

SECTION 087100 FINISH HARDWARE

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.2 SECTION INCLUDES

- A. Work of this Section includes all labor, materials, equipment and services necessary to furnish all the finish hardware as shown on the drawings and/or specified herein.
 - 1. Mechanical and electrified door hardware
 - 2. Electronic access control system components
 - 3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.

1.3 RELATED SECTIONS

- A. Division 1
- B. Installation of finish hardware - Section 062000.
- C. Joint Sealers - Section 079200
- D. Steel doors and frames - Section 081113.
- E. Wood doors - Section 081416.
- F. Aluminum entrance and storefronts - Section 084113.
- G. Painting - Section 099000 for touchup, finishing or refinishing of existing openings modified by this section.
- H. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
- I. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.4 REFERENCES

- A. UL - Underwriters Laboratories
 - 1. UL 10B - Fire Test of Door Assemblies
 - 2. UL 10C - Positive Pressure Test of Fire Door Assemblies
 - 3. UL 1784 - Air Leakage Tests of Door Assemblies
 - 4. UL 305 - Panic Hardware

- B. DHI - Door and Hardware Institute
 - 1. Sequence and Format for the Hardware Schedule
 - 2. Recommended Locations for Builders Hardware
 - 3. Keying Systems and Nomenclature
 - 4. Installation Guide for Doors and Hardware

- C. NFPA – National Fire Protection Association
 - 1. NFPA 70 – National Electric Code
 - 2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
 - 3. NFPA 101 – Life Safety Code
 - 4. NFPA 105 – Smoke and Draft Control Door Assemblies
 - 5. NFPA 252 – Fire Tests of Door Assemblies

- D. ANSI - American National Standards Institute
BHMA - Builders Hardware Manufacturers Association
 - 1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
 - 2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
 - 3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
 - 4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
 - 5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

- E. IBC – International Building Code.

- F. UCC - Uniform Construction Code.

- G. SDI - Steel Door Institute.

- H. WDI - Wood Door Institute.

- I. AWI - Architectural Woodwork Institute.

- J. NAAM - National Association of Architectural Metal Manufacturers.

1.5 QUALITY ASSURANCE

- A. Hardware shall be suitable and adapted for its required use and shall fit its designated location. Should any hardware as shown, specified or required fail to meet the intended requirements or require modification to suit or fit the designated location, determine the correction or modification necessary and notify the Architect in ample time to avoid delay in the manufacture and delivery of hardware.

- B. Qualifications and Responsibilities:
 - 1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project’s vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.

2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

C. Certifications:

1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - b. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.4 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.
 - b. Barrier Free Requirements: Maximum pressure applied to the latch area to open exterior doors shall not exceed fifteen (15) pounds. Interior doors which have a self-closing feature shall require pressure not to exceed five (5) pounds.

D. Pre-Installation Meetings

1. Keying Conference

- a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.

2. Pre-installation Conference

- a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
- b. Inspect and discuss preparatory work performed by other trades.
- c. Inspect and discuss electrical roughing-in for electrified door hardware.
- d. Review sequence of operation for each type of electrified door hardware.
- e. Review required testing, inspecting, and certifying procedures.
- f. Review questions or concerns related to proper installation and adjustment of door hardware.

3. Electrified Hardware Coordination Conference:

- a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.6 SUBMITTALS

A. General:

- 1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
- 2. Prior to forwarding submittal:
 - a. Comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, "EXAMINATION" article, herein.
 - b. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - c. Highlight, encircle, use different color or otherwise specifically identify on submittals to bring change to the attention of the Architect: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

- 1. **Product Data:** Submit 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.
- 2. **Riser and Wiring Diagrams:** After final approval of hardware schedule, submit details of electrified door hardware, indicating:

- a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: Submit samples as requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
 - a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations after substantial completion of work, be incorporated into Work, within limitations of key coordination requirements.
 - b. Samples shall include one (1) each of the following samples:
 - 1) Hinge (each type)
 - 2) Intermediate Pivot
 - 3) Surface Closer
 - 4) Lockset (office function)
 - 5) Floor Stop
4. Door Hardware Schedule:
 - a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
 - b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
5. Key Schedule:
 - a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.

- c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
- d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
- e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
- f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Final approved hardware schedule edited to reflect conditions as installed.
 - d. Final keying schedule
 - e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
 - f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.7 DELIVERY, STORAGE, AND PRODUCT HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.
- G. Pack finish hardware in approved manufacturer's containers, complete with trimmings, bolts, screws, washers, etc., as required for application and securement. Each container shall bear a suitable label which shall state the quantity and kind of contents of said container, as well as identifying marks relating to the approved Hardware Schedule and its location in the project.
- H. Knobs, handles, pulls and other items of finish hardware with easily damaged finishes shall be individually wrapped before placing in containers and with sufficient sheet cloth or cotton-backed paper which shall be adequately tied with heavy strings; all as necessary to protect the finishes.
- I. Finish hardware shall be delivered, as directed, to the building site or the factories of the various fabricators of metal work to which such hardware is to be applied. Deliver hardware in the order required and in ample time to permit application at the building, or fabricators' shops, within the time required for the completion of the building.

