

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:
 - 1. Mechanical and electrified door hardware for:
 - a. Swinging doors.
 - b. Sliding doors.
- B. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:
 - 1. Windows
 - 2. Cabinets (casework), including locks in cabinets.
 - 3. Signage
 - 4. Toilet accessories
 - 5. Overhead doors
 - 6. Installation.
 - 7. Rough hardware.
 - 8. Conduit, junction boxes & wiring.
 - 9. Folding partitions, except cylinders where detailed.
 - 10. Sliding aluminum doors, except cylinders where detailed.
 - 11. Access doors and panels, except cylinders where detailed.
- C. Related Sections:
 - 1. Division 01 Section "Alternates" for alternates affecting this section.
 - 2. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
 - 3. Division 09 sections for touchup finishing or refinishing of existing openings modified by this section.
 - 4. Division 26 sections for connections to electrical power system and for low-voltage wiring.
 - 5. Division 28 sections for coordination with other components of electronic access control system.

1.3 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. ANSI - American National Standards Institute

1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

C. California Code of Regulations

1. Title 24: California Building Standards Code

1.4 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.

B. Action Submittals:

1. Product Data: Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
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: If requested by Architect, submit production sample or sample installations of each type of exposed hardware unit in finish indicated, and tagged with full description for coordination with schedule.
 - a. Samples will be returned to supplier in like-new condition. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:
 - a. Door Index; include door number, heading number, and Architects hardware set number.
 - b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
 - c. Type, style, function, size, and finish of each hardware item.
 - d. Name and manufacturer of each item.
 - e. Fastenings and other pertinent information.
 - f. Location of each hardware set cross-referenced to indications on Drawings.
 - g. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - h. Mounting locations for hardware.
 - i. Door and frame sizes and materials.
 - j. Name and phone number for local manufacturer's representative for each product.

- k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components). Operational description should include how door will operate on egress, ingress, and fire and smoke alarm connection.
 - 1) Submittal Sequence: Submit door hardware schedule 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 that is critical in Project construction schedule.
- 5. Key Schedule:
 - a. Initiate and conduct meeting(s) with Owner representatives and hardware supplier to determine system keyway(s), keybow styles, structure, stamping, degree of physical security and degree of geographic exclusivity. Furnish Owner's written approval of the system; do not order keys or cylinders without written confirmation of actual requirements from the Owner.
 - b. After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
 - c. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - d. 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.
 - e. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - f. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.
 - 1) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
- 6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory prepared for door hardware installation.
- C. Informational Submittals:
 - 1. Qualification Data: For Supplier and Installer.
 - 2. Product Certificates for electrified door hardware, signed by manufacturer:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - 3. Certificates of Compliance:
 - a. Electrified Hardware Coordination Conference Certification: Letter of compliance, signed by Contractor, attesting to completion of electrified hardware coordination conference, specified in "QUALITY ASSURANCE" article, herein.
 - 4. Warranty: Special warranty specified in this Section.
- 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. Name, address, and phone number of local representative for each manufacturer.
- d. Final approved hardware schedule, edited to reflect conditions as-installed.
- e. Final keying schedule
- f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
- g. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

1.5 QUALITY ASSURANCE

- A. Product Substitutions: Comply with product requirements stated in Division 01 and as specified herein.
 - 1. Where products indicate "acceptable manufacturers" or "acceptable manufacturers and products", provide product from specified manufacturers, subject to compliance with specified requirements and "Single Source Responsibility" requirements stated herein.
- B. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project.
 - 1. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 - 2. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
 - 3. Coordination Responsibility: Coordinate installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
 - a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.
- C. Installer Qualifications: Qualified tradesmen, skilled in application of commercial grade hardware with record of successful in-service performance for installing door hardware similar in quantity, type, and quality to that indicated for this Project.
- D. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
 - 1. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.
- E. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to 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.
- F. 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.
 - 1. Air Leakage Rate: 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.
- G. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.

