SECTION 087100

DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.

B. This Section includes the following:
   1. Hinges
   2. Continuous hinges
   3. Key control system
   4. Lock cylinders and keys
   5. Lock and latch sets
   6. Bolts
   7. Exit devices
   8. Push/Pull units
   9. Closers
   10. Overhead holders
   11. Miscellaneous door control devices
   12. Door trim units
   13. Protection plates
   14. Weatherstripping for exterior doors
   15. Sound stripping for interior doors
   16. Automatic drop seals (door bottoms)
   17. Astragals or meeting seals on pairs of doors
   18. Thresholds

C. Products furnished but not installed under this Section to include:
   1. Cylinders for locks on entrance doors.
   2. Final replacement cores and keys to be installed by Owner.

1.3 SYSTEM DESCRIPTION

A. Refer to applicable “Headings” for system description for electric and electro-pneumatic hardware products.

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification sections.
B. Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements. For items other than those scheduled in the "Headings" of Section 3, provide catalog information for the specified items and for those submitted.

C. Final hardware schedule coordinated with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
   1. Final Hardware Schedule Content: Based on hardware indicated, organize schedule into vertical format "hardware sets" indicating complete designations of every item required for each door or opening. Use specification Heading numbers with any variations suffixed a, b, etc. Include the following information:
      a. Type, style, function, size, and finish of each hardware item.
      b. Name and manufacturer of each item.
      c. Fastenings and other pertinent information.
      d. Location of each hardware set cross-referenced to indications on Drawings both on floor plans and in door and frame schedule.
      e. Explanation of all abbreviations, symbols, and codes contained in schedule.
      f. Mounting locations for hardware.
      g. Door and frame sizes and materials.
      h. Keying information.
      i. Cross-reference numbers used within schedule deviating from those specified.
         1) Column 1: State specified item and manufacturer.
         2) Column 2: State prior approved substituted item and its manufacturer.
   2. Furnish complete wiring diagrams, riser diagrams, elevation drawings and operational descriptions of electrical components and systems, listed by opening in the hardware submittals. Elevation drawings shall identify locations of the system components with respect to their placement in the door opening. Operational descriptions shall fully detail how each electrical component will function within the opening, including all conditions of ingress and egress. Provide a copy with each hardware schedule submitted for approval. Supply a copy with delivery of hardware to the jobsite and another copy to the Owner at the time of project completion.
   3. Submittal Sequence: Submit final schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work that is critical in the Project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by door hardware, and other information essential to the coordinated review of schedule.
   4. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.

D. Samples of each type of exposed hardware unit in finish indicated and tagged with full description for coordination with schedule. Submit samples prior to submission of final hardware schedule.
   1. Samples will be returned to the supplier. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated in the Work, within limitations of keying coordination requirements.
E. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

F. Contract closeout submittals:
   1. Operation and maintenance data: Complete information for installed door hardware.
   2. Warranty: Completed and executed warranty forms.

1.5 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer.

B. Supplier Qualifications: A recognized architectural door hardware supplier, with warehousing facilities within 100 mile radius of Dekalb County Georgia, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced Architectural Hardware Consultant (AHC) who is available for consultation to Owner, Architect, and Contractor, at reasonable times during the course of the Work.

C. Coordination Meetings:
   1. Contractor shall set up and attend the following:
      a. Lock distributor to meet with the Owner to finalize lock functions and keying requirements and to obtain final instructions in writing.
      b. Lock distributor and lock, closer and exit device manufacturer to meet with the installer prior to beginning of installation of door hardware. Instruct installer on proper installation of specified products.
   2. General Contractor shall set up and attend the following:
      a. Meet with the Owner, General Contractor, Supplier, electrical and security contractors to coordinate all electrical hardware items. Supplier to provide riser diagrams, elevation drawings, wiring diagrams and operational descriptions as required by the General and sub-contractors.

D. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and tested by UL or Warnock Hersey for given type/size opening and degree of label. Provide proper latching hardware, door closers, approved-bearing hinges and seals whether listed in the Hardware Schedule or not. All hardware shall comply with standards UL 10C.
   1. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors’ UL labels indicating “Fire Door to be equipped with Fire Exit Hardware”) provide UL label on exit devices indicating “Fire Exit Hardware”.
   2. All work to existing fire rated doors is to be in compliance with NFPA 80. If work is required that does not comply with NFPA 80 it is to be reported to the Architect before bids are submitted.

E. All hardware is to comply with Federal and State Handicap laws.
1.6 PRODUCT HANDLING

A. Tag each item or package separately with identification related to final hardware schedule, and include basic installation instructions with each item or package.

B. Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two or more identical sets may be packed in same container.

C. Inventory door hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.

D. Deliver individually packaged door hardware items promptly to place of installation (shop or Project site).

E. Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

1.7 WARRANTY

A. Special warranties:
   1. Door Closers: Ten year period
   2. Exit Devices: Three year period
   3. Automatic Door Operators: Two year period
   4. Locks and Cylinders: Three year period

1.8 MAINTENANCE

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

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS

(*Denotes manufacturer referenced in the Hardware Headings)

A. Hinges:
   1. Acceptable manufacturers:
      a. Stanley
      b. Bommer
      c. Hager*
      d. McKinney
      e. Lawrence
   2. Characteristics:
      a. Templates: Provide only template-produced units.
b. Screws: Provide Phillips flat-head screws complying with the following requirements:
1) For metal doors and frames install machine screws into drilled and tapped holes.
2) For wood doors and frames install threaded-to-the-head wood screws.
3) For fire-rated wood doors install #12 x 1-1/4 inch, threaded-to-the-head steel wood screws.
4) Finish screw heads to match surface of hinges or pivots.

c. Hinge pins: Except as otherwise indicated, provide hinge pins as follows:
1) Out-Swing Exterior Doors: Non-removable pins.
2) Out-Swing Corridor Doors with Locks: Non-removable pins.
3) Interior Doors: Non-rising pins.
4) Tips: Flat button and matching plug. Finished to match leaves.

d. Size: Size hinges in accordance with specified manufacturer's published recommendations.

e. Quantity: Furnish one pair of hinges for all doors up to 5'-0" high. Furnish one hinge for each additional 2-1/2 feet or fraction thereof.

B. Continuous Hinges:
1. Acceptable manufacturers:
   a. Hager/Roton
   b. Select Products*
   c. Markar
   d. Zero
2. Characteristics:
   a. Continuous gear hinges to be manufactured of extruded 6063-T6 aluminum alloy with anodized finish, or factory painted finish as scheduled.
   b. All hinges are to be manufactured to template. Uncut hinges shall be non-handed and shall be a pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising.
   c. Vertical door loads shall be carried on chemically lubricated polyacetal thrust bearings. The door and frame leaves shall be continually geared together for the entire hinge length and secured with a full cover channel. Hinge to operate to a full 180°.
   d. Hinges to be milled, anodized and assembled in matching pairs.
   e. Provide UL listed continuous hinges at fire doors. Continuous hinges at fire doors (suffix -FR) shall meet the required ratings without the use of auxiliary fused pins or studs.

C. Cylinders:
1. Acceptable manufacturers:
   a. Best Access Systems* (Match Existing)
2. Characteristics:
   a. Best Access Systems representative to coordinate permanent keying with DCSS representative.
   b. Master keys and sub master keys to be delivered directly to the General Contractor by Best Access Systems.
   c. Contractor to arrange for installation of permanent cores.
   d. Contractor to arrange and pay for:
      1) Permanent cores.
      2) Key box, which may be new or may include additional capacity for existing key box, as directed by General Maintenance.
3) Set up of permanent keys in key box.
4) All additional work and performed by Best Access Systems.