1.8 JOB CONDITIONS

- A. **Field Service:** The hardware supplier shall assign a competent representative, acceptable to the Architect, to be at the jobsite each time a major shipment of finish hardware is received. Such representative shall assist in "checking in" these shipments and shall secure a receipt covering the contents of each shipment. In addition, such representative shall be available for immediate call to the jobsite when, in the opinion of the Architect, his presence is necessary.
- B. **Templates:** Promptly following approval of the Hardware Schedule by the Architect, furnish and deliver template information, to the fabricators, of items to which finish hardware is to be applied.
 - 1. Such deliveries shall be made in ample time to avoid delays in such work of said fabricators. Provide drawings, schedules and detailed information to other trades as necessary for them to accommodate and prepare their work to receive the finish hardware.
 - 2. **Installation Templates:** Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. **Cooperation and Coordination**
 - 1. Cooperate and coordinate work with that of other trades supplying materials or performing work in contact with, connecting to, underlying, or overlaying the work of this Section.
 - 2. Provide complete data of requirements for work of this Section to those other trades whose work is affected by or dependent upon the work of this Section.

3. Furnish all items to be built into other work in ample time to avoid delaying the progress of such work.
4. Examine all drawings covering the work of this Section and refer to all other drawings, including mechanical and electrical drawings, which may affect the work of this Section or require coordination by this trade.
5. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
6. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
7. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.
8. Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.9 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage ND Series: 10 year
 - 2) Exit Devices
 - a) Falcon: 10 year
 - 3) Closers
 - a) Falcon SC Series: 10 year
 - b. Electrical Warranty
 - 1) Locks
 - a) Schlage: 1 year
 - 2) Exit Devices
 - a) Falcon: 1 year

1.10 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Requirements for design, grade, function, finish, size and other distinctive qualities of each type of finish hardware are indicated herein. Products are identified by using appropriate hardware designation numbers.
- B. Manufacturers are listed for each hardware type required. Provide either the product designated, or approved equal.
- C. Proprietary Products: References to specific proprietary products are used to establish minimum standards of utility and quality. Other materials may be considered by the Architect in accordance with the provisions of these specifications.
- D. Notwithstanding anything to the contrary in this specification or the drawings, the finish hardware shall conform to the requirements of governmental authorities having jurisdiction and such requirements shall be followed as if specifically set forth in this specification.
- E. Finish hardware shall conform to the applicable requirements of the American Insurance Association, and the National Board of Fire Underwriters' Laboratories, Inc., and other local authorities having jurisdiction, and each such item shall bear a label or mark of the Underwriters' Laboratories, Inc., indicating its conformity with such requirements for use in connection with its specified location.
- F. Finish hardware shall be uniform in color and finish and free from imperfections affecting its appearance, function, operation and serviceability. Such hardware shall be suited and adapted to its required use and shall fit its respective location.
- G. Where the finished shape or size of members receiving finish hardware are such as to prevent or render unsuitable the use of the specific types or sizes of such hardware, suitable types or sizes shall be furnished, having as nearly as practicable the same function, operation and quality as the specified hardware.
- H. Bolts, screws and other fastenings required for the application of the finished hardware shall be of size and type to fit requirements and shall be of the same material and finish as the exposed parts of such hardware which they adjoin. Exposed screws and bolts shall have countersunk oval heads and bolts shall be provided with cap nuts. Countersunk part of screw and bolt holes shall be finished smoothly without sharp edges and form a firm seal for such screw and bolt heads. Full threaded wood screws shall be furnished for all wood applications. No thru bolts will be allowed.

2.2 PRODUCTS AND MANUFACTURERS

- A. Provide hardware as indicated in hardware sets. References to specific products are used to establish minimum standards.
- B. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

- C. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.3 MATERIALS

A. Fabrication

- 1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer’s recognized installation standards for application intended.
- 2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
- 3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with “Metal Doors and Frames”, “Flush Wood Doors”, “Stile and Rail Wood Doors” to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

2.4 HINGES

A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series
- 2. Acceptable Manufacturers and Products:
 - a. Hager BB1191/1279 series
 - b. Stanley FBB series

B. Requirements:

- 1. Provide hinges conforming to ANSI/BHMA A156.1.
- 2. Provide five (5) knuckle, concealed ball bearing hinges.
- 3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
 - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
- 4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
- 5. 2 inches or thicker doors:
 - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
- 6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
- 7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.

