

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. Section includes:

- 1. Mechanical and electrified door hardware for:
 - a. Swinging doors.
 - b. Sliding doors.
- 2. Electronic access control system components, including:
 - a. Electronic access control devices.
- 3. 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. 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

- 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.

1.03 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. Key Systems and Nomenclature

C. ANSI - American National Standards Institute

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

1.04 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.
2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, "EXAMINATION" article, herein.

B. Action Submittals:

1. Product Data: 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 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, 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. Quantity, 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 operational descriptions for: egress, ingress (access), and fire/smoke alarm connections.
 - 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. 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.
 - 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.
 - 1) 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.
6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory or shop prepared for door hardware installation.

C. Informational Submittals:

1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
2. Product data for electrified door hardware:

- 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. UL listings for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.
 - b. Installer Training Meeting Certification: Letter of compliance, signed by Contractor, attesting to completion of installer training meeting specified in "QUALITY ASSURANCE" article, herein.
 - c. 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. Factory order acknowledgement numbers (for warranty and service)
 - d. Name, address, and phone number of local representative for each manufacturer.
 - e. Parts list for each product.
 - f. Final approved hardware schedule, edited to reflect conditions as-installed.
 - g. Final keying schedule
 - h. Copies of floor plans with keying nomenclature
 - i. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
 - j. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

1.05 QUALITY ASSURANCE

- A. 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 and that provides certified Architectural Hardware Consultant (AHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
1. Warehousing Facilities: In Project's vicinity.
 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 3. 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.
 4. Coordination Responsibility: Assist in coordinating 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.

- B. Architectural Hardware Consultant Qualifications: 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:
 - 1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).
 - 2. Can provide installation and technical data to Architect and other related subcontractors.
 - 3. Can inspect and verify components are in working order upon completion of installation.
 - 4. Capable of producing wiring diagrams.
 - 5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.
- C. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
- D. 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 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.
- E. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- F. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.
- G. Keying Conference
 - 1. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - a. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - b. Preliminary key system schematic diagram.
 - c. Requirements for key control system.
 - d. Requirements for access control.
 - e. Address for delivery of keys.
- H. Pre-installation Conference
 - 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.
- I. 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.

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.

1.06 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. 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 to manufacturer of key control system for subsequent delivery to Owner.
- F. Deliver keys to Owner by registered mail or overnight package service.

1.07 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. 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. 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.

1.08 WARRANTY

- A. 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: Beginning from date of Substantial Completion, for durations indicated.
 - a. Closers:
 - 1) Mechanical: Falcon SC series, 10 years
 - b. Exit Devices:
 - 1) Mechanical: 3 years.
 - c. Locksets:
 - 1) Mechanical: Falcon, 10 years.
 - d. Continuous Hinges: Lifetime warranty.
 - e. Key Blanks: Lifetime
 - 2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.09 MAINTENANCE

- A. Maintenance Tools: Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. 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.
- 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. 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.

2.02 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. 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.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Ives 5BB series.
2. Acceptable Manufacturers and Products: Hager BB series, McKinney T4B series, Stanley FBB Series.

B. Requirements:

1. Provide 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. 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
7. 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.

8. 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.

2.04 CONTINUOUS HINGES

A. Aluminum Geared

1. Manufacturers:

- a. Scheduled Manufacturer: Ives.
- b. Acceptable Manufacturers: Select, Stanley.

2. Requirements:

- a. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
- b. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
- c. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
- d. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
- e. On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
- f. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware.
- g. Install hinges with fasteners supplied by manufacturer.
- h. 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.