- H. Means of Egress Doors: Latches do not require more than 5 lbs (67 N) to release latch. Locks do not require use of key, tool, or special knowledge for operation.
- I. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.
 - 1. Provide operating devices that do not require tight grasping, pinching, or twisting of wrist and that operate with force of not more than 5 lbs (22.2 N).
 - 2. Maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbs (22.2 N) applied perpendicular to door.
 - b. Sliding or Folding Doors: 5 lbs (22.2 N) applied parallel to door at latch.
 - c. Fire Doors: The minimum opening force allowable by the appropriate administrative authority, not to exceed 15 lbs (66.7N).
 - 3. Bevel raised thresholds with slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
 - 4. Adjust closer so that the time required to move the door from the 90 degree position to 12 degrees from the latch is 5 seconds minimum.
- J. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01.
 - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Inspect and discuss preparatory work performed by other trades.
 - 3. Inspect and discuss electrical roughing-in for electrified door hardware.
 - 4. Review sequence of operation for each type of electrified door hardware.
 - 5. Review required testing, inspecting, and certifying procedures.
- K. Coordination Conferences:
 - 1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
 - a. Attendees: Door hardware supplier, door hardware installer, Contractor.
 - b. After meeting, provide letter of compliance to Architect, indicating when meeting was held and who was in attendance.
 - 2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.
 - a. Attendees: electrified door hardware supplier, doors and frames supplier, electrified door hardware installer, electrical subcontractor, Owner, Owner's security consultant, Architect and Contractor.
 - b. After meeting, provide letter of compliance to Architect, indicating when coordination conference was held and who was in attendance.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.
- 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.

1. Deliver each article of hardware in manufacturer's original packaging.
- C. Project Conditions:
 1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
 2. Provide secure lock-up for door hardware delivered to Project, but not yet installed. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- D. Protection and Damage:
 1. Promptly replace products damaged during shipping.
 2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
 3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- E. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.7 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory 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. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.
- E. Existing Openings:
 1. Prior to submittal, carefully inspect existing conditions to verify finish hardware required to complete Work, including sizes, quantities, existing hardware scheduled for re-use, and sill condition material. If conflict between the specified/scheduled hardware and existing conditions, submit request for direction from Architect. Include date of jobsite visit in the submittal.
 2. Submittals prepared without thorough jobsite visit by qualified hardware expert will be rejected as non-compliant.
- F. Direct shipments not permitted, unless approved by Contractor.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 1. Warranty Period: Years from date of Substantial Completion, for durations indicated.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage PM Series: 5 years

- b) Schlage ND Series: 10 years
 - 2) Closers
 - a) LCN 4000 Series: 30 years
 - b) LCN 1460 Series: 30 years
 - 3) Automatic Operators
 - a) LCN: 2 years
 - b. Electrical Warranty
 - 1) Locks
 - a) Schlage: 2 years
2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.9 MAINTENANCE

A. Maintenance Tools:

1. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturer" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.
- B. 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.
- C. Hand of Door: Drawings show direction of slide, swing, or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
- 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.

2.2 MATERIALS

A. Fasteners

1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.

4. Install hardware with fasteners provided by hardware manufacturer.
- B. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.
 1. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
 2. Use materials which match materials of adjacent modified areas.
 3. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.
- C. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
 1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.3 HINGES

- A. Manufacturers and Products:
 1. Scheduled Manufacturer and Product: Ives 5BB series
 2. Acceptable Manufacturers and Products: Hager BB series, Stanley FBB Series
- B. Requirements:
 1. Provide five-knuckle ball bearing hinges conforming to ANSI/BHMA A156.1.
 2. 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
 3. 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
 4. 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
 5. 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.
 6. 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.
 7. 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
 8. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors, and 5 inches (127 mm) at 2 inches (51 mm) or thicker doors. Adjust hinge width as required for door, frame, and wall conditions to allow proper degree of opening.

9. Doors 36 inches (914 mm) wide or less furnish hinges 4-1/2 inches (114 mm) high; doors greater than 36 inches (914 mm) wide furnish hinges 5 inches (127 mm) high, heavy weight or standard weight as specified.
10. Provide hinges with electrified options as scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component.
11. Provide mortar guard for each electrified hinge specified.
12. Provide spring hinges where specified. Provide two spring hinges and one bearing hinge per door leaf for doors 90 inches (2286 mm) or less in height. Provide one additional bearing hinge for each 30 inches (762 mm) of additional door height.

2.4 ELECTRIC POWER TRANSFER

- A. Manufacturers:
 - a. Scheduled Manufacturer: Von Duprin EPT-10
 - b. Acceptable Manufacturers: ABH PT1000, Securitron CEPT-10
- B. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires sufficient to accommodate electric function of specified hardware.
- C. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.5 MORTISE LOCKS

- A. Manufacturers and Products:
 1. Scheduled Manufacturer and Product: Schlage PM series
- B. Requirements:
 1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3-hour fire doors.
 2. Indicators: Where specified, provide indicator window measuring a minimum 2-3/5-inch x 3/5 inch with 180-degree visibility. Provide messages color-coded using ANSI Z535 Safety Red with full text and/or symbols, as scheduled, for easy visibility. When applicable allows for lock status indication on both sides of the door.
 3. Provide locks manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance.
 4. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to "KEYING" article, herein.
 5. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1-inch (25 mm) throw, constructed of stainless steel.
 6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide switches and sensors integrated into the locks and latches.
 7. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide switches and sensors integrated into the locks and latches.
 - a. Universal input voltage – single chassis accepts 12 or 24VDC to allow for changes in the field without changing lock chassis.
 - b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case.