8. Hinge sizes shall be detailed so that the least amount of projection shall be visible from the frame.
9. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
10. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
11. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.
12. Electric Hinges: Coordinate voltage and other electrical requirements with applicable portions of Division 26 "Electrical".

2.5 CONTINUOUS HINGES

- A. Manufacturers:
 1. Scheduled Manufacturer:
 - a. Ives
 2. Acceptable Manufacturers:
 - a. Select
 - b. ABH
- B. Requirements:
 1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
 2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
 3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
 4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
 5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
 6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
 7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.6 PIVOT SETS

A. Manufacturer:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Stanley
 - b. ABH

B. Requirements:

1. Provide quantities and types of pivots (offset, intermediate and center) as required to suit door sizes and weights.
2. Pivot sets (offset and center) shall consist of top and bottom pivots, unless otherwise indicated.
3. Provide a top pivot for each floor closer unless otherwise indicated.
4. Provide pivot sets complete with oil-impregnated top pivot, unless indicated otherwise.
5. Where offset pivots are specified, Provide one intermediate pivot for doors less than 91 inches high and one additional intermediate pivot per leaf for each additional 30 inches in height or fraction thereof. Intermediate pivots spaced equally not less than 25 inches or not more than 35 inches on center, for doors over 121 inches high.
6. Provide appropriate model where pivot sets are specified at fire rated openings.
7. Provide lead-lined model where pivot sets are specified at lead-lined doors.
8. Provide electric pivot, located nearest to the electrified locking component, with sufficient number and gage of concealed wires to accommodate electric function of specified hardware. If the manufacturer of the electrified locking component requires another device for power transfer then provide the recommended power transfer device and the appropriate quantity of pivots.
9. Provide mortar guard for each electric pivot specified, unless specified in hollow metal frame specification.

2.7 COORDINATORS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes, or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

2.8 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage ND series

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Cylinders: Refer to “KEYING” article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: ATH
9. Mechanical: Provide types, functions, as specified. Coordinate with Owners keying requirements.
10. Electric Lock: Electric locks shall be fail safe and shall be deactivated by fire suppression system and devices (local and/or remote) as determined by the Owner.
 - a. Coordinate voltage and other electrical requirements with applicable portions of Division 26 “Electrical”
11. Electric Strike: Electric locks shall be fail safe and shall be deactivated by fire suppression system and devices (local and/or remote) as determined by the Owner.
 - a. Coordinate voltage and other electrical requirements with applicable portions of Division 26 “Electrical”

2.9 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Falcon 24/25 series
2. Acceptable Manufacturers and Products:
 - a. Von Duprin 98 series
 - b. Precision Apex series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to “KEYING” article, herein.
3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.

5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
 6. Provide flush end caps for exit devices.
 7. Provide exit devices with manufacturer's approved strikes.
 8. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
 9. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
 10. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
 11. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
 12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
 13. Provide electrified options as scheduled.
 14. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
 15. Provide smart contactless readers with universal compatibility with most access control systems by outputting card data in compliance with the SIA AC-01 Wiegand standard.
- C. Where electrified latch retraction is specified, provide device with powerful continuous duty solenoid to retract the latch bolt(s) for momentary unlocking or for extended periods of time.
- D. Where electrified trim is specified, provide device with electrically locking (fail safe) or electrically unlocking (fail secure) trim.
1. Provide appropriate power supply & power transfer(s), as required for application.
 2. Use only on fire exit devices when under the control of an automatic fire alarm system.
 3. Coordinate with electrical specifications and drawings, and owner's security consultant.

2.10 CYLINDERS

A. Manufacturer and Product:

1. Scheduled Manufacturer and Product: Schlage Everest 29 T specified.

B. Requirements:

1. Provide cylinders/cores compliant with ANSI/BHMA A156.5; latest revision, Section 12, Grade 1; permanent cylinders; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
2. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent-protected until the year, 2029.
3. Nickel silver bottom pins.
4. Replaceable Construction Cores.
 - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - 1) 12 construction change (day) keys.
 - b. Owner or Owner's Representative will replace temporary construction cores with permanent cores.

2.11 KEY CONTROL SYSTEM

- A. Manufacturers:
 - 1. Scheduled Manufacturer:
 - a. Telkee
 - 2. Acceptable Manufacturers:
 - a. HPC
 - b. Lund

- B. Requirements:
 - 1. Provide 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% of number of locks required for Project.
 - a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
 - b. Provide hinged-panel type cabinet for wall mounting.

- C. Keys and Keying
 - 1. Coordinate new keying requirements with requirements of building standard keying system.
 - 2. Provide three (3) keys for each differently keyed lock. Unless otherwise indicated, locks shall be keyed differently.
 - a. Locks to the following spaces shall be keyed alike:
 - 1) Mechanical Equipment Rooms, Electrical Panel Rooms, and Telephone Equipment Rooms.
 - 2) Janitor's Closets.
 - 3. Provide one hundred (100) key blanks.
 - 4. Provide three (3) Master Keys.
 - 5. Final keying requirements will be determined by the Owner.