2.05 PIVOT SETS

A. Manufacturers:

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

B. Requirements:

1. Provide pivot sets complete with oil-impregnated top pivot, unless indicated otherwise.
2. Where offset pivots are specified, Provide one intermediate pivot for doors less than 91 inches (2311 mm) high and one additional intermediate pivot per leaf for each additional 30 inches (762 mm) in height or fraction thereof. Intermediate pivots spaced equally not less than 25 inches (635 mm) or not more than 35 inches (889 mm) on center, for doors over 121 inches (3073 mm) high.
3. Provide appropriate model where pivot sets are scheduled at fire rated openings.
4. Provide lead-lined model where pivot sets are specified at lead-lined doors.
5. Provide pivots with electrified options as scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware. Locate electrified pivot nearest to electrified locking component. If manufacturer of

electrified locking component requires another device for power transfer then provide recommended power transfer device and appropriate quantity of pivots.

6. Provide mortar guard for each electric pivot specified, unless specified in hollow metal frame specification.

2.06 FLUSH BOLTS

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.07 COORDINATORS

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

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.

2.08 LOCKSETS – INTERCONNECTED TYPE

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon H2 series.
2. Acceptable Manufacturers and Products: Schlage CS210 series, Yale YH Collection™.

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: Falcon Latitude.

2.09 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon T series.
2. Acceptable Manufacturers and Products: Corbin-Russwin CL3300 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: Falcon Latitude.

2.10 CYLINDRICAL LOCKS – GRADE 2

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon W series.
2. Acceptable Manufacturers and Products: Corbin-Russwin CL3800 series.

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2, 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. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: Falcon Latitude.

2.11 AUXILIARY LOCKS

A. Deadbolts:

1. Manufacturers and Products:

- a. Scheduled Manufacturer and Product: Falcon D100 Series.
- b. Acceptable Manufacturers and Products: Schlage B600 Series, Sargent 480 Series.

2. Requirements:

- a. Provide deadbolt series conforming to ANSI/BHMA A156 and function as specified.
- b. Cylinders: Refer to "KEYING" article, herein.
- c. Provide deadbolts with standard 2-3/4 inches (70 mm) backset. Provide 2-3/8 inches (60 mm) where noted or if door or frame detail requires. Provide deadbolt with full 1 inch (25 mm) throw, constructed of steel alloy.
- d. Provide manufacturer's standard strike.

B. Sliding Door Locks:

1. Manufacturers and Products:

- a. Scheduled Manufacturer and Product: Accurate 2001 Series.
- b. Acceptable Manufacturers and Products: No Substitute.

2. Requirements:

- a. Provide mortise sliding door lock series and function as specified.
- b. Cylinders: Refer to "KEYING" article, herein.
- c. Provide mortise sliding door locks with standard 2-3/4 inches (70 mm) backset.
- d. Provide manufacturer's standard strike.

C. Pocket Door Locks:

1. Manufacturers and Products:

- a. Scheduled Manufacturer and Product: Accurate 2002 Series.
- b. Acceptable Manufacturers and Products: No Substitute.

2. Requirements:

- a. Provide mortise pocket door lock series and function as specified.
- b. Cylinders: Refer to "KEYING" article, herein.
- c. Provide mortise pocket door lock with standard 2-3/4 inches (70 mm) backset.
- d. Provide manufacturer's standard strike.

2.12 EXIT DEVICES – BAR TYPE

A. Manufacturer and Product:

- 1. Scheduled Manufacturer: Von Duprin 55/88 series.
- 2. Acceptable Manufacturers and Products: Corbin-Russwin ED7000/ED3000 series, Sargent 90 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 bar type exit devices, cast or forged of brass, bronze, or stainless steel, plated to standard architectural finishes to match balance of the door hardware.
4. Latch Bolt Throw: 3/4 inch (19 mm) for rim and mortise devices, 5/8 inch (16 mm) for surface and concealed vertical rod devices.
5. Mechanism Case: One piece without cover plate. Mount 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.
6. Provide UL labeled fire exit devices for fire rated openings.
7. Provide manufacturer's standard strikes.
8. Provide exit devices cut to door width and height. Locate exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
9. 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.
10. Provide electrified options as scheduled in the hardware sets.
11. Furnish all necessary wood door kits and cover plates, for proper installation of exit device.
12. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
 - a. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

2.13 ELECTRIC STRIKES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Von Duprin 6000 Series.
2. Acceptable Manufacturers and Products: Folger Adam 300 Series.