- c. Low maximum current draw – maximum 0.4 amps (lever control) to allow for multiple locks on a single power supply.
 - d. Low holding current – (lever control or latch retraction) maximum 1.0 amps to produce minimal heat, eliminate “hot levers” in electrically locked applications and motorized latch retraction applications and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
 - e. Connections – provide quick-connect Molex system standard.
9. Lever Trim: Pressure cast zinc, plated to match product finish specification, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
- a. Provide levers that return to within 1/2 inch (13 mm) of door face.
 - b. Lever Design: As specified in hardware sets

2.6 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: Schlage ND Series

B. Requirements:

- 1. Provide cylindrical locks conforming to the following standards and requirements:
 - a. ANSI/BHMA A156.2 Series 4000, Grade 1.
 - b. UL 10C for 4'-0" x 10'-0" 3-hour fire door.
- 2. Cylinders: Refer to “KEYING” article, herein.
- 3. Provide cylindrical locksets exceeding the ANSI/BHMA A156.2 Grade 1 performance standards for strength, security, and durability in the categories below:
 - a. Abusive Locked Lever Torque Test – minimum 3,100 inch-pounds without gaining access
 - b. Cycle life - tested to minimum 10 million cycles per ANSI/BHMA A156.2 Cycle Test with no visible lever sag or use of performance aids such as set screws or spacers.
- 4. 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.
- 5. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
- 6. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
- 7. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
- 8. Provide electrified options as scheduled in the hardware sets.
- 9. Lever Trim: Solid cast levers without plastic inserts, and wrought roses on both sides.
 - a. Lever Design: As scheduled.

2.7 LOCKSETS – INTERCONNECTED TYPE

- 1. Scheduled Manufacturer and Product: Schlage CS210 Series

B. Requirements:

1. Provide interlocked locksets conforming to ANSI/BHMA A156.12 Series 5000, Grade 2 with simultaneous retraction of deadbolt and latch for single motion egress. Cylinders: Refer to "KEYING" article, herein.
2. Provide locks with 2-3/8 inches (60 mm) or 2-3/4 inches (70 mm) backset, based on door detail, with 1/2-inch (13 mm) latch throw latchbolt and 1 inch (25 mm) throw deadbolt.
3. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
4. Provide manufacturers standard T-strike, unless extended lip strike is necessary to protect trim, and deadbolt strike.
5. Lever Design: As Scheduled

2.8 TUBULAR LOCKS – GRADE 2

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage F Series

B. Requirements:

1. Provide tubular locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2. Cylinders: Refer to "KEYING" article, herein.
2. Provide locks with standard 2-3/8 inches (60 mm) adjustable to 2-3/4 inches (70 mm) backset with 1/2 inch (13 mm) latch throw. Provide 2-3/4 inches (70 mm) backset, unless 2-3/8 inches (60 mm) is required by door or frame detail, or noted otherwise.
3. Provide locksets that fit standard 2-1/8 inches (54 mm) diameter bore without use of thru-bolts.
4. Standard Rose Size: 2-1/2 inches (64 mm) in diameter.
5. Door Thickness: Locksets adjustable to fit in 1-3/8 inches (35 mm) or 1-3/4 inches (44 mm) door thickness.
6. Provide standard T-strikes unless extended lip strikes are necessary to protect trim.
7. Lever Trim: Solid cast levers without plastic inserts, and wrought roses on both sides.

- a. Lever Design: Schlage Elan.

2.9 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage or Von Duprin PS900 series

B. Requirements:

1. Provide power supplies, recommended and approved by manufacturer of electrified locking component, for operation of electrified locks, electrified exit devices, magnetic locks, electric strikes, and other components requiring power supply.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply , and UL class 2 listed.
4. Options:
 - a. Provide power supply, where specified, with internal capability of charging sealed backup batteries 24 VDC, in addition to operating DC load.

- b. Provide sealed batteries for battery back-up at each power supply where specified.
 - c. Provide keyed power supply cabinet.
- 5. Provide power supply in an enclosure, complete, and requiring 120VAC to fused input.
 - 6. Provide power supply with emergency release terminals, where specified, that allow release of all devices upon activation of fire alarm system complete with fire alarm input for initiating "no delay" exiting mode.