2.12 DOOR CLOSERS

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product:
 - a. Falcon SC70A series
 - 2. Acceptable Manufacturers and Products:
 - a. LCN 4050 series
 - b. Sargent 351 series

- B. Requirements:
 - 1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
 - 2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.

3. Closer Body: 1-1/2-inch (38 mm) diameter with 5/8-inch (16 mm) diameter heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.
9. Unless otherwise indicated, closers shall not be visible on the public side of doors. Closers opening into public spaces shall be provided with parallel arms and brackets to suit.
10. Closers shall be sized in accordance with the accepted manufacturer's standards to suit height, width, weight of door and draft conditions.
11. Provide a top pivot for each floor closer.
12. Provide weather sealing compound for each exterior floor closer.

2.13 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson
2. Acceptable Manufacturers:
 - a. Sargent
 - b. ABH

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
2. Provide friction type at doors without closer and positive type at doors with closer.
3. Size overhead stops to suit door width, height, weight and draft condition.
4. Overhead stops shall have extruded architectural bronze tracks with a built-in shock absorber. The arm shall be hard-drawn brass.

2.14 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Burns

- ##### B. Provide door stops at each door leaf: Provide stops to limit the degree of opening, helping to prevent damage to adjacent walls, columns, equipment, the door or its hardware.

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
 2. Where a wall stop cannot be used, provide universal floor stops.
 3. Where wall or floor stop cannot be used, provide overhead stop.
 4. Provide roller bumper where doors open into each other and overhead stop cannot be used.
 5. Floor Stops: All stops to be fastened to concrete shall use expansion shields and machine screws.
- 2.15 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING
- A. Manufacturers:
1. Scheduled Manufacturer:
 - a. Zero International
 2. Acceptable Manufacturers:
 - a. National Guard
 - b. Reese
- B. Requirements:
1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
 2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
 4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.
- C. Perimeter seals: shall be of compressible black Neoprene material. Housing shall be solid alum stock. Furnish seals on three sides of the opening. Coordinate the amount of material is required in each specified opening.
- D. Seals shall be mechanically fastened to door frame.
- E. Door sweeps: shall be extruded aluminum and black neoprene sweep.
1. Fasten door sweeps with wood screws for wood doors and sheet metal screws for hollow metal and fiberglass reinforced doors.
 2. Door sweep shall be 1 1/4" in overall height with a 1/2" high neoprene sweep.
 3. Mount door sweep on the exterior side of the door, with the neoprene engaged with the threshold or finish floor.
- F. Thresholds: shall be extruded aluminum meeting ADA requirements. They shall not exceed 1/4" in height with a wall thickness of .125" unless specified otherwise. Coordinate templates for any and all hardware, which may require cutouts or slots within the threshold for the proper installation of that hardware.
1. Furnish threshold with non-slip epoxy abrasive bonded within the grooves of the threshold.

2. Thresholds shall extend a minimum of 1" past the exterior face of the door, and have returned closed ends.
3. Set all thresholds in grout, and seal with silicone caulk.
4. Fasten thresholds with expansion shield mounting at masonry sub-straight locations, and wood screws at wood substrate locations.

2.16 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.17 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Schlage
2. Acceptable Manufacturers:
 - a. GE-Interlogix
 - b. Sargent

B. Requirements:

1. Provide recessed or surface mounted type door position switches as specified.
2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.18 SPECIFIC ITEMS

- A. Pushes and Pulls: Provide concealed fasteners where practical. Where exposed fasteners are required provide flush type finished to match push or pull.
- B. Flush Bolts: Provide top and bottom extension type flush bolts, mounted twelve (12) inches and seventy-two (72) inches respectively from the bottom of each door, where scheduled. Provide each bottom flush bolt with a dustproof strike.

2.19 FINISHES

- A. Finish shall be as specified within the hardware sets.
- B. Finish: BHMA 626/652 (US26D); except:
 - 1. Hinges at Exterior Doors: BHMA 630 (US32D)
 - 2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
 - 3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 - 4. Protection Plates: BHMA 630 (US32D)
 - 5. Overhead Stops and Holders: BHMA 630 (US32D)
 - 6. Door Closers: Powder Coat to Match
 - 7. Wall Stops: BHMA 630 (US32D)
 - 8. Latch Protectors: BHMA 630 (US32D)
 - 9. Weatherstripping: Clear Anodized Aluminum
 - 10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.1 GENERAL

- A. Make periodic checks during construction in order to ascertain that the finish hardware furnished has been installed correctly. After completion of all construction work, adjust finish hardware to work properly; test all keys and adjust as required for smooth, free operation.