B. Requirements:

1. Provide electric strikes designed for use with type of locks shown at each opening.
2. Provide electric strikes UL Listed as burglary-resistant.
3. Where required, provide electric strikes UL Listed for fire doors and frames.
4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

2.14 ROLLER LATCHES

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Requirements:

1. Provide roller latches with 4-7/8 inches (124 mm) strike at single doors to fit ANSI frame prep. If dummy levers are used in conjunction with roller latch mount roller latch at a height as to not interfere with proper mounting and height of dummy lever.
2. Provide roller latches with 2-1/4 inches (57 mm) full lip strike at pair doors. Mount roller in top rail of each leaf per manufacturer's template.

2.15 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer: Falcon.

B. Requirements:

1. Provide permanent and interchangeable cylinders/cores compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.

C. Construction Keying:

1. 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.

2.16 KEYING

- ### A. Provide cylinders/cores 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 will 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. Do not provide blind code marks with 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 will 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.

2.17 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.

2.18 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon SC70A series.
2. Acceptable Manufacturers and Products: 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.

2.19 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Falcon SC80A series.
2. Acceptable Manufacturers and Products: 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 with aluminum 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.
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.

2.20 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

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.

2.21 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

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

2.22 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson.
2. Acceptable Manufacturers: Rixson, Sargent.

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.

2.23 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

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.

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

A. Manufacturers:

1. Scheduled Manufacturer: Zero International.
2. Acceptable Manufacturers: National Guard, Reese.

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. 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. 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
4. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

2.25 MAGNETIC HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: LCN.
2. Acceptable Manufacturers: Rixson, Sargent.

B. Requirements:

1. Provide wall or floor mounted electromagnetic door release as specified with minimum of 25 pounds of holding force. Coordinate projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully open. Connect magnetic holders on fire-rated doors into the fire control panel for fail-safe operation.

2.26 MAGNETIC CATCHES

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Engineered Products Company, Rockwood.

B. Requirements:

1. Provide magnetic catches with self-aligning magnets that can be surface mounted or mortised.
2. Provide magnetic catches in an aluminum case 1 inch wide x 3-1/8 inch long. Provide dual triple pole (Ives 327), where scheduled, with 14 pound load capacity, and dual double pole catches (Ives 326), where scheduled, with 9 pound load capacity.

2.27 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer: Schlage.
2. Acceptable Manufacturers: GE-Interlogix, 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.

2.28 DOOR VIEWERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Provide appropriate door viewer for door type and rating with minimum of 180-degree view area.

2.29 BARN DOOR HARDWARE

A. Manufacturers:

1. Scheduled Manufacturer: National Hardware.
2. Acceptable Manufacturers: No substitute.

B. Requirements:

1. Provide complete sets of sliding door hardware as recommended by manufacturer for door type and weight.

- a. Include track, channels, brackets, hangers, fasteners, guides, pulls, stops, and other hardware as required for complete installation.

2.30 BY-PASS DOOR HARDWARE

A. Manufacturers:

1. Scheduled Manufacturer: Johnson Hardware.
2. Acceptable Manufacturers: No substitute.

B. Requirements:

1. Provide complete sets of by-pass door hardware as recommended by manufacturer for door type and weight.
 - a. Include track, hangers, fasteners, guides, cup pulls, stops, and other hardware as required for complete installation.

2.31 POCKET DOOR HARDWARE

A. Manufacturers:

1. Scheduled Manufacturer: Johnson Hardware
2. Acceptable Manufacturers: No substitute.

B. Requirements:

1. Provide complete sets of pocket door hardware as recommended by manufacturer for door type and weight.
 - a. Include track, hangers, fasteners, guides, stops, and other hardware as required for complete installation.