2.10 CYLINDERS

A. Manufacturers:

- 1. Scheduled Manufacturer: Schlage

B. Requirements:

- 1. Provide cylinders/cores, from the same manufacturer of locksets, 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. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
 - a. Conventional Patented Open: cylinder with permanent interchangeable core with open keyway.
- 3. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent-protected until the year, 2029.
- 4. Nickel silver bottom pins.
- 5. Replaceable Construction Cores.
 - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - 1) 3 construction control keys
 - 2) 12 construction change (day) keys.
 - b. Owner or Owner's Representative will replace temporary construction cores with permanent cores.

2.11 KEYING

- A. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:

- 1. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - a. Master Keying system as directed by the Owner.
- 2. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements shall be cause for replacement of cylinders/cores involved at no additional cost to Owner.
- 3. Provide keys with the following features:
 - a. Material: Nickel silver; minimum thickness of .107-inch (2.3mm)

- b. Patent Protection: Keys and blanks protected by one or more utility patent(s) until the year, 2029.
- 4. Identification:
 - a. Mark permanent cylinders/cores and keys with applicable blind code per DHI publication "Keying Systems and Nomenclature" for identification. Blind code marks shall not include actual key cuts.
 - b. Identification stamping provisions must be approved by the Architect and Owner.
 - c. Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
 - d. Failure to comply with stamping requirements shall be cause for replacement of keys involved at no additional cost to Owner.
 - e. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
- 5. Quantity: Furnish in the following quantities.
 - a. Change (Day) Keys: 3 per cylinder/core.
 - b. Permanent Control Keys: 3.
 - c. Master Keys: 6.

2.12 KEY CONTROL SYSTEM

A. Manufacturers:

- 1. Scheduled Manufacturer: Telkee
- 2. Acceptable Manufacturers: HPC, 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.

2.13 DOOR CLOSERS

A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product: LCN 1460 series
- 2. Acceptable Manufacturers: Sargent 1331 series

B. Requirements:

- 1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory.
- 2. Provide door closers with fully hydraulic, full rack and pinion action cast iron cylinder.
- 3. Closer Body: 1-1/4 inch (32 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. Cylinder body to have "FAST" power adjust speed dial to visually indicate spring power.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and back-check.
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.

2.14 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 1261 series
2. Acceptable Manufacturers and Products: Corbin Russwin DC3000 series

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory.
2. Provide door closers with fully hydraulic, full rack and pinion action with cast iron cylinder.
3. Closer Body: 1-3/8-inch (35 mm) diameter with 5/8-inch (16 mm) diameter pinion journal diameter heat-treated pinion journal and full complement bearings.
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. Pressure Relief Valve (PRV) Technology: Not permitted.
7. Provide stick on and 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.

2.15 ELECTRO-MECHANICAL AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN Senior Swing
2. Acceptable Manufacturers: Stanley Access Technologies M-Force

B. Requirements:

1. Provide low energy automatic operator units that are electro-mechanical design complying with ANSI/BHMA A156.19.
 - a. Opening: Powered by DC motor working through reduction gears.
 - b. Closing: Spring force.
 - c. Manual, hydraulic, or chain drive closers: Not permitted.
 - d. Operation: Motor is off when door is in closing mode. Door can be manually operated with power on or off without damage to operator. Provide variable adjustments, including opening and closing speed adjustment.
 - e. Cover: Aluminum.

2. Provide units with manual off/auto/hold-open switch, push and go function to activate power operator, vestibule interface delay, electric lock delay, hold-open delay adjustable from 2 to 30 seconds, and logic terminal to interface with accessories, mats, and sensors.
3. Provide drop plates, brackets, or adapters for arms as required to suit details.
4. Provide hard-wired motion sensors and/or actuator switches for operation as specified. Provide weather-resistant actuators at exterior applications.
5. Provide key switches, with LED's, recommended and approved by manufacturer of automatic operator as required for function as described in operation description of hardware sets. Cylinders: Refer to "KEYING" article, herein.
6. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.
7. Provide units with inputs for smoke evacuation doors, where specified, which allow doors to power open upon fire alarm activation and hold open indefinitely or until fire alarm is reset, presence detector input, which prevents closed door from opening or door that is fully opened from closing, hold open toggle input, which allows remote activation for indefinite hold open and close second time input is activated, vestibule inputs, which allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.16 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Trimco