3.2 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.
- C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- D. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.3 PREPARATION

- A. Ensure that walls and frames are square and plumb before hardware installation.
- B. The installer shall notify the Architect, in writing, of all unacceptable condition that could affect the proper operation of the finish hardware.
- C. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.

- D. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.
- E. Where on-site modification of doors and frames is required:
 - 1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
 - 2. Field modify and prepare existing doors and frames for new hardware being installed.
 - 3. When modifications are exposed to view, use concealed fasteners, when possible.
 - 4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
 - a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
 - b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
 - c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.4 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 - 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
 - 3. Furnish permanent cores to Owner for installation.

- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.

 - K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

 - L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

 - M. Closer/holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

 - N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.

 - O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

 - P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

 - Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

 - R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

 - S. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.
- 3.5 QUALITY ASSURANCE:
- A. After installation has been completed, the hardware supplier and manufacturer's representative for locksets, door closers, exit devices, and overhead stops shall check the project and verify compliance with installation instructions, adjustment of all hardware items, and proper application according to the approved hardware schedule. Hardware supplier shall submit a list of all hardware that has not been installed correctly.

 - B. After installation has been completed, the hardware supplier and manufacturer's representative shall meet with the owner to explain the functions, uses, adjustment, and maintenance of each item of hardware.

3.6 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.7 DEMONSTRATION:

- A. Demonstrate electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.8 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.
- D. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.9 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

3.10 HARDWARE SETS

- A. See Door Schedule in Drawings for Hardware Set assignments.
- B. Finish hardware manufacturer abbreviations (or approved equivalents):

Abbreviation	Name
FAL	Falcon
GLY	Glynn-Johnson Corp
IVE	H.B. Ives
LCN	LCN Commercial Division
SCE	Schlage Electronic Security
SCH	Schlage Lock Company
VON	Von Duprin
KAN	Kantec
ZER	Zero International Inc

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LEGEND:

-  Link to catalog cut sheet
-  Electrified Opening

Hardware Group No. 01-01 – NOT USED

Hardware Group No. 01-02 - CLASSROOM

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	MARBLE THRESHOLD	SEE THRESHOLD DETAILS			
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 01-02.1 - CLASSROOM

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 01-02.2 - CLASSROOM

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 01-03 - CLASSROOM

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 01-04 - CLASSROOM

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 01-05 - CLASSROOM

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	ND70TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 01-06 – NOT USED

Hardware Group No. 01-07 - NOT USED

Hardware Group No. 02-01 - EGRESS (STORAGE)

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	FIRE EXIT HARDWARE	F-25-C-EO		630	FAL
1	EA	FIRE EXIT HARDWARE	F-25-C-L-NL-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 02-02 - EGRESS (STORAGE)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-NL-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 02-03 - EGRESS (STORAGE)

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	FIRE EXIT HARDWARE	F-25-C-EO		630	FAL
1	EA	FIRE EXIT HARDWARE	F-25-C-L-NL-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 02-04 - NOT USED

Hardware Group No. 02-05 - NOT USED

Hardware Group No. 02-06 - NOT USED

Hardware Group No. 02-07 - EGRESS (PASSAGE)

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	CONT. HINGE	112HD (HEIGHT PER SCHEDULE)		628	IVE
2	EA	PANIC HARDWARE	25-V-L-BE-LBR-AVA		630	FAL
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	PILE PERIMETER SEAL	BY ALUMINUM DOOR MANUFACTURER		GRY	
2	EA	PILE MEETING STILE SEAL	BY ALUM DOOR MANUFACTURER			
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 02-08 - EGRESS (STORAGE)

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	FIRE EXIT HARDWARE	F-25-C-EO		630	FAL
1	EA	FIRE EXIT HARDWARE	F-25-C-L-NL-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	429AA-S (THREE SIDE OF THE FRAME)		AA	ZER
2	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	DOOR CONTACT	679-05		WHT	SCE

Hardware Group No. 02-09 - EGRESS (STOREROOM)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-NL-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	RAIN DRIP	142AA (WIDTH PER OVERALL FRAME WIDTH)		AA	ZER
1	EA	GASKETING	429AA-S (THREE SIDE OF THE FRAME)		AA	ZER
1	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	DOOR CONTACT	679-05	 ↗	WHT	SCE

Hardware Group No. 02-10 - EGRESS (STOREROOM)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-NL-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A HDP A		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	CRASH STOP	CS115 25 1/2"		626	IVE
1	EA	RAIN DRIP	142AA (WIDTH PER OVERALL FRAME WIDTH)		AA	ZER
1	EA	GASKETING	429AA-S (THREE SIDE OF THE FRAME)		AA	ZER
1	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	DOOR CONTACT	679-05	 ↗	WHT	SCE

Hardware Group No. 02-11 - EGRESS (STORAGE)