3. Equip locksets and cylinders with patent protected, small format 7-pin interchangeable cores (SFIC) with stainless steel blocking pin chamber to check for patented feature on keys. Provide a minimum of 7-pins, nickel silver tumblers. Cores must allow for applications of multiplex keying capabilities and multiple keyways, combined to Owner’s instructions.

4. Permanent cores to be keyed by the manufacturer, combined in sets master keyed or grand master keyed as directed by the Owner. Permanent keys and cores to be stamped with the applicable key mark for identification. These visual key control (VKC) marks or codes will not include the actual key cuts. Permanent keys to be stamped “DO NOT DUPLICATE”. Key and core stamping to be approved by Owner. Failure to properly comply with these requirements may be cause for replacement of all or any part of the cores and keys involved, as deemed necessary by the Owner and at no additional cost to the Owner.

5. Equip locks with cylinders for small format 7-pin interchangeable core pin tumbler inserts. Furnish only temporary inserts for the construction period and remove these when directed.

6. Permanent cores and keys are to be delivered from the manufacturer to the General Contractor.

7. Ship keys via registered carrier, clearly marked with project name, to General Contractor of record.
   a. Permanent cores to be installed by factory representative of Best Access Systems one week before project completion. The General Contractor to coordinate with the Owner and hardware supplier. Comply with Owner’s instructions for master keying and, except as otherwise indicated, provide individual change key for each lock that is not designated to be keyed alike with a group of related locks.

8. Permanently inscribe each key with number of lock that identifies cylinder manufacturer’s key symbol and the notation “DO NOT DUPLICATE”.

9. Key Quantity: Furnish 4 change keys for each cylinder, 6 master keys for each master system, 6 sub master keys for each system, 10 construction master keys and 2 control keys for interchangeable core series.

D. Locksets, Latchsets, Deadbolts:
   1. Acceptable manufacturers:
      a. Best* (Match Existing owner’s standard)
   2. PROVIDE LOCK COVER KITS AS NEEDED FOR PROPER INSTALLATION OF LOCKS INTO EXISTING DOORS. PROVIDE SPECIAL STRIKES WHERE REQUIRED.
   3. Mortise Locksets and Latchsets: as scheduled. Field verify type of lockset required to fit existing door and frame preps. If existing doors have cylindrical locks provide locks to match.
      a. Chassis: Cold-rolled steel, handing field-changeable without disassembly.
      b. Latchbolts: 3/4-inch throw stainless steel anti-friction type.
      c. Lever Trim: Through-bolted, accessible design, cast or solid rod lever as scheduled. Spindles: Independent break-away.
      d. Thumbturns: Accessible design not requiring pinching or twisting motions to operate.
      e. Deadbolts: Stainless steel 1-inch throw.
      f. Electric operation: Manufacturer-installed continuous duty solenoid.
      g. Strikes: 16 gage curved stainless steel, bronze or brass with 1" deep box construction, lips of sufficient length to clear trim and protect clothing.
      h. Scheduled Lock Series and Design: Best 45H series, 15J design.
4. Extra Heavy Duty Cylindrical Locks and Latches: as scheduled, fastened with through-bolts.
   a. Chassis: Cylindrical design, corrosion-resistant plated cold-rolled steel.
   b. Locking Spindle: Stainless steel, interlocking design.
   d. Lever Trim: Accessible design, independent operation, spring-cage supported, minimum 2” clearance from lever mid-point to door face.
   e. Rosettes: Minimum 3-7/16” diameter for coverage of ANSI/DHI A115.18, 1994 door preparation, through-bolt lugs on both spring cages to fully engage this pattern.
   f. Springs: Full compression type.
   g. All locks to accept Best SFIC cylinder cores.
   h. Strikes: 16 gage curved steel, bronze or brass with 1” deep box construction, lips of sufficient length to clear trim and protect clothing.
   i. Basis of Design: Best 15D design.
   j. Certifications:
      1) ANSI A156.2, 1994, Series 4000, Grade 1. Tested to exceed 3,000,000 cycles.
      2) UL listed for A label single doors up to 4 ft x 8 ft.