B. Requirements:

1. Provide push plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick and beveled 4 edges. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
2. Provide push bars of solid bar stock, diameter and length as scheduled. Provide push bars of sufficient length to span from center to center of each stile. Where required, mount back to back with pull.
3. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
4. Provide flush pulls as scheduled. Where required, provide back-to-back mounted model.
5. Provide pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
6. Provide pull plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick, beveled 4 edges, and prepped for pull. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
7. Provide wire pulls of solid bar stock, diameter and length as scheduled.
8. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

2.17 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Trimco

B. Requirements:

1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes of plates:
 - a. Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
 - b. Mop Plates: 4 inches (102 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
 - c. Armor Plates: 36 inches (914 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

2.18 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson
2. Acceptable Manufacturers: ABH

B. Requirements:

1. Provide heavy duty concealed mounted overhead stop or holder as specified for exterior and interior vestibule single acting doors.
2. Provide heavy duty concealed mounted overhead stop or holder as specified for double acting doors.
3. Provide heavy or medium duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide medium duty surface mounted overhead stop for interior doors and at any door that swings more than 140 degrees before striking wall, open against equipment, casework, sidelights, and where conditions do not allow wall stop or floor stop presents tripping hazard.
4. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.

2.19 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Trimco

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.
2. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.
3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop.

2.20 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer: Zero International

2. Acceptable Manufacturers: National Guard
- B. Requirements:
 1. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
 2. Size of thresholds:
 - a. Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width
 - b. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width
 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.

2.21 SILENCERS

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives
 2. Acceptable Manufacturers: 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.

2.22 DOOR VIEWERS

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives
 2. Acceptable Manufacturers: Trimco
- B. Provide appropriate door viewer for door type and rating with minimum of 180-degree view area.

2.23 LATCH PROTECTORS

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives
 2. Acceptable Manufacturers: Trimco
- B. Provide stainless steel latch protectors of type required to function with specified lock.

2.24 FINISHES

- A. Finish: BHMA 643e/716 (US11); except:
 1. Continuous Hinges: BHMA 710 (313AN)
 2. Push Plates, Pulls and Push Bars: BHMA 695 (SP313)
 3. Protection Plates: BHMA 695 (SP313)

4. Door Closers: Powder Coat to Match
5. Weatherstripping: Dark Bronze Anodized Aluminum
6. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.1 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.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- D. Existing frames and doors to be retrofitted with new hardware:
 1. Field-verify conditions and dimensions prior to ordering hardware. Fill existing hardware cut outs not being reused by the new hardware. Remove existing hardware not being reused, return to Owner unless directed otherwise.
 2. Remove existing floor closers not scheduled for reuse, fill cavities with non-shrinking concrete and finish smooth.
 3. Cut and weld existing steel frames currently prepared with 2.25 inch height strikes. Cut an approximate 8 inch section from the strike jamb and weld in a reinforced section to accommodate specified hardware's strike.
 4. Patch and weld flush filler pieces into existing door hardware preparations in steel doors and frames, leave surfaces smooth.

3.2 PREPARATION

- A. 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 door and frame 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.

3.3 INSTALLATION

- A. Mounting Heights: 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. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- B. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- H. Lock Cylinders: Install construction cores to secure building and areas during construction period.
 1. Replace construction cores with permanent cores as indicated in keying section.
- I. Wiring: Coordinate with Division 26, ELECTRICAL 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. Testing and labeling wires with Architect's opening number.
- J. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- K. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Closers shall not be visible in corridors, lobbies and other public spaces unless approved by Architect.
- L. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- M. 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.
 1. Coordination: Coordinate provision with the security systems provider to mitigate excessive or redundant purchase.
 2. Configuration: Provide least number of power supplies required to adequately serve doors with electrified door hardware.
- N. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- O. 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.
- P. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

- Q. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- R. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.
- S. Field-verify existing conditions and measurements prior to ordering hardware. Fill existing hardware cut outs not being used by the new hardware.
- T. Remove existing hardware not being reused. Tag and bag removed hardware, turn over to Owner.
- U. Where existing wall conditions will not allow door to swing using the scheduled hinges, provide wide-throw hinges and if needed, extended arms on closers.
- V. Provide manufacturer's recommended brackets to accommodate the mounting of closers on doors with flush transoms.

3.4 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 is allowed to 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 months after date of Substantial Completion, Installer shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.5 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.6 DEMONSTRATION

- A. Provide training for Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

3.7 DOOR HARDWARE SCHEDULE

- A. Locksets, exit devices, and other hardware items are referenced in the following hardware sets for series, type and function. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.
- B. Do not order material until submittal has been reviewed, stamped, and signed by Architect's door hardware consultant.