2.32 FINISHES

A. Finish: BHMA 626/652 (US26D); except:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Continuous Hinges: BHMA 630 (US32D)
3. Continuous Hinges: BHMA 628 (US28)
4. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
5. Protection Plates: BHMA 630 (US32D)
6. Overhead Stops and Holders: BHMA 630 (US32D)
7. Door Closers: Powder Coat to Match
8. Wall Stops: BHMA 630 (US32D)
9. Latch Protectors: BHMA 630 (US32D)
10. Weatherstripping: Clear Anodized Aluminum
11. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 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.

3.02 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. 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. Mount closers so they are not 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.
- 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.

3.03 FIELD QUALITY CONTROL

- A. Engage qualified manufacturer trained representative to perform inspections and to prepare inspection reports.
1. Representative will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.04 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 to six months after date of Substantial Completion, Installer's Architectural Hardware Consultant must examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.05 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.

3.06 DOOR HARDWARE SCHEDULE

- A. Hardware items are referenced in the following hardware. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.
- B. Hardware Sets:

END OF SECTION

Cannery Trail Residences

HARDWARE GROUP NO. 1

For use on Door #(s):

112.A 115.C 115.D B06.A U20

HARDWARE GROUP NO. 2

For use on Door #(s):

U08

Provide each PD door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	POCKET DOOR HW KIT	1500	AL	JOH
1	EA	SPRING LOADED EDGE PULL	2000	626	ACC
2	EA	FLUSH PULL	955	626	IVE

HARDWARE SUPPLIER SHALL PROVIDE ALL COMPONENTS REQUIRED FOR INSTALLATION OF POCKET DOOR HARDWARE. INCLUDE TRACK, PIVOTS, BALL-BEARING HANGERS, HINGES, FASTENERS, GUIDES AND ALL OTHER COMPONENTS REQUIRED FOR INSTALLATION.

HARDWARE GROUP NO. 3

For use on Door #(s):

U09 U10

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PIVOT SET	7255J SET	626	IVE
1	EA	ROLLER LATCH	RL30A	626	IVE
1	EA	PERIMETER EDGE SEAL	34AA	AA	ZER
1	EA	CABINET HARDWARE	CL12	626	IVE
1	EA	CABINET HARDWARE	CL14	626	IVE

HARDWARE GROUP NO. 4

For use on Door #(s):

U05 U06 U07

Provide each BP door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	BY-PASSING TRACK AND HARDWARE KIT	138F	626	JOH
2	EA	FLUSH PULL	955	626	IVE

HARDWARE SUPPLIER SHALL PROVIDE ALL COMPONENTS REQUIRED FOR INSTALLATION OF BY-PASSING/SLIDING DOOR HARDWARE. INCLUDE TRACK, PIVOTS, BALL-BEARING HANGERS, HINGES, FASTENERS, GUIDES AND ALL OTHER COMPONENTS REQUIRED FOR INSTALLATION.

Cannery Trail Residences

HARDWARE GROUP NO. 5

For use on Door #(s):

U11 U12.A U12.B

Provide each BD door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	PLAIN BOX RAIL	5114 NATIONAL HARDWARE		
1	SET	BOX RAIL HANGERS	5055		
1	SET	SINGLE BOX RAIL	DP51MBC		
		BRACKETS			
2	EA	FLUSH PULL	955	626	IVE

HARDWARE SUPPLIER SHALL PROVIDE ALL COMPONENTS REQUIRED FOR INSTALLATION OF BARN DOOR HARDWARE. INCLUDE TRACK, PIVOTS, BALL-BEARING HANGERS, HINGES, FASTENERS, GUIDES, TRACK STOPS AND ALL OTHER COMPONENTS REQUIRED FOR INSTALLATION.