E. Exit Devices:
1. Acceptable manufacturers:
   a. Von Duprin 99 series* (Match Existing and owner’s standard)

2. Characteristics:
   a. Exit devices shall be "UL" listed for life safety. All exit devices for fire rated openings shall have "UL" labels for "Fire Exit Hardware."
   b. All exit devices mounted on labeled wood doors shall be mounted on the door per the door manufacturer’s requirements.
   c. All trim shall be thru-bolted to the lock stile case. Lever design to match locksets.
   d. All exit devices shall be made of brass, bronze, stainless steel, or aluminum material, powder coated, anodized, or plated to the standard architectural finishes to match the balance of the door hardware.
   e. Provide glass bead conversion kits to shim exit devices on doors with raised glass beads.
   f. All exit devices shall be one manufacturer. No deviation will be considered.
   g. All exit devices shall be non-handed. Touchpad shall extend a minimum of 1/2 of the door width. Plastic touchpads are not acceptable. All latchbolts to be the deadlocking type. Latchbolts shall have a self-lubricating coating to reduce wear. Plated or plastic coated latchbolts are not acceptable. Plastic linkage and “dogging” components are not acceptable.
   h. Lever trim shall be solid case material with a break-away feature to limit damage to the unit from vandalism.
   i. Surface vertical rod devices shall be UL labeled for fire door applications without the use of bottom rod assemblies. Where bottom rods are required for security applications, the devices shall be UL labeled for fire doors applications with rod and latch guards by the device manufacturer.

F. Closers and Door Control Devices:
1. Acceptable manufacturers:
   a. LCN 4041 XP X METAL COVERS (Match Existing)
   b. FireMark/Rixson with metal covers
2. Characteristics:
   a. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder.
   b. All closers shall utilize a stable fluid withstanding temperature range of 120°F to -30°F without seasonal adjustment of closer speed to properly close the door. Closers for fire-rated doors shall be provided with temperature stabilizing fluid that complies with standards UBC 7-2 (1997) and UL 10C.
   c. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Spring power adjustment allows for quick and accurate power adjustment located on closer spring tube. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed and back check.
   d. All closers shall have solid forged steel main arms (and forearms for parallel arm closers) and where specified shall have a cast-in solid stop on the closer shoe (Cush). All parallel arm mounted closers shall have “EDA” type arms or, where door travel on out-swing doors must be limited, use “PS” type closers. Auxiliary stops are not required when “SCush or Cush” type closers are used. Provide drop plates, shoe supports and mounting brackets as required.
   e. All closers (overhead, surface and concealed) shall be of one manufacturer and carry manufacturer’s ten year warranty (electric closers to have two year warranty).
   f. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped provide adjustable units complying with ADA and ANSI A-117.1 provisions for door opening force.
   g. Closers to be installed to allow door swing as shown on plans. Doors swinging into exit corridors shall provide for corridor clear width as required by code. Where possible, mount closers inside rooms.
   h. Low energy operators shall be as scheduled.
   i. Electro-magnetic door holders shall be as scheduled. Provide extensions were needed for door to make proper contact with armature. Doors to swing to max hold-open point.

G. Overhead Door Holders:
   1. Acceptable manufacturers:
      a. Glynn Johnson*
      b. Rixson Firemark
   2. Characteristics:
      a. Provide (heavy duty and/or medium duty and/or light duty) door holders (concealed and/or surface mounted) of brass, bronze or stainless steel.
      b. Concealed holders to be installed with the jamb bracket mortised flush with the bottom of the jamb. The arm and channel to be mortised into the door.
      c. Surface holders to be installed with the jamb bracket mounted on the stop.

