2) Column 2: State prior approved substituted item and its manufacturer.
 - 2. Furnish complete wiring diagrams, riser diagrams, elevation drawings, and operational descriptions of electrical components and systems, listed by opening in the hardware submittals. Elevation drawings to identify locations of the system components with respect to their placement in the door opening. Operational descriptions to fully detail how each electrical component will function within the opening, including all conditions of ingress and egress. Provide a copy with each hardware schedule submitted for approval. Supply a copy with delivery of hardware to the jobsite and another copy to the Owner at the time of project completion.
 - 3. Submittal Sequence: Submit final schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work that is critical in the Project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by door hardware, and other information essential to the coordinated review of schedule.
 - 4. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.
- D. Provide samples, if requested, of each type of exposed hardware unit in finish indicated and tagged with full description for coordination with schedule. Submit samples prior to submission of final hardware schedule.
- 1. Samples will be returned to the supplier. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated in the Work, within limitations of keying coordination requirements.
- E. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- F. Contract closeout submittals:
- 1. Operation and maintenance data: Complete information for installed door hardware.
 - 2. Warranty: Completed and executed warranty forms.
- 1.6 QUALITY ASSURANCE
- A. Single Source Responsibility: Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer.
 - B. Supplier Qualifications: A recognized architectural door hardware distributor, with warehousing facilities in the Project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced Architectural Hardware Consultant (AHC) who is available for consultation to Owner, Architect, and Contractor, at reasonable times during the course of the Work.
 - C. Coordination Meetings:
 - 1. Organize and attend the following:

- a. Lock distributor to meet with the Owner to finalize lock functions and keying requirements and to obtain final instructions in writing.
- b. Lock distributor and lock, closer and exit device manufacturers' representative(s) to meet with the installer prior to commencing installation of door hardware. Instruct installer on proper installation of scheduled products.

2. Organize and attend the following:

- a. Meet with the Owner, hardware supplier, frame and door supplier, electrical sub-contractor and security sub-contractor to coordinate all electrical hardware items. Hardware supplier to provide riser diagrams, elevation drawings, wiring diagrams, and operational descriptions as required by the General and sub-contractors.
- D. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and tested by UL or Warnock Hersey for given type/size opening and degree of label. Provide proper latching hardware, door closers, approved-bearing hinges, and seals whether listed in the Hardware Schedule or not. All hardware to comply with State and local codes and UL 10C.
 - 2. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors' UL labels indicating "Fire Door to be equipped with Fire Exit Hardware") provide UL label on exit devices indicating "Fire Exit Hardware".
- E. All hardware is to comply with Federal and State Handicap laws. Provide tactile warning at the back of all outside levers to electrical, mechanical, machine rooms, and doors that lead to hazardous areas.

1.7 PRODUCT HANDLING

- A. Tag each item or package separately with identification related to final hardware schedule, and include basic installation instructions with each item or package.
- B. Inventory door hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.
- C. Deliver individually packaged door hardware items promptly to place of installation.
- D. Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

1.8 WARRANTY

- A. Special warranties:
 - 1. Surface Door Closers: Twenty Five (25) year period
 - 2. Exit Devices: Three (3) year period
 - 3. Automatic Door Operators: Two (2) year period
 - 4. Mortise Locks and Cylinders: Three (3) year period

1.9 MAINTENANCE

- B. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS

(*Denotes manufacturer referenced in the Hardware Headings)

A. Hinges:

1. Acceptable manufacturers:
 - a. Ives*
2. Characteristics:
 - a. Templates: Provide only template-produced units.
 - b. Screws: Provide Phillips flat-head screws complying with the following requirements:
 - 1) For metal doors and frames install machine screws into drilled and tapped holes.
 - 2) For wood doors and frames install threaded-to-the-head wood screws.
 - 3) For fire-rated wood doors install #12 x 1-1/4", threaded-to-the-head steel wood screws.
 - 4) Finish screw heads to match surface of hinges or pivots.
 - c. Hinge pins: Except as otherwise indicated, provide hinge pins as follows:
 - 1) Out-Swing Exterior Doors: Non-removable pins.
 - 2) Interior Doors: Non-rising pins.
 - 3) Tips: Flat button and matching plug. Finished to match leaves.
 - d. Size: Size hinges in accordance with specified manufacturer's published recommendations.
 - e. Quantity: Furnish one pair of hinges for all doors up to 5'-0" high. Furnish one hinge for each additional 2-1/2 feet or fraction thereof.

B. Continuous Hinges:

1. Acceptable manufacturers:
 - a. Ives*
2. Characteristics:
 - a. Continuous gear hinges to be manufactured of extruded 6063-T6 aluminum alloy with anodized finish, or factory painted finish as scheduled.
 - b. All hinges are to be manufactured to template. Uncut hinges to be non-handed and to be a pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising.
 - c. Vertical door loads to be carried on chemically lubricated polyacetal thrust

bearings. The door and frame leaves to be continually geared together for the entire hinge length and secured with a full cover channel. Hinge to operate to a full 180°.