Cannery Trail Residences

HARDWARE GROUP NO. 6

For use on Door #(s):

108.B 111.B 112.B 115.B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	55-NL-OP-110MD-SNB	626	VON
1	EA	RIM CYLINDER	951	626	FAL
1	EA	ELECTRIC STRIKE	6300 FSE 12/24 VAC/VDC	630	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 10" STD	630-316	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	TOP RAIL DROP	SC70-18PA	689	FAL
		PLATE			
1	EA	CUSH SHOE	SC70-30	689	FAL
		SUPPORT			
1	EA	BLADE STOP	SC70-61	689	FAL
		SPACER			
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	625A-V3-223	A	ZER
1	EA	CREDENTIAL	FURNISHED, COMMISSIONED	BLK	SCE
		READER	AND INSTALLED BY DIV. 28		
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1		WIRE HARNESS	CON (VERIFY LENGTH AND		SCH
			QUANTITY REQUIRED)		
1			PROVIDE FACTORY POINT TO		
			POINT WIRING DIAGRAMS		
1	EA	NOTE	WEATHERSTRIP BY		
			DOOR/FRAME MANUFACTURER		

OPERATIONAL DESCRIPTION: CREDENTIAL READER DEVICE IS TO RELEASE THE ELECTRIC STRIKE ALLOWING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE EGRESS IS ALWAYS AVAILABLE.

ITEMS TO BE PROVIDED BY THE DIVISION 28 SUPPLIER:

CREDENTIAL READER DEVICE. REQUIRED POWER AND WIRING TO THE CREDENTIAL READER DEVICE, ELECTRIC STRIKE AND THE DOOR POSITION SWITCH.

Cannery Trail Residences

HARDWARE GROUP NO. 7

For use on Door #(s):

100.B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	55-NL-OP-110MD-SNB	626	VON
1	EA	RIM CYLINDER	951	626	FAL
1	EA	ELECTRIC STRIKE	6300 FSE 12/24 VAC/VDC	630	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 10" STD	630-316	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	TOP RAIL DROP	SC70-18PA	689	FAL
		PLATE			
1	EA	BLADE STOP	SC70-61	689	FAL
		SPACER			
1	EA	CUSH SHOE	SC70-30	689	FAL
		SUPPORT			
1	EA	CREDENTIAL	FURNISHED, COMMISSIONED	BLK	SCE
		READER	AND INSTALLED BY DIV. 28		
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1			PROVIDE FACTORY POINT TO		
			POINT WIRING DIAGRAMS		
1	EA	NOTE	WEATHERSTRIP BY		
			DOOR/FRAME MANUFACTURER		
1		WIRE HARNESS	CON (VERIFY LENGTH AND		SCH
			QUANTITY REQUIRED)		

OPERATIONAL DESCRIPTION: CREDENTIAL READER DEVICE IS TO RELEASE THE ELECTRIC STRIKE ALLOWING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE EGRESS IS ALWAYS AVAILABLE.

ITEMS TO BE PROVIDED BY THE DIVISION 28 SUPPLIER:

CREDENTIAL READER DEVICE. REQUIRED POWER AND WIRING TO THE CREDENTIAL READER DEVICE, ELECTRIC STRIKE AND THE DOOR POSITION SWITCH.

Cannery Trail Residences

HARDWARE GROUP NO. 8

For use on Door #(s):

105 113.A 115A

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	T581P LAT	626	FAL
1	EA	ELECTRIC STRIKE	6211 FSE CON 12/16/24/28 VAC/VDC	630	VON
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	CREDENTIAL READER	FURNISHED, COMMISSIONED AND INSTALLED BY DIV. 28	BLK	SCE
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1		WIRE HARNESS	CON (VERIFY LENGTH AND QUANTITY REQUIRED)		SCH

OPERATIONAL DESCRIPTION: CREDENTIAL READER DEVICE IS TO RELEASE THE ELECTRIC STRIKE ALLOWING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE EGRESS IS ALWAYS AVAILABLE.