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C. Hardware Sets:

139346 OPT0442027 Version 1

BLDG 100

HW SET: 10

Door(s):

1	4	7	10	13
3	EA	HINGE	5BB1 4.5 X 4.5	 F643E/ IVE 716
1	EA	ENTRANCE LOCK	CS210-B60TD LON LAT PLY	 643e SCH
1	EA	FSIC CORE	23-030 EV29 S	643e SCH
1	EA	SURFACE CLOSER	1261 REG OR PA AS REQ	 695 LCN
1	EA	DOOR STOP	060	 F643E/ IVE 716
1	EA	GASKETING	9188BK PSA	 BK ZER
1	EA	DOOR SWEEP	9016VD	 D ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A ZER
1	EA	VIEWER	U698	 B643E/ IVE 716

PROVIDE ADDITIONAL DOOR VIEWER 42" AFF AT ACCESSIBLE UNITS.

HW SET: 11

Door(s):

2	5	8	11	14
1	EA	HINGE	1011RP 3.5 X 3.5, 3PK	 F716E IVE
1	EA	PRIVACY LOCK	F40 LAT	 716 SCH
1	EA	DOOR STOP	060	 F643E/ IVE 716

HW SET: 13

Door(s):

15

1	EA	PCKT TRACK & HDWE	100PDSC			JOH
1	EA	ADA Pocket Door Locks	1069FP		613	TRM

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HW SET: 14

Door(s):

3

6

9

12

HARDWARE BY DOOR MFR.

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Bakersfield

BLDG 200

HW SET: 10

Door(s):

1	4	7	10	13	17
20	23	26	29	32	35
38	41	44	46	48	50
3	EA	HINGE	5BB1 4.5 X 4.5	 F643E/ 716	IVE
1	EA	ENTRANCE LOCK	CS210-B60TD LON LAT PLY	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	SURFACE CLOSER	1261 REG OR PA AS REQ	 695	LCN
1	EA	DOOR STOP	060	 F643E/ 716	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	DOOR SWEEP	9016VD	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER
1	EA	VIEWER	U698	 B643E/ 716	IVE

PROVIDE ADDITIONAL DOOR VIEWER 42" AFF AT ACCESSIBLE UNITS.

HW SET: 11

Door(s):

2	5	8	11	14	18
21	24	27	30	33	36
39	42	45	47	49	51
1	EA	HINGE	1011RP 3.5 X 3.5, 3PK	 F716E	IVE
1	EA	PRIVACY LOCK	F40 LAT	 716	SCH
1	EA	DOOR STOP	060	 F643E/ 716	IVE

HW SET: 12

Door(s):

15					
1	EA	BYPASS HW KIT	134F/138F	313AN	JOH
1	EA	FLUSH PULL	221	 B643E/ 716	IVE

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HW SET: 13

Door(s):

16

43

1	EA	PCKT TRACK & HDWE	100PDSC
1	EA	ADA Pocket Door Locks	1069FP



JOH



613

TRM

HW SET: 14

Door(s):

3

6

9

12

19

22

25

28

31

34

37

40

HARDWARE BY DOOR MFR.

Project Homekey
Bakersfield

BLDG 300

HW SET: 01

Door(s):

1

6	EA	HINGE	5BB1 4.5 X 4.5 NRP	 B643E/ 716	IVE
1	EA	2-POINT FLUSH BOLT	3900M/W	 630	TRM
1	EA	STOREROOM LOCK	PM080T LONA	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	COORDINATOR	COR X FL	 711	IVE
2	EA	MOUNTING BRACKET	MB	 BLK	IVE
1	EA	SURFACE CLOSER	1461 RW/PA STD ST-3408 SPEC	 695	LCN
1	EA	SURFACE CLOSER	1461 SCUSH STD ST-3410 SPEC	 695	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	 695	IVE
1	EA	FLOOR STOP	FS18S/FS18L	 BLK	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	ASTRAGAL	43SP	 SP	ZER
2	EA	DOOR SWEEP	8197D	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER

HW SET: 02

Door(s):

2

3

4

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	 B643E/ 716	IVE
1	EA	STOREROOM LOCK	PM080T LONA	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	LOCK GUARD	LG1	 695	IVE
1	EA	SURFACE CLOSER	1461 REG OR PA AS REQ STD	 695	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	 695	IVE
1	EA	FLOOR STOP	FS18S/FS18L	 BLK	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	DOOR SWEEP	8197D	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER

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HW SET: 10

Door(s):

5	8	12	15	18	21
25					
3	EA	HINGE	5BB1 4.5 X 4.5	 F643E/ 716	IVE
1	EA	ENTRANCE LOCK	CS210-B60TD LON LAT PLY	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	SURFACE CLOSER	1261 REG OR PA AS REQ	 695	LCN
1	EA	DOOR STOP	060	 F643E/ 716	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	DOOR SWEEP	9016VD	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER
1	EA	VIEWER	U698	 B643E/ 716	IVE

PROVIDE ADDITIONAL DOOR VIEWER 42" AFF AT ACCESSIBLE UNITS.