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	FIRE EXIT HARDWARE	F-25-V-EO-LBR		630	FAL
1	EA	FIRE EXIT HARDWARE	F-25-V-L-LBR-AVA		630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 02-12 - NOT USED

Hardware Group No. 03-01 - ENTRANCE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRANCE LOCK	ND53TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 03-02 - ENTRANCE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CENTER HUNG FLOOR CLOSER	J995BCN (WITH TOP PIVOT)		626	CRL
1	EA	OFFICE/ENTRY LOCK	L9050T 07A L583-363		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	LOCK PATCH FITTING	G.ML-SCH-L9050		626	ACC
1	EA	OH STOP	100S		630	GLY
1	EA	APPLIED STOP	AS18		626	IVE

Hardware Group No. 03-02.1 - ENTRANCE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CENTER HUNG FLOOR CLOSER	J995BCN (WITH TOP PIVOT)		626	CRL
1	EA	OFFICE/ENTRY LOCK	L9050T 07A L583-363		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	LOCK PATCH FITTING	G.ML-SCH-L9050		626	ACC
1	EA	APPLIED STOP	AS18		626	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE

Hardware Group No. 03-03 - ENTRANCE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRANCE LOCK	ND53TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 03-04 - ENTRANCE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRANCE LOCK	ND53TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 04-01 - OH DOOR

Provide each RU door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	BALANCE	BY OVERHEAD DOOR MANUFACTURER (SEE SPEC SECT 083323)			

Hardware Group No. 05-01 - PUSH/PULL

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD (HEIGHT PER SCHEDULE)		628	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	BOTTOM RAIL DEAD LOCK	MS1861-2			ADA
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	CYLINDER THUMB TURN	XB11-720			SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	LONG DOOR PULL	PR 9264F 72" N		630	IVE
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	PILE PERIMETER SEAL	BY ALUMINUM DOOR MANUFACTURER		GRY	
2	EA	PILE MEETING STILE SEAL	BY ALUM DR MANUFACTURER			
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 06-01 – NOT USED

Hardware Group No. 06-02 - PASSAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE SET	ND10S ATH		626	SCH
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 06-03 - PASSAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE SET	ND10S ATH		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 06-04 - PASSAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE SET	ND10S ATH		626	SCH
1	EA	SURFACE CLOSER	SC71A HDPA		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 07-01 - PRIVACY

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PRIVACY W/ DEADBOLT	L9440 07A L583-363 L283-722		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	MARBLE THRESHOLD	SEE THRESHOLD DETAILS (WIDTH PER SCHEDULE)			
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-01 - STORAGE

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S		630	GLY
			@ INACTIVE			
1	EA	SURFACE CLOSER	SC71A SS @ ACTIVE		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-02 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-02.1 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-03 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-03.1 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	SURFACE CLOSER	SC71A HDPA		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-04 - STORAGE

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S @ INACTIVE		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG) @ ACTIVE		689	FAL
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	SILENCER	SR64		GRY	IVE
2	EA	DOOR CONTACT	679-05		WHT	SCE

Hardware Group No. 08-05 - STORAGE

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S		630	GLY
			@ INACTIVE			
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
			@ ACTIVE			
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 08-06 - NOT USED

Hardware Group No. 08-07 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 08-08 – NOT USED

Hardware Group No. 08-09 - STORAGE

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	DOOR CONTACT	679-05		WHT	SCE

Hardware Group No. 08-10 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 08-11 - STORAGE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	SURFACE CLOSER	SC71A HDPA		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	CRASH STOP	CS115 25 1/2"		626	IVE
1	EA	RAIN DRIP	142AA (WIDTH PER OVERALL FRAME WIDTH)		AA	ZER
1	EA	GASKETING	429AA-S (THREE SIDE OF THE FRAME)		AA	ZER
1	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			

Hardware Group No. 08-12 - STORAGE

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5		630	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S		630	GLY
			@ INACTIVE			
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
			@ ACTIVE			
1	EA	THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08-13 - STORAGE

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	ND80TD ATH		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S		630	GLY
			@ INACTIVE			
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
			@ ACTIVE			
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. SEC01 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)	⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW			
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

Hardware Group No. SEC01.1 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)	⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	ALUMINUM THRESHOLD	SEE ARCHITECTS DETAIL			
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	BY SECURITY			
1	EA	CARD READER	BY SECURITY			
1	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED. (FAIL SECURE)
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC02 - ACCESS CONTROL

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	✎	652	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)	✎	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	@ INACTIVE SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✎	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
2	EA	DOOR CONTACT	679-05	✎	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED. (FAIL SECURE)
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.
8. COORDINATE CLOSER TEMPLATE WITH LOCATION OF FM CLEAN AGENT TANK. TEMPLATE CLOSER TO LIMIT DOOR OPENING TO 90 DEGREES OR AS REQUIRED.