- d. Hinges to be milled, anodized, and assembled in matching pairs. Fasteners supplied to be steel self-drilling, self-tapping 12-24 x 3/4".
- e. Provide UL listed continuous hinges at fire doors. Continuous hinges at fire doors to meet the required ratings without the use of auxiliary fused pins or studs.

C. Pivot Sets:

- 1. Acceptable manufacturers:
 - a. Ives*
- 2. Characteristics:
 - a. Pivots to be high strength forged bronze with top pivot housing with spring activated bronze retracting pin. Pivots to have tilt-on bearing and bearing pin.
 - b. Offset and intermediate pivots to be handed at the factory. Pivot set to support doors to 1000 pounds. Each intermediate pivot to support 100 additional pounds. Centerline of pivots to be 3/4" from face of door, 3/4" from edge of door.

D. Cylinders:

- 1. Acceptable manufacturers:
 - a. Schlage. (CONFIRM KEYING SYSTEM WITH OWNER PRIOR TO SUBMITTAL)
- 2. Characteristics:
 - a. Except as otherwise indicated, provide new master key system for Project. Final keying to match the requirements of the facility and parent of the facility, if applicable. Key systems for all new construction shall be keyed to existing key system. For additions or renovations at existing buildings, contact shall be made with HCA Project Manager to provide direction as to type of key system to be specified or keyed to system currently in place at facility, dependent on integrity and condition of the existing system. If following the existing key system use the existing manufacturer's cylinders in Schlage ND series locks or Schlage mortise L9000 series locks.
 - b. Equip locksets with interchangeable core cylinders featuring patented, restricted keys and auxiliary locking pin.
 - c. Metals: Construct lock cylinder parts from brass or bronze, stainless steel, or nickel silver.
 - d. Comply with Owner's instructions for master keying and, except as otherwise indicated, provide individual change key for each lock that is not designated to be keyed alike with a group of related locks.
 - 1) Permanently inscribe each key with number of lock that identifies cylinder manufacturer's key symbol, and notation, "DO NOT DUPLICATE".
 - e. Key Material: Provide keys of nickel silver only.
 - f. Key Quantity: Furnish 3 change keys for each lock, 5 master keys for each master system, 5 grandmaster keys for each grandmaster system, 5 construction master keys, and 5 control keys for interchangeable core series.

- 1) Furnish one extra blank for each lock.
- 2) Furnish construction master keys to General Contractor.
- 3) Deliver keys to Owner.

E. Locksets, Latchsets, Deadbolts:

1. Acceptable manufacturers:
 - a. Schlage*
2. Mortise Locksets and Latchsets: as scheduled.
 - a. Chassis: Cold-rolled steel, handing field-changeable without disassembly.
 - b. Latchbolts: 3/4" throw stainless steel anti-friction type.
 - c. Lever Trim: Through-bolted, accessible design, cast or solid rod lever as scheduled. Spindles: Independent break-away.
 - d. Thumbturns: Accessible design not requiring pinching or twisting motions to operate.
 - e. Deadbolts: Stainless steel 1" throw.
 - f. Electric operation: Manufacturer-installed continuous duty solenoid.
 - g. Strikes: 16 gage curved stainless steel, bronze, or brass with 1" deep box construction, lips of sufficient length to clear trim and protect clothing.
 - h. Scheduled Lock Series and Design: Schlage L series.
 - i. Certifications:
 - 1) ANSI A156.13, 1994, Grade 1 Operational, Grade 1 Security.
 - 2) ANSI/ASTM F476-84 Grade 30 UL Listed.
3. Extra Heavy Duty Cylindrical Locks and Latches: as scheduled, fastened with through-bolts.
 - a. Chassis: Cylindrical design, corrosion-resistant plated cold-rolled steel.
 - b. Locking Spindle: Stainless steel, interlocking design.
 - c. Latch Retractors: Forged steel. Balance of inner parts: Corrosion-resistant plated steel, or stainless steel.
 - d. Lever Trim: Accessible design, independent operation, spring-cage supported, minimum 2" clearance from lever mid-point to door face.
 - e. Rosettes: Minimum 3-7/16" diameter for coverage of ANSI/DHI A115.18, 1994 door preparation, through-bolt lugs on both spring cages to fully engage this pattern.
 - f. Springs: Full compression type.
 - g. Electric operation: Manufacturer-installed continuous duty solenoid.
 - h. Strikes: 16 gage curved steel, bronze, or brass with 1" deep box construction, lips of sufficient length to clear trim and protect clothing.
 - i. Lock Series and Design: Schlage ND series.
 - j. Certifications:
 - 1) ANSI A156.2, 1994, Series 4000, Grade 1. Tested to exceed 3,000,000 cycles.
 - 2) UL listed for A label single doors up to 4 ft x 8 ft.
4. Deadbolts: as scheduled. Rotating cylinder trim rings of attack-resistant design. Mounting plates and actuator shields of plated cold-rolled steel. Mounting screws of 1/4" dia. steel and protected by drill-resistant ball bearings. Steel alloy deadbolt with

hardened steel roller. Strike with 1/8" thick strike reinforcer and two 3" long screws. ANSI A156.5, 1992 Grade 1 certified.