ITEMS TO BE PROVIDED BY THE DIVISION 28 SUPPLIER:

CREDENTIAL READER DEVICE. REQUIRED POWER AND WIRING TO THE CREDENTIAL READER DEVICE, ELECTRIC STRIKE AND THE DOOR POSITION SWITCH.

Cannery Trail Residences

HARDWARE GROUP NO. 9

For use on Door #(s):

B09

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	T581P LAT	626	FAL
1	EA	ELECTRIC STRIKE	6211 FSE CON 12/16/24/28 VAC/VDC	630	VON
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	CREDENTIAL READER	FURNISHED, COMMISSIONED AND INSTALLED BY DIV. 28	BLK	SCE
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1		WIRE HARNESS	CON (VERIFY LENGTH AND QUANTITY REQUIRED)		SCH
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		

OPERATIONAL DESCRIPTION: CREDENTIAL READER DEVICE IS TO RELEASE THE ELECTRIC STRIKE ALLOWING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE EGRESS IS ALWAYS AVAILABLE.

ITEMS TO BE PROVIDED BY THE DIVISION 28 SUPPLIER: CREDENTIAL READER DEVICE. REQUIRED POWER AND WIRING TO THE CREDENTIAL READER DEVICE, ELECTRIC STRIKE AND THE DOOR POSITION SWITCH.

HARDWARE GROUP NO. 10

For use on Door #(s):

100.A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PUSH/PULL BAR	9190EZHD-10"-NS	630-316	IVE
1	EA	SURFACE CLOSER	SC71A SS	689	FAL
1	EA	CUSH SHOE SUPPORT	SC70-30	689	FAL
1	EA	TOP RAIL DROP PLATE	SC70-18PA	689	FAL
1	EA	BLADE STOP SPACER	SC70-61	689	FAL
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	625A-V3-223	A	ZER
1	EA	NOTE	WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		

Cannery Trail Residences

HARDWARE GROUP NO. 11

For use on Door #(s):

B06.B

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	T101 LAT	626	FAL
1	EA	SURFACE CLOSER	SC71A DEL RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE

HARDWARE GROUP NO. 12

For use on Door #(s):

113.B

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	T101 LAT	626	FAL
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE

HARDWARE GROUP NO. 13

For use on Door #(s):

201 204 206 301 303 306
B01 B13

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	PASSAGE SET	T101 LAT	626	FAL
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HARDWARE GROUP NO. 14

For use on Door #(s):

108.A 111.A

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	PASSAGE SET	T101 LAT	626	FAL
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

Cannery Trail Residences

HARDWARE GROUP NO. 15

For use on Door #(s):

107

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	PASSAGE SET	T101 LAT	626	FAL
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	BK	ZER

HARDWARE GROUP NO. 16

For use on Door #(s):

101A 101B

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	T101 LAT	626	FAL
1	EA	SURFACE CLOSER	SC71A HDP	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	FIRE/LIFE WALL MAG	SEM7800 SERIES AS REQUIRED	689	LCN
1	EA	GASKETING	488SBK PSA	BK	ZER
1		PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS			

OPERATIONAL DESCRIPTION: DOOR NORMALLY HELD OPEN BY MAGNETIC HOLDER.
MAGNETIC HOLDER TO BE CONNECTED TO BUILDING'S FIRE/SMOKE ALARM SYSTEM.
MAGNETIC HOLD OPEN SHALL RELEASE IMMEDIATELY UPON ACTIVATION OF BUILDING'S
FIRE/SMOKE ALARM SYSTEM ALLOWING DOOR TO CLOSE.