HW SET: 11

Door(s):

6	9	10	13	16	19
22	23	26			
1	EA	HINGE	1011RP 3.5 X 3.5, 3PK	 F716E	IVE
1	EA	PRIVACY LOCK	F40 LAT	 716	SCH
1	EA	DOOR STOP	060	 F643E/ 716	IVE

HW SET: 13

Door(s):

14	27				
1	EA	PCKT TRACK & HDWE	100PDSC		JOH
1	EA	ADA Pocket Door Locks	1069FP	 613	TRM

HW SET: 14

Door(s):

7	11	17	20	24

HARDWARE BY DOOR MFR.

Project Homekey
Bakersfield

BLDG 400

HW SET: 01A

Door(s):

2

6	EA	HINGE	5BB1 4.5 X 4.5 NRP	 B643E/ 716	IVE
1	EA	2-POINT FLUSH BOLT	3900M/W	 630	TRM
1	EA	STOREROOM LOCK	PM080T LONA	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	COORDINATOR	COR X FL	 711	IVE
2	EA	MOUNTING BRACKET	MB	 BLK	IVE
2	EA	SURFACE CLOSER	1461 SCUSH STD ST-3410 SPEC	 695	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	 695	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	ASTRAGAL	43SP	 SP	ZER
2	EA	DOOR SWEEP	8197D	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER

HW SET: 02

Door(s):

5

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	 B643E/ 716	IVE
1	EA	STOREROOM LOCK	PM080T LONA	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	LOCK GUARD	LG1	 695	IVE
1	EA	SURFACE CLOSER	1461 REG OR PA AS REQ STD	 695	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	 695	IVE
1	EA	FLOOR STOP	FS18S/FS18L	 BLK	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	DOOR SWEEP	8197D	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER

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HW SET: 03

Door(s):

4

3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		B643E/ 716	IVE
1	EA	STOREROOM LOCK	PM080T LONA		643e	SCH
1	EA	FSIC CORE	23-030 EV29 S		643e	SCH
1	EA	LOCK GUARD	LG1		695	IVE
1	EA	SURFACE CLOSER	1461 REG OR PA AS REQ STD		695	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS		695	IVE
1	EA	FLOOR STOP	FS18S/FS18L		BLK	IVE
1	EA	GASKETING	9188BK PSA		BK	ZER
1	EA	DOOR SWEEP	8197D		D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED		A	ZER

HW SET: 05

Door(s):

3 10

3	EA	HINGE	5BB1HW 4.5 X 4.5		B643E/ 716	IVE
1	EA	POWER TRANSFER	EPT10		695	VON
1	EA	EU MORTISE LOCK	PM092TEU LONA RX 12/24 VDC		643e	SCH
1	EA	FSIC CORE	23-030 EV29 S		643e	SCH
1	EA	OH STOP	100S		643E/7 16	GLY
1	EA	SURFACE CLOSER	1461 ST-1974		695	LCN
1	EA	MOUNTING PLATE	1460-18 SRT		695	LCN
1	EA	GASKETING	9188BK PSA		BK	ZER
1	EA	DOOR SWEEP	8197D		D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED		A	ZER
1			CARD READER(S) BY ACCESS CONTROL VENDOR			
1			DOOR CONTACT(S) BY ACCESS CONTROL VENDOR			
1			POWER SUPPLY BY ACCESS CONTROL VENDOR			

OPERATION DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIALS TO THE READER WILL MOMENTARILY UNLOCK THE DOOR, ALLOWING ACCESS. FREE EGRESS AT ALL TIMES. UPON LOSS OF POWER, THE DOOR WILL REMAIN LOCKED AND WILL CONTINUE TO ALLOW FREE EGRESS.