Hardware Group No. SEC03 - ACCESS CONTROL (EXT. ALUMINUM ENTRANCE DOORS)

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD (HEIGHT PER SCHEDULE)		628	IVE
2	EA	POWER TRANSFER	EPT10		✂ 689	VON
1	EA	REMOVABLE MULLION	KR4954B STAB (DRILL AND TAP STRIKE)		SP28	VON
1	EA	ELEC PANIC HARDWARE	RX-25-R-EO		✂ 630	FAL
1	EA	ELEC PANIC HARDWARE	RX-FSE-25-R-L-AVA 24 VDC (FAIL SAFE)		✂ 630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	GASKETING	8770NBK PSA		BK	ZER
1	EA	PILE PERIMETER SEAL	BY ALUMINUM DOOR MANUFACTURER		GRY	
1	EA	PILE MEETING STILE SEAL	BY ALUMINUM DOOR MANUFACTURER			
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✂	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
2	EA	DOOR CONTACT	679-05		✂ WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.
8. MAIN ENTRY DOORS SHALL BE 'FREE' TO OPEN DURING USUAL BUSINESS HOURS

Hardware Group No. SEC03.1 - ACCESS CONTROL

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
2	EA	POWER TRANSFER	EPT10		✂ 689	VON
1	EA	REMOVABLE MULLION	KR4954B STAB (DRILL AND TAP STRIKE)		SP28	VON
1	EA	ELEC PANIC HARDWARE	RX-25-R-EO		✂ 630	FAL
1	EA	ELEC PANIC HARDWARE	RX-FSE-25-R-L-AVA 24 VDC (FAIL SAFE)		✂ 630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	GASKETING	8770NBK PSA		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✂	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
2	EA	DOOR CONTACT	679-05		✂ WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
1. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
2. COORDINATE WITH SECURITY FOR OPERATION.
3. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
4. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
5. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
6. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC04 - ACCESS CONTROL (EGRESS STAIRS)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC05 - ACCESS CONTROL

Provide each PR door(s) with the following:

QTY	EA	DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	✎	652	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	✎	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	COORDINATOR	COR X FL (WIDTH PER SCHED AND BRACKETS TO SUIT)		628	IVE
2	EA	OH STOP	90S		630	GLY
2	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
2	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	THRESHOLD	SEE ARCHITECTS DETAIL			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✎	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
2	EA	DOOR CONTACT	679-05	✎	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC06 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8		⚡ 652	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)		⚡ 626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05		⚡ WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC07 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	 ⚡	652	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	 ⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW			
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	 ⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC08 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	 ✎	652	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	 ✎	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✎	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	 ✎	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC09 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8		⚡ 652	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)		⚡ 626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A HDPA		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05		⚡ WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC10 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	EL MORTISE LOCK	L9095TDEL 07A CON 12/24 VDC (FAIL SAFE)	⚡	626	SCH
2	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
2	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
2	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. EGRESS/ACCESS BY CARD READER BOTH SIDES SHUNTING SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS AND UNLOCKING HARDWARE.
6. ACCESS BY KEY IN INSIDE/OUTSIDE CYLINDERS, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.

Hardware Group No. SEC11 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	 ⚡	652	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	 ⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW			
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	 ⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC12 - ACCESS CONTROL

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	COORDINATOR	COR X FL (WIDTH PER SCHED AND BRACKETS TO SUIT)		628	IVE
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	THRESHOLD	SEE THRESHOLD DETAILS			
2	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
2	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC13 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)	⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED. (FAIL SECURE)
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.
8. COORDINATE CLOSER TEMPLATE WITH LOCATION OF FM CLEAN AGENT TANK. TEMPLATE CLOSER TO LIMIT DOOR OPENING TO 90 DEGREES OR AS REQUIRED.

Hardware Group No. SEC14 - ACCESS CONTROL

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	⚡	652	IVE
1	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)	⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	@ INACTIVE SC71A SS		689	FAL
2	EA	KICK PLATE	@ ACTIVE 8400 10" X 2" LDW B-CS		630	IVE
2	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
2	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED. (FAIL SECURE)
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC15 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	 ⚡	652	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)	 ⚡	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW			⚡
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	 ⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED. (FAIL SECURE)
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC16 - ACCESS CONTROL (EGRESS STAIRS)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	POWER TRANSFER	EPT10	⚡	689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-FSA-F-25-R-L-AVA 24 VDC	⚡	630	FAL
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	PILE PERIMETER SEAL	BY ALUMINUM DOOR MANUFACTURER		GRY	
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	⚡	WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC17 - ACCESS CONTROL (EGRESS STAIRS)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	POWER TRANSFER	EPT10		⚡ 689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-EA-FSA-F-25-R-L-AVA 9-VOLT BATTERY WITH HARDWIRED OPTION		⚡ 630	FAL
2	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
2	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A SS		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	PILE PERIMETER SEAL	BY ALUMINUM DOOR MANUFACTURER		GRY	
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05		⚡ WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC18 - ACCESS CONTROL