F. Exit Devices:

1. Acceptable manufacturers:
 - a. Von Duprin*
2. Characteristics:
 - a. Exit devices to be "UL" listed for life safety. All exit devices for fire rated openings to have "UL" labels for "Fire Exit Hardware".
 - b. All exit devices mounted on labeled wood doors to be mounted on the door in accordance with the door manufacturer's requirements.
 - c. All trim to be thru-bolted to the lock stile case. Lever design to match locksets.
 - d. All exit devices to be made of brass, bronze, stainless steel, or aluminum material, powder coated, anodized, or plated to the standard architectural finishes to match the balance of the door hardware.
 - e. Provide glass bead conversion kits to shim exit devices on doors with raised glass beads.
 - f. All exit devices to be one manufacturer. No deviation will be considered.
 - g. All series exit devices to incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with exit device operation.
 - h. All exit devices to be non-handed. Touchpad to extend a minimum of 1/2 of the door width and extend to the height of the cross rail housing for a "no pinch" operation. Plastic touchpads are not acceptable.
 - i. All latchbolts to be the deadlocking type. Latchbolts to have a self-lubricating coating to reduce wear. Plated or plastic coated latchbolts are not acceptable. Plastic linkage and "dogging" components are not acceptable.
 - j. Lever trim to be solid case material with a break-away feature to limit damage to the unit from vandalism. The break-away feature to utilize a clutch mechanism allowing the lever to drop to the six o'clock position and reset manually.
 - k. Surface vertical rod devices to be UL labeled for fire door applications without the use of bottom rod assemblies. Where bottom rods are required for security applications, the devices to be UL labeled for fire doors applications with rod and latch guards by the device manufacturer.
 - l. Exit devices to include impact resistant, flush mounted end cap design to avoid damage due to carts and other heavy objects passing through an opening. End cap to be of heavy-duty metal alloy construction and provide horizontal adjustment to provide alignment with device cover plate. When exit device end cap is installed, no raised edges will protrude.

G. Electric Strikes:

1. Acceptable manufacturers:
 - a. Von Duprin*
2. Characteristics:
 - a. Heavy duty, stainless steel construction.
 - b. Adjustable strike box to compensate for any misalignment of door or frame.
 - c. Two-piece plug connectors for ease of installation and for removal during strike

servicing.

H. Closers and Door Control Devices:

1. Acceptable manufacturers:
 - a. LCN Closers*
2. Characteristics:
 - a. Door closers to have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder.
 - b. All closers to utilize a stable fluid withstanding temperature range of 120°F to -30°F without seasonal adjustment of closer speed to properly close the door. Closers for fire-rated doors to be provided with temperature stabilizing fluid that complies with standards UBC 7-2 (1997) and UL 10C.
 - c. Spring power to be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation to be by tamper-proof, non-critical valves. Closers to have separate adjustment for latch speed, general speed and back check.
 - d. All closers to have solid forged steel main arms and, where specified, to have a stop on the closer shoe ("SCUSH"). Where door travel on out-swing doors must be limited, "SCUSH" type closers. Auxiliary stops are not required when "SCUSH" type closers are used. Provide drop plates where top rail of door is not sufficient for closer mounting. Provide "cush shoe supports" and "blade stop spacers" where dictated by frame details.
 - e. All closers (overhead, surface, and concealed) to be of one manufacturer and carry manufacturer's ten (10) year warranty. Electric closers to have two year warranty.
 - f. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped provide adjustable units complying with ADA and ANSI A-117.1 provisions for door opening force.
 - g. Closers to be installed to allow door swing to the maximum degree of opening before striking an obstruction. Doors swinging into exit corridors to provide for corridor clear width as required by code. Where possible, mount closers inside rooms.
 - h. Powder coating finish to be certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
 - i. Combination Door Closers and Holders: Provide units designed to hold door in open position under normal usage and to release and automatically close door under fire conditions. Incorporate an integral electromagnetic holder mechanism designed for use with UL listed fire detectors, provided with normally closed switching contacts.
 - j. Magnetic Door Holders to be heavy duty wall mounted with metal housing and complete mounting hardware. Provide 24V holding coils unless otherwise scheduled.

I. Overhead Door Stops and Holders:

1. Acceptable manufacturers:
 - a. Glynn Johnson*
2. Characteristics:

- a. Provide door stops and holders of brass, bronze or stainless steel.
- b. Concealed stops and holders to be installed with the jamb bracket mortised flush with the bottom of the jamb. The arm and channel to be mortised into the door.
- c. Surface-mounted stops and holders to be installed with the jamb bracket mounted on the stop.