HARDWARE GROUP NO. 17

For use on Door #(s):

U12

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	BY PREHUNG DOOR MANUFACTURER	652	BYO
1	EA	PASSAGE SET	W101S LAT	626	FAL
1	EA	DOOR STOP	63/70 AS REQUIRED	A26D	IVE

Cannery Trail Residences

HARDWARE GROUP NO. 18

For use on Door #(s):

U03

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	BY PREHUNG DOOR MANUFACTURER	652	BYO
1	EA	PASSAGE SET	W101S LAT	626	FAL
1	EA	DOOR STOP	63/70 AS REQUIRED	A26D	IVE
1	EA	ROLLER BUMPER	RB471 -WHERE REQUIRED	626	IVE

HARDWARE GROUP NO. 19

For use on Door #(s):

114

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	PRIVACY LOCK	T301S LAT	626	FAL
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HARDWARE GROUP NO. 20

For use on Door #(s):

U02

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	BY PREHUNG DOOR MANUFACTURER	652	BYO
1	EA	PRIVACY LOCK	W301S LAT	626	FAL
1	EA	DOOR STOP	63/70 AS REQUIRED	A26D	IVE

HARDWARE GROUP NO. 21

For use on Door #(s):

104

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	ENTRY / OFFICE LOCK	T511P LAT	626	FAL
1	EA	WALL STOP	WS406/407CCV	630	IVE

Cannery Trail Residences

HARDWARE GROUP NO. 22

For use on Door #(s):

115 B07 B08

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	T581P LAT	626	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE

HARDWARE GROUP NO. 23

For use on Door #(s):

B11

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	T581P LAT	626	FAL
1	EA	OH STOP & HOLDER	90F J	630	GLY
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE

HARDWARE GROUP NO. 24

For use on Door #(s):

B03 B04 B05

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	W581P LAT	626	FAL
1	EA	OH STOP & HOLDER	90F J	630	GLY
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE

HARDWARE GROUP NO. 25

For use on Door #(s):

B10 B12

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	630	IVE
1	EA	PASSAGE SET	T101 LAT	626	FAL
1	EA	SURFACE CLOSER	SC71A RW/PA	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE

Cannery Trail Residences

HARDWARE GROUP NO. 26

For use on Door #(s):

109 110

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	T581P LAT	626	FAL
1	EA	SURFACE CLOSER	SC81A RW/PA PROVIDE MTG BRKT, SPCR & PLATE AS REQ	689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HARDWARE GROUP NO. 27

For use on Door #(s):

203 205 304 305

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	SET	CONST LATCHING BOLT	FB51P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	T581P LAT	626	FAL
1	EA	COORDINATOR	COR X FL X MB AS REQUIRED	628	IVE
2	EA	SURFACE CLOSER	SC81A DS	689	FAL
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	GASKETING	322A-S	A	ZER

HARDWARE GROUP NO. 28

For use on Door #(s):

U01.1&2 U01.3

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	BY PREHUNG DOOR MANUFACTURER	652	BYO
1	EA	PASSAGE SET	W101S LAT	626	FAL
1	EA	SGL CYL X TURN DB	D141P	626	FAL
1	EA	DOOR STOP	63/70 AS REQUIRED	A26D	IVE
1	EA	WEATHER STRIPPING	BY PREHUNG DOOR MANUFACTURER		BYO

Cannery Trail Residences

HARDWARE GROUP NO. 29

For use on Door #(s):

U01

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	SPRING HINGE	3SP1 4.5 X 4.5	652	IVE
1	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ENTRANCE LOCK	H2101P LAT	626	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	DOOR STOP	63/70 AS REQUIRED	A26D	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	VIEWER	U698	626	IVE

HARDWARE GROUP NO. 30

For use on Door #(s):

U13

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	BY PREHUNG DOOR MANUFACTURER	652	BYO
2	EA	SINGLE DUMMY TRIM	W12 LAT	626	FAL
2	EA	ROLLER LATCH	RL30A	626	IVE
2	EA	DOOR STOP	63/70 AS REQUIRED	A26D	IVE