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8		⚡ 652	IVE
1	EA	EU STOREROOM LOCK	ND80TDEU ATH RX 12V/24V DC (FAIL SECURE)		⚡ 626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX 36-083		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05		⚡ WHT	SCE

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED. (FAIL SECURE)
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC19 – NOT USED

Hardware Group No. SEC20 - ACCESS CONTROL (EGRESS STAIRS AT ROOF)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	POWER TRANSFER	EPT10		✂ 689	VON
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)		✂ 626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	WALL STOP	WS406/407CCV		626	IVE
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	429AA-S (THREE SIDE OF THE FRAME)		AA	ZER
1	EA	DOOR SWEEP	8193AA 36" (914MM)		AA	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✂	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05		✂ WHT	SCE

NOTE:

1. KEY TO BE ON THE STAIR SIDE. FREE EGRESS OFF THE ROOF AT ALL TIMES TO PREVENT SOMEONE GETTING STRANDED ON THE ROOF.

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC21 - ACCESS CONTROL (EGRESS STAIRS AT ROOF)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	POWER TRANSFER	EPT10		⚡ 689	VON
1	EA	ELEC PANIC HARDWARE	WPRX-98-L-M996-07-FS-WH		⚡ 630	VON
1	EA	RIM CYLINDER	20-057 ICX		626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	SURFACE CLOSER	SC71A (REG)		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	FLOOR STOP	FS436 X RISER TO SUIT		622	IVE
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	PILE MEETING STILE SEAL	BY ALUMINUM DOOR MANUFACTURER			
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		⚡	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05		⚡ WHT	SCE

NOTE:

1. KEY TO BE ON THE STAIR SIDE. FREE EGRESS OFF THE ROOF AT ALL TIMES TO PREVENT SOMEONE GETTING STRANDED ON THE ROOF.

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

Hardware Group No. SEC22 - ACCESS CONTROL (ROOFTOP LOBBY)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	✘	630	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	EL STOREROOM LOCK	ND80TDEL ATH RX 12V/24V DC (FAIL SAFE)	✘	626	SCH
1	EA	FSIC CORE	23-031 CKC EV29 T		626	SCH
1	EA	COORDINATOR	COR X FL (WIDTH PER SCHED AND BRACKETS TO SUIT)		628	IVE
2	EA	MOUNTING BRACKET	MB1F (SIZE PER WIDTH OF FRAME) WIDTH PER JAMB DEPTH		689	IVE
2	EA	SURFACE CLOSER	SC71A SS		689	FAL
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	MEETING STILE	328A BK-S (HEIGHT PER SCHEDULE)		BK	ZER
1	EA	GASKETING	488SBK PSA (THREE SIDE OF THE FRAME)		BK	ZER
1	EA	ALUMINUM THRESHOLD	SEE THRESHOLD DETAILS			
1	EA	POWER SUPPLY	SEE NOTE 1 BELOW			
1	EA	CARD READER	SEE NOTE 1 BELOW		✘	
1	EA	WIRE DIAGRAM	SEE NOTE 2 BELOW			
1	EA	DOOR CONTACT	679-05	✘	WHT	SCE

NOTE:

1. KEY TO BE ON THE LOBBY SIDE. FREE EGRESS OFF THE ROOF AT ALL TIMES TO PREVENT SOMEONE GETTING STRANDED ON THE ROOF.

ACCESS CONTROL OPERATIONAL DESCRIPTION NOTES:

1. SECURITY COMPONENTS SHALL BE FURNISHED AND CONFIGURED BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL PROVIDE INFRASTRUCTURE AND INSTALLATION OF SECURITY COMPONENT. REFER TO SECURITY DRAWINGS FOR ADDITIONAL SCOPE OF WORK INFORMATION AND REQUIREMENTS.
2. WIRE DIAGRAM PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH SECURITY FOR OPERATION.
4. DOOR NORMALLY CLOSED AND LOCKED (FAIL SAFE). TIE HARDWARE INTO THE FIRE DETECTION SYSTEM TO UNLOCK WHEN UNDER ALARM.
5. ALWAYS FREE EGRESS, REQUEST TO EXIT SWITCH TO SHUNT SIGNAL TO ACCESS CONTROL SYSTEM BY DOOR CONTACTS.
6. ACCESS BY KEY IN OUTSIDE CYLINDER, DOOR CONTACTS WILL SIGNAL ACCESS CONTROL SYSTEM OF FORCED ENTRY.
7. ACCESS BY VALID CREDENTIAL SHUNTING SIGNAL BY DOOR CONTACTS AND UNLOCKING HARDWARE.

END OF SECTION 087100