J. Floor Stops and Wall Bumpers:

- 1. Acceptable manufacturers:
 - a. Ives*
- 2. Characteristics: Refer to Part 3, Hardware Schedule.

K. Door Bolts/Coordinators:

- 1. Acceptable manufacturers:
 - a. Ives*
 - b. Richards Wilcox* - Cane bolt only
- 2. Characteristics:
 - a. Flush bolts to be forged brass 6-3/4" x 1", with 1/2" diameter bolts. Plunger to be supplied with milled surface one side that fits into a matching guide.
 - b. Automatic flush bolts to be UL listed as top and bottom bolts on a pair of classified fire doors. Bolt construction to be of rugged steel and brass components.
 - c. Self-latching flush bolts to be UL listed as top and bottom bolts on a pair of classified fire doors. Bolt construction to be of rugged steel and brass components.
 - d. Automatic flush bolts and self-latching flush bolts are to be UL listed for fire door application without bottom bolts.
 - e. Furnish dust proof bottom strikes.
 - f. Coordinator to be soffit mounted non-handed fully automatic UL listed coordinating device for sequential closing of paired doors with or without astragals.
 - g. Provide filler pieced to close the header. Provide brackets as required for mounting of soffit applied hardware.

L. Push Plates:

- 1. Acceptable manufacturers:
 - a. Ives*
- 2. Characteristics:
 - a. Exposed Fasteners: Provide manufacturers standard exposed fasteners.
 - b. Material to be stainless steel.
 - c. Provide plates sized as shown in Part 3, Hardware Schedule.

M. Door Pulls & Pull Plates:

- 1. Acceptable manufacturers:
 - a. Ives*

2. Characteristics:

- a. Provide concealed thru-bolted trim on back to back mounted pulls, but not for single units.
- b. Material to be stainless steel.
- c. Provide units of types and sizes shown in Part 3, Hardware Schedule.

N. Protective Plates:

1. Acceptable manufacturers:

- a. Ives*

2. Characteristics:

- a. Provide manufacturers standard exposed fasteners for door trim units consisting of either machine screws or self-tapping screws.
- b. Materials:
 - 1) Metal Plates: Stainless Steel, .050 inch (U.S. 18 gage).
- c. Fabricate protection plates not more than 2" less than door width on push side and not more than 1" less than door width on pull side.

O. Thresholds:

1. Acceptable manufacturers:

- a. Zero Weatherstripping*

2. Types: Indicated in Part 3, Hardware Schedule.

P. Door Seals/Gasketing:

1. Acceptable manufacturers:

- a. Steelcraft*
- b. Zero Weatherstripping*

2. Types: Indicated in Part 3, Hardware Schedule.

Q. Silencers:

- 1. Acceptable manufacturers:
- 2. Ives*
- 3. Three (3) for each single door; two (2) for each pair of doors.
- 4. Omit silencers at openings scheduled to receive perimeter gasketing.

R. Key Cabinet and System:

1. Acceptable manufacturers:

- a. Telkee

2. Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150 percent of the number of locks required for the project.
 - a. Provide complete cross index system set up by key control distributor, and place keys on markers and hooks in the cabinet as determined by the final key schedule.
 - b. Provide hinged-panel type cabinet for wall mounting.
 - c. Provide multiple-drawer type cabinet.

2.2 MATERIALS AND FABRICATION

- A. Base Metals: Produce hardware units of basic metal and forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI/BHMA A156 series standards for each type of hardware item and with ANSI/BHMA A156.18 for finish designations indicated. Do not furnish "optional" materials or forming methods for those indicated, except as otherwise specified.
- B. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
 1. Do not provide hardware that has been prepared for self-tapping sheet metal screws, except as specifically indicated.
 2. Furnish screws for installation with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
 3. Unless indicated otherwise provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners.
 4. Use thru-bolts for installation of all exit devices, closers, and overhead stops. Coordinate with wood doors and metal doors and frames. Where thru-bolts are used, provide sleeves for each thru-bolt as a means of reinforcing the work, or use sex nut and bolt fasteners.

2.3 HARDWARE FINISHES

- A. Match items to the manufacturer's standard color and texture finish for the latch and lock sets (or push-pull units if no latch or lock sets).
- B. Provide finishes that match those established by ANSI or, if none established, match the Architect's sample.
- C. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Mount hardware units at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.
- B. "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.
- C. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.
- D. Set units level, plumb, and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- F. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements specified in Division 7 Section "Joint Sealers".
- G. Weatherstripping and Seals: Comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated.

3.2 ADJUSTING, CLEANING, AND DEMONSTRATING

- A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.
 - 1. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to function properly with final operation of heating and ventilating equipment.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Door Hardware Supplier's Field Service:
 - 1. Inspect door hardware items for correct installation and adjustment after complete installation of door hardware.
 - 2. Instruct Owner's personnel in the proper adjustment and maintenance of door hardware and hardware finishes.
 - 3. File written report of this inspection to Architect.