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HW SET: 06

Door(s):

6

3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		B643E/ 716	IVE
1	EA	POWER TRANSFER	EPT10		695	VON
1	EA	EU MORTISE LOCK	PM092TEU LONA RX 12/24 VDC		643e	SCH
1	EA	FSIC CORE	23-030 EV29 S		643e	SCH
1	EA	LOCK GUARD	LG1		695	IVE
1	EA	SURFACE CLOSER	1461 REG OR PA AS REQ STD		695	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS		695	IVE
1	EA	FLOOR STOP	FS18S/FS18L		BLK	IVE
1	EA	GASKETING	9188BK PSA		BK	ZER
1	EA	DOOR SWEEP	8197D		D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED		A	ZER
1		CARD READER(S) BY ACCESS CONTROL VENDOR				
1		DOOR CONTACT(S) BY ACCESS CONTROL VENDOR				
1		POWER SUPPLY BY ACCESS CONTROL VENDOR				

OPERATION DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIALS TO THE READER WILL MOMENTARILY UNLOCK THE DOOR, ALLOWING ACCESS. FREE EGRESS AT ALL TIMES. UPON LOSS OF POWER, THE DOOR WILL REMAIN LOCKED AND WILL CONTINUE TO ALLOW FREE EGRESS.

Project Homekey
Bakersfield

HW SET: 07

Door(s):

13

2	EA	HINGE	5BB1HW 4.5 X 4.5		F643E/	IVE
					716	
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8		F643E/	IVE
					716	
1	EA	EU STOREROOM LOCK	ND80TDEU LON RX CON		643e	SCH
			12V/24V DC			
1	EA	FSIC CORE	23-030 EV29 S		643e	SCH
1	EA	SURFACE CLOSER	1461 REG OR PAAS REQ STD		695	LCN
1	EA	WALL STOP	WS406/407CVX		643E/7	IVE
			REQUIRES BACKING IN WALL		16	
1	EA	GASKETING	9188BK PSA		BK	ZER
1			CARD READER(S) BY ACCESS			
			CONTROL VENDOR			
1			DOOR CONTACT(S) BY ACCESS			
			CONTROL VENDOR			
1			POWER SUPPLY BY ACCESS			
			CONTROL VENDOR			

OPERATION DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIALS TO THE READER WILL MOMENTARILY UNLOCK THE DOOR, ALLOWING ACCESS. FREE EGRESS AT ALL TIMES. UPON LOSS OF POWER, THE DOOR WILL REMAIN LOCKED AND WILL CONTINUE TO ALLOW FREE EGRESS.

Project Homekey
Bakersfield

HW SET: 08

Door(s):

7	8	9	11	12
2	EA	HINGE	5BB1 4.5 X 4.5	 F643E/ IVE 716
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	 F643E/ IVE 716
1	EA	EU STOREROOM LOCK	ND80TDEU LON RX CON 12V/24V DC	 643e SCH
1	EA	FSIC CORE	23-030 EV29 S	643e SCH
1	EA	WALL STOP	WS406/407CVX REQUIRES BACKING IN WALL	 643E/7 IVE 16
1	EA	GASKETING	9188BK PSA	 BK ZER
1			CARD READER(S) BY ACCESS CONTROL VENDOR	
1			DOOR CONTACT(S) BY ACCESS CONTROL VENDOR	
1			POWER SUPPLY BY ACCESS CONTROL VENDOR	

OPERATION DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIALS TO THE READER WILL MOMENTARILY UNLOCK THE DOOR, ALLOWING ACCESS. FREE EGRESS AT ALL TIMES. UPON LOSS OF POWER, THE DOOR WILL REMAIN LOCKED AND WILL CONTINUE TO ALLOW FREE EGRESS.

HW SET: 09

Door(s):

14	15				
3	EA	HINGE	5BB1 4.5 X 4.5		F643E/ IVE 716
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	ND40S LON OS-OCC		643e SCH
1	EA	SURFACE CLOSER	1461 REG OR PAAS REQ STD		695 LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS		695 IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS		695 IVE
1	EA	WALL STOP	WS406/407CCV REQUIRES BACKING IN WALL		643E/7 IVE 16
1	EA	GASKETING	9188BK PSA		BK ZER

Project Homekey
Bakersfield

HW SET: 15

Door(s):

1

3	EA	HINGE	5BB1HW 4.5 X 4.5	 B643E/ 716	IVE
1	EA	CORRIDOR LOCK W/DEADBOLT	PM456T LONA L583-363	 643e	SCH
1	EA	FSIC CORE	23-030 EV29 S	643e	SCH
1	EA	OH STOP	100S	 643E/7 16	GLY
1	EA	SURFACE CLOSER	1461 ST-1974	 695	LCN
1	EA	MOUNTING PLATE	1460-18 SRT	 695	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	 695	IVE
1	EA	GASKETING	9188BK PSA	 BK	ZER
1	EA	DOOR SWEEP	8197D	 D	ZER
1	EA	THRESHOLD	8654A OR AS DETAILED	 A	ZER

END OF SECTION