DELTA B REVISIONS

ITEMS IN BLUE ARE ADDITIONS, ITEMS IN RED ARE DELETIONS

Hardware Group No. 002A

For use on Door #(s):

1-1430A

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	HOSPITAL PRIVACY	ND44S SPA		626	SCH
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 004A

For use on Door #(s):

1-1452

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD SPA		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER

Hardware Group No. 005B

For use on Door #(s):

1-1413

1-1444

1-14551-1456

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	ND40S SPA OS-OCC		626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER

Hardware Group No. 005C

For use on Door #(s):

[1-1420](#)

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	DOUBLE SWING CONTINUOUS HINGE	A508		630	ABH
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	ND40S SPA OS-OCC		626	SCH
1	EA	APPLIED STOP	RESCUE STOP A509		630	ABH
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER

Hardware Group No. 005D

For use on Door #(s):

1-1445

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	ND40S SPA OS-OCC		626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 006A

For use on Door #(s):
1-1422

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER
3	EA	SILENCER	SR64		GRY	IVE
			AT NON-RATED			

Hardware Group No. 006B

For use on Door #(s):
1-1453

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 008B

For use on Door #(s):

1-1424 ~~1-1457~~

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE SET	ND10S SPA		626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER

Hardware Group No. 008C

For use on Door #(s):

1-1408	1-1409	1-1410	1-1411	1-1412	1-1414
1-1418	1-1419	1-1426	1-1427	1-1431	1-1432
1-1433	1-1434	1-1435	1-1437	1-1438	1-1439
1-1450	1-1451	1-1451			

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	PASSAGE SET	ND10S SPA		626	SCH
1	EA	WALL STOP	WS406CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

VERIFY HARDWARE AND DOOR DETAILS WHERE EXISTING DOORS OR FRAMES ARE TO REMAIN

Hardware Group No. 008D

For use on Door #(s):

1-1430

Provide each SGL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	PASSAGE SET	ND10S SPA		626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER
1	EA	DOOR BOTTOM	369AA		AA	ZER

Hardware Group No. 008G

For use on Door #(s):

1-1436

Provide each PR door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
3	EA	HINGE	5BB1HWSC 5		652	IVE
2	EA	CONST LATCHING BOLT	FB61T		630	IVE
1	EA	PASSAGE SET	ND10S SPA		626	SCH
1	EA	WALL STOP	WS406CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

UNEQUAL PAIR

Hardware Group No. 009A

For use on Door #(s):

[1-1404](#) 1-1406 1-1443 1-1443A 1-1449 [1-1449](#)
[1-1457](#) 1-1458

Provide each SGL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE		✎ 630	VON
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER
3	EA	SILENCER	SR64		GRY	IVE
			@ NON-RTD			
1	EA	MULTITECH READER	LNL-R11325-05TB - BY ACCESS CONTROL SYSTEM CONTRACTOR		✎	
1	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	POWER SUPPLY	BY SECURITY CONTRACTOR			

OPERATIONAL DESCRIPTION

PRESENTATION OF VALID CREDENTIAL UNLOCKS ELECTRIC STRIKE. ELECTRIC STRIKE RE-LOCKS AFTER PRESET INTERVAL. FREE EGRESS AT ALL TIMES. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS

Hardware Group No. 009B

For use on Door #(s):

1-1405A

~~1-1438~~

~~1-1438A~~

1-1460

Provide each SGL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD SPA		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE	 ⚡	630	VON
1	EA	SURFACE CLOSER	4050A RW/PA		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
			AS REQ			
1	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER
3	EA	SILENCER	SR64		GRY	IVE
			@ NON-RTD			
1	EA	MULTITECH READER	LNL-R11325-05TB - BY		⚡	
			ACCESS CONTROL SYSTEM			
			CONTRACTOR			
1	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	POWER SUPPLY	BY SECURITY CONTRACTOR			

OPERATIONAL DESCRIPTION

PRESENTATION OF VALID CREDENTIAL UNLOCKS ELECTRIC STRIKE. ELECTRIC STRIKE RE-LOCKS AFTER PRESET INTERVAL. FREE EGRESS AT ALL TIMES. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS

Hardware Group No. 009B.1

For use on Door #(s):

1-1438A

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
<u>3</u>	<u>EA</u>	<u>HINGE</u>	<u>5BB1HW 5 X 4.5</u>		<u>652</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>INSTITUTION LOCK</u>	<u>ND82TD SPA</u>		<u>626</u>	<u>SCH</u>
<u>1</u>	<u>EA</u>	<u>FSIC CORE</u>	<u>23-030</u>		<u>626</u>	<u>SCH</u>
<u>1</u>	<u>EA</u>	<u>ELECTRIC STRIKE</u>	<u>6211 FSE</u>		<u>630</u>	<u>VON</u>
<u>1</u>	<u>EA</u>	<u>SURFACE CLOSER</u>	<u>4050A RW/PA</u>		<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	<u>KICK PLATE</u>	<u>8400 10" X 2" LDW B-CS</u>		<u>630</u>	<u>IVE</u>
			<u>AS REQ</u>			
<u>1</u>	<u>EA</u>	<u>WALL STOP</u>	<u>WS406CCV</u>		<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>GASKETING</u>	<u>488SBR PSA</u>		<u>BR</u>	<u>ZER</u>
<u>2</u>	<u>EA</u>	<u>MULTITECH READER</u>	<u>LNL-R11325-05TB - BY</u>			
			<u>ACCESS CONTROL SYSTEM</u>			
			<u>CONTRACTOR</u>			
<u>1</u>	<u>EA</u>	<u>DOOR CONTACT</u>	<u>679-05HM</u>		<u>BLK</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	<u>POWER SUPPLY</u>	<u>BY SECURITY CONTRACTOR</u>			

OPERATIONAL DESCRIPTION

PRESENTATION OF VALID CREDENTIAL UNLOCKS ELECTRIC STRIKE. ELECTRIC STRIKE RE-LOCKS AFTER PRESET INTERVAL. FREE EGRESS AT ALL TIMES. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS

Hardware Group No. 009D.1

For use on Door #(s):

1-1429

1-1429A

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
<u>1</u>	<u>EA</u>	<u>CONT. HINGE</u>	<u>224XY</u>		<u>628</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>DOUBLE SIDE KEYPAD LOCKSET</u>	<u>DL5200 IC x 626</u>		<u>626</u>	<u>ALA</u>
<u>2</u>	<u>EA</u>	<u>FSIC CORE</u>	<u>23-030</u>		<u>626</u>	<u>SCH</u>
<u>1</u>	<u>EA</u>	<u>SURFACE CLOSER</u>	<u>4050A REG DEL TBWMS</u>		<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	<u>KICK PLATE</u>	<u>8400 8" X 2" LDW B-CS</u>		<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>WALL STOP</u>	<u>WS406/407CCV</u>		<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>GASKETING</u>	<u>488SBK PSA</u>		<u>BK</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>DOOR BOTTOM</u>	<u>320AA</u>			<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>THRESHOLD</u>	<u>8655A-226</u>		<u>A</u>	<u>ZER</u>

OPERATIONAL DESCRIPTION

VALID PIN FROM EITHER SIDE UNLOCKS LOCKSET. LOCKSET RELOCKS AFTER PRESET INTERVAL. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS

Hardware Group No. 010C

For use on Door #(s):

1-1405

Provide each SGL door(s) with the following:

QT Y		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	POWER TRANSFER	EPT10		✓ 689	VON
4	EA	DELAYED FIRE EXIT HARDWARE	CX98-L-F-M996-17-FS-SNB-24 VDC		✓ 626	VON
1	EA	<u>ELEC FIRE EXIT HARDWARE</u>	<u>RX-98-L-F-M996-17-FS-SNB</u>		✓ <u>626</u>	<u>VON</u>
1	EA	<u>RIM CYLINDER</u>	<u>20-057 ICX</u>		<u>626</u>	<u>SCH</u>
4	EA	RIM CYLINDER	20-057 ICX		626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX		626	SCH
2	EA	FSIC CORE	23-030		626	SCH
1	EA	<u>DELAYED EGRESS MAG</u>	<u>M490DEP</u>		✓ <u>628</u>	<u>SCE</u>
4	EA	SURFACE CLOSER	4050A-RW/PA		689	LCN
1	EA	<u>SURF. AUTO OPERATOR</u>	<u>9542 MS</u>		✓ <u>ANCL R</u>	<u>LCN</u>
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	FLOOR STOP	FS441		626	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER
2 (4)	EA	MULTITECH READER	LNL-R11325-05TB - BY ACCESS CONTROL SYSTEM CONTRACTOR		✓	
1	EA	<u>KEY SWITCH</u>	<u>653-1415 TORX 12/24 VDC</u>		✓ <u>630</u>	<u>SCE</u>
1	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	<u>AIPHONE/REMOTE RELEASE</u>	<u>BY VENDOR</u>		✓ <u>626</u>	
1	EA	POWER SUPPLY	PS902 BBK 900-4RL-FA 120/240 VAC		✓ LGR	SCE

OPERATIONAL DESCRIPTION

PRESSURE ON EXIT DEVICE FOR 2 SECONDS INITIATES AN IREVERSIBLE COUNTDOWN DURING WHICH ALARM WILL SOUND. DELAYED EGRESS WILL RELEASE AFTER DELAY INTERVAL FOR EGRESS. PRESENTATION OF VALID CREDENTIAL FROM EITHER SIDE OF DOOR OR LIFE SAFETY ALARM CONDITION TEMPORARILY SHUNTS DELAYED EGRESS SYSTEM. AFTER PRESET INTERVAL. SYSTEM WILL RE-ARM. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS. ~~(OPERATIONAL DESCRIPTION PRESSURE ON EXIT DEVICE FOR 2 SECONDS INITIATES AN IREVERSIBLE COUNTDOWN DURING WHICH ALARM WILL SOUND. EXIT DEVICE WILL RELEASE AFTER DELAY INTERVAL FOR EGRESS. PRESENTATION OF VALID CREDENTIAL FROM EITHER SIDE OF DOOR OR LIFE SAFETY ALARM CONDITION TEMPORARILY SHUNTS DELAYED EGRESS SYSTEM. AFTER PRESET INTERVAL. SYSTEM WILL RE-ARM. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS)~~

Hardware Group No. 011A

For use on Door #(s):

[1-1462](#)

Provide each DE door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
6	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
2	EA	PUSH PLATE	8200 4" X 16"		630	IVE
2	EA	SURFACE CLOSER	4050A EDA		689	LCN
2	EA	FIRE/LIFE WALL MAG	SEM7850		689	LCN
1	EA	GASKETING	488SBR PSA		BR	ZER
2	EA	MEETING STILE	8194AA		AA	ZER

DOORS HELD OPEN VIA MAGNETIC HOLD OPENS WHICH WILL RELEASE UPON FIRE ALARM ACTIVATION

Hardware Group No. 012E

For use on Door #(s):

[1-1407](#)

[1-1461](#)

Provide each DE door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
2	EA	CONT. HINGE	224XY EPT		628	IVE
2	EA	POWER TRANSFER	EPT10		✓ 689	VON
2	EA	ELEC FIRE EXIT HARDWARE	QEL-9827-EO-F-LBR-499F-SNB 24 VDC		✓ 626	VON
1	EA	MORTISE CYLINDER	20-061 ICX		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	DELAYED EGRESS MAG	M490DEP		✓ 628	SCE
1	EA	MAGNETIC LOCK	M490P		628	SCE
1	EA	SURF. AUTO OPERATOR	9553 REG/STD MS		✓ ANCL R	LCN
1	EA	ROCKER SWITCH	8310-806R		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	WALL STOP	WS406CCV		630	IVE
1	EA	GASKETING	488SBR PSA		BR	ZER
2	EA	MEETING STILE	8194AA		AA	ZER
2	EA	MULTITECH READER	LNL-R11325-05TB - BY ACCESS CONTROL SYSTEM CONTRACTOR		✓	
1	EA	KEY SWITCH	653-1415 TORX 12/24 VDC		✓ 630	SCE
2	EA	<u>AIPHONE/REMOTE RELEASE</u>	<u>BY VENDOR</u>		✓ <u>626</u>	
4	EA	<u>PUSHBUTTON</u>	<u>SS21A1EX EN-BY SECURITY CONTRACTOR</u>		✓	<u>STI</u>
1	EA	POWER SUPPLY	PS902 BBK 900-4RL-FA 120/240 VAC		✓ LGR	SCE

OPERATIONAL DESCRIPTION:

DOORS ARE NORMALLY CLOSED AND SECURE.

PRESSING ON LEAF WITH DE MAG LOCK(EGRESS PATH LEAF) INITIATES AN IRREVERSIBLE 15 SECOND COUNTDOWN DURING WHICH ALARM WILL SOUND.

PRESENTATION OF VALID CREDENTIAL FROM EITHER SIDE RELEASES MAG LOCKS AND ENGAGES AUTOMATIC OPERATOR. AFTER PRESET INTERVAL, DOORS CLOSE AND MAG LOCKS RE-ENERGIZE.

IN THE EVENT OF A LIFE SAFETY ALARM, MAG LOCKS RELEASE, AND DOORS CAN BE OPERATED MANUALLY.

KEYSWITCH AT OPENING IS USED TO MANUALLY REARM DELAYED EGRESS MAG LOCK DELAYED EGRESS SIGNAGE REQUIRED ON LEAF EXITING CORRIDOR 1407 AND 1462.

(OPERATIONAL DESCRIPTION:

LATCHBOLTS TO REMAIN RETRACTED AT ALL TIMES. DOORS ARE NORMALLY CLOSED AND SECURE. PRESSING ON LEAF WITH DE MAG LOCK INITIATES AN IRREVERSIBLE COUNTDOWN DURING WHICH ALARM WILL SOUND. PRESENTATION OF VALID CREDENTIAL FROM EITHER SIDE RELEASES MAG LOCK AND ENGAGES AUTOMATIC OPERATOR. AFTER PRESET INTERVAL, DOORS CLOSE AND MAG LOCKS RE-ENERGIZE. IN THE EVENT OF A LIFE SAFETY ALARM, MAG LOCKS RELEASE, AND DOORS CAN BE OPERATED MANUALLY. KEYSWITCH/PUSHBUTTON FOR EMERGENCY RELEASE BY STAFF. COORDINATION WITH FIRE AND LIFE SAFETY.)

Hardware Group No. 013A

For use on Door #(s):

[1-1463](#)

Provide each PR door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
6	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
2	EA	FIRE EXIT HARDWARE	9827-L-BE-F-LBR-17-499F-SNB		626	VON
2	EA	SURFACE CLOSER	4050A EDA		689	LCN
2	EA	FIRE/LIFE WALL MAG	SEM7850		689	LCN
1	EA	GASKETING	488SBR PSA		BR	ZER
2	EA	MEETING STILE	8194AA		AA	ZER

DOORS ARE NORMALLY HELD OPEN VIA MAGNETIC HOLD OPENS WHICH WILL RELEASE UPON ACTIVATION OF FIRE ALARM.

Hardware Group No. [013C](#)

For use on Door #(s):

[1-1500](#)

Provide each PR door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
6	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	FIRE EXIT HARDWARE	9827-EO-F-LBR-499F-SNB		626	VON
1	EA	FIRE EXIT HARDWARE	9827-L-F-06		US26D	VON
2	EA	SURFACE CLOSER	4050A EDA		689	LCN
1	EA	GASKETING	488SBR PSA		BR	ZER
2	EA	MEETING STILE	8194AA		AA	ZER

[VERIFY EXISTING DOOR/FRAME DETAILS FOR NEW HARDWARE.](#)

Hardware Group No. 102D.

For use on Door #(s):

[1-1429B](#)

Provide each SGL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	POWER TRANSFER	EPT10		✓ 689	VON
1	EA	EU MORTISE LOCK	L9092TEU 17A RX		✓ 626	SCH
1	EA	FSIC CORE	23-030		626	SCH
4	EA	MAGNETIC LOCK	M490P		628	SCE
1	EA	SURFACE CLOSER	4050A SCUSH		689	LCN
1	EA	CUSH SHOE SUPPORT	4050A-30		689	LCN
1	EA	RAIN DRIP	142AA		AA	ZER
1	EA	GASKETING	312A-S		A	ZER
1	EA	DOOR SWEEP	39A		A	ZER
1	EA	THRESHOLD	65A-223		A	ZER
<u>1</u>	<u>EA</u>	<u>MULTITECH</u> <u>KEYPAD/READER</u>	<u>LNL-R11325-05TB - BY</u> <u>ACCESS CONTROL SYSTEM</u> <u>CONTRACTOR</u>		✓	
4	EA	MULTITECH READER	LNL-R11325-05TB - BY ACCESS CONTROL SYSTEM CONTRACTOR		✓	
4	EA	PUSH BUTTON	621GIDEX-DA		✓ 629	SCE
1	EA	DOOR CONTACT	679-05HM		BLK	SCE
<u>1</u>	<u>EA</u>	<u>AIPHONE/REMOTE</u> <u>RELEASE</u>	<u>BY VENDOR</u>		✓ <u>626</u>	
1	EA	POWER SUPPLY	BY SECURITY CONTRACTOR			

OPERATIONAL DESCRIPTION

PRESENTATION OF VALID CREDENTIAL UNLOCKS LOCKSET FROM OUTSIDE. MAG LOCK LOCKS IF INNER DOOR IS OPENED. DOORS INTERLOCKED. BUTTON INSIDE FOR EMERGENCY EXITING. COORDINATE WITH ELECTRICAL, SECURITY AND FIRE LIFE SAFETY SYSTEMS.

Hardware Group No. 109A

For use on Door #(s):

1-1400

Provide each SL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
1	EA	MORTISE CYLINDER	20-062 ICX		626	SCH
1	EA	FSIC CORE	23-030		626	SCH
1	EA	MULTITECH READER	LNL-R11325-05TB - BY ACCESS CONTROL SYSTEM CONTRACTOR			

BALANCE OF HARDWARE BY DOOR SUPPLIER
COORDINATE WITH SECURITY AND ELECTRICAL

Hardware Group No. 110A

For use on Door #(s):

1-1403

Provide each SL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						

ALL HARDWARE BY DOOR SUPPLIER
COORDINATE WITH SECURITY AND ELECTRICAL

Hardware Group No. 110C

For use on Door #(s):

1-1423

Provide each SL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						

ALL HARDWARE BY DOOR SUPPLIER.

Hardware Group No. 401C

For use on Door #(s):

1-1415

Provide each SGL door(s) with the following:

QT		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
Y						
1	EA	CONTINUOUS HINGE	KG200		628	KIN
1	EA	PASSAGE SET	L9010 HSLR TORX XL12-482		630	SCH
4	EA	OH-STOP	100S-SOC		630	GLY
<u>1</u>	<u>EA</u>	<u>WALL STOP</u>	<u>KG184 (WITHOUT BACKPLATE)</u>		<u>BLK</u>	<u>KIN</u>
1	EA	GASKETING	488SBK PSA ZAG		BK	ZER

END OF SECTION