H. Floor Stops and Wall Bumpers:
   1. Acceptable manufacturers:
      a. Hager
b. Ives*
c. Rockwood Manufacturing

2. Characteristics: Refer to Hardware Headings.

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

J. Push Plates:
1. Acceptable manufacturers:
   a. Hager
   b. Ives*
   c. Rockwood Manufacturing
d. Trimco
e. Burns
2. Characteristics:
   a. Exposed Fasteners: Provide manufacturers standard exposed fasteners.
   b. Material to be wrought/extruded/forged, brass/ bronze /aluminum/stainless steel, per the Hardware Headings.
   c. Provide plates sized as shown in Hardware Headings.

K. Door Pulls & Pull Plates:
1. Acceptable manufacturers:
   a. Hager
   b. Ives*
   c. Rockwood Manufacturing
d. Trimco
e. Burns
2. Characteristics:
   a. Provide concealed thru-bolted trim on back to back mounted pulls, but not for single units.
b. Material to be extruded forged/ cast, brass/ bronze/ aluminum/ stainless steel.

c. Provide units sized as shown in Hardware Headings.

L. Push Pull Sets:
1. Acceptable manufacturers:
   a. Hager
   b. Ives*
   c. Rockwood Manufacturing
   d. Trimco
   e. Burns
2. Characteristics:
   a. Provide mounting systems as shown in hardware sets.
   b. Material to be (description - i.e. solid rod, tubular, cast etc.). Brass/bronze aluminum/stainless steel.
   c. Provide Push/Pull sets sized as shown in Hardware Headings.

M. Protective Plates:
1. Acceptable manufacturers:
   a. Hager
   b. Ives*
   c. Rockwood Manufacturing
   d. Trimco
   e. Burns
2. Characteristics:
   a. Provide manufacturers standard exposed fasteners for door trim units consisting of either machine screws or self-tapping screws.
   b. Materials:
      1) Metal Plates: Stainless Steel, .050 inch (U.S. 18 gage).
   c. Fabricate protection plates not more than 2 inches less than door width on push side and not more than 1 inch less than door width on pull side.
   d. Heights:
      1) Kick plates to be 8 inches in height.
      2) Mop plates to be 8 inches in height.
      3) Armor plates to be 36 inches in height. Armor plates on fire doors to comply with NFPA 80.

N. Thresholds:
1. Acceptable manufacturers:
   a. National Guard Products, Inc.*
   b. Reese Industries
   c. Zero Weatherstripping Co., Inc.
2. Types: Indicated in Hardware Headings.

O. Door Seals/Gasketing:
1. Acceptable manufacturers:
   a. National Guard Products, Inc.*
   b. Reese Industries
   c. Zero Weatherstripping Co., Inc.
   d. Pemko
2. Types: Indicated in Hardware Headings.

P. Silencers:
1. Acceptable manufacturers:
   a. Hager
   b. Ives*
c. Rockwood Manufacturing
2. Three for each single door; two for each pair of doors. Omit at doors with seals.

Q. Key Cabinet and System:
1. Acceptable manufacturers:
   a. Telkee, Inc. (Key/core type
2. Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150 percent of the number of locks required for the project.
   a. Provide complete cross index system set up by Best Lock, and place keys on markers and hooks in the cabinet as determined by the final key schedule.
   b. Provide hinged-panel type cabinet for wall mounting.

2.2 MATERIALS AND FABRICATION
A. Manufacturer’s Name Plate: Do not use manufacturers’ products that have manufacturer’s name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise acceptable to Architect.
1. Manufacturer’s identification will be permitted on rim of lock cylinders only.

B. Base Metals: Produce hardware units of basic metal and forming method indicated, using manufacturer’s standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI/BHMA A156 series standards for each type of hardware item and with ANSI/BHMA A156.18 for finish designations indicated. Do not furnish “optional” materials or forming methods for those indicated, except as otherwise specified.

C. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
1. Do not provide hardware that has been prepared for self-tapping sheet metal screws, except as specifically indicated.
2. Furnish screws for installation with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including “prepared for paint” surfaces to receive painted finish.
3. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners.
4. Use thru-bolts for installation of all exit devices, closers, and overhead stops. Coordinate with wood doors and metal doors and frames where thru-bolts are used, as a means of reinforcing the work, provide sleeves for each thru-bolt.

2.3 HARDWARE FINISHES
A. Match items to the manufacturer’s standard color and texture finish for the latch and lock sets (or push-pull units if no latch or lock sets).
B. Provide finishes that match those established by ANSI or, if none established, match the Architect’s sample.

C. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer’s standards, but in no case less than specified by referenced standards for the applicable units of hardware.

D. Provide protective lacquer coating on all exposed hardware finishes of brass, bronze, and aluminum, except as otherwise indicated. The suffix “-NL” is used with standard finish designations to indicate "no lacquer."

E. The designations used to indicate hardware finishes are those listed in ANSI/BHMA A156.18, "Materials and Finishes," including coordination with the traditional U.S. finishes shown by certain manufacturers for their products.

1. Hinges (Exterior): 630 (US32D) Satin Stainless Steel
2. Hinges (Interior wood doors): 652 (US26D) Satin Chrome Plated Steel
4. Flush Bolts: 626 (US26D) Satin Chrome Plated Brass/Bronze
6. Exit Devices: US26D.
7. Door Closers: 689 Powder Coat Aluminum
8. Push Plates: 630 (US32D) Satin Stainless Steel
9. Pull Plates: 630 (US32D) Satin Stainless Steel
10. Protective Plates: 630 (US32D) Satin Stainless Steel
11. Door Stops: 626 (US26D) Satin Chrome Plated Brass/Bronze
12. Overhead Holders: 630 Satin Stainless Steel and 689 Powder Coated Steel (as scheduled)

PART 3 - EXECUTION

3.1 INSTALLATION

A. Mount hardware units at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.

1. "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.
2. "Recommended Locations for Builders Hardware for Custom Steel Doors and Frames" by the Door and Hardware Institute.

B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.

C. Set units level, plumb, and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

D. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
E. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements specified in Division 7 Section “Joint Sealers”.

F. Weatherstripping and Seals: Comply with manufacturer’s instructions and recommendations to the extent installation requirements are not otherwise indicated.

3.2 ADJUSTING, CLEANING, AND DEMONSTRATING

A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.

1. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to function properly with final operation of heating and ventilating equipment.

B. Clean adjacent surfaces soiled by hardware installation.

C. Door Hardware Manufacturer’s Field Service:

1. Prior to project completion, representatives of the lock, exit device and overhead closer manufacturers shall inspect and certify that all units are installed in accordance with the manufacturer’s instructions, and are regulated properly and functioning correctly.

2. A written report of the inspection results and recommendations shall be provided to the Architect and shall include the appropriate certificates.

3.3 HARDWARE SCHEDULE

GENERAL NOTES:

1. FIELD VERIFY ALL EXISTING HARDWARE PREPS. SIZE HINGES AND HINGE WEIGHT TO MATCH EXISTING PREP ON FRAME.

2. WHERE THERE ARE EXISTING PIVOTS AND FLOOR CLOSERS, REMOVE FLOOR CLOSER AND FILL CAVITY WITH CONCRETE. CUT JAMB PORTION (AND DOOR PORTION IF REUSING EXISTING DOOR) OFF OF EXISTING PIVOT AND USE AS FILLER ON FRAME. CAULK AND PAINT FRAME. PROVIDE 7 INCH WIDE THRESHOLD TO COVER FLOOR CLOSER.

3. PROVIDE TYPE OF LOCKSET TO FIT EXISTING DOOR PREP. ALL NEW LOCKS ARE TO BE BEST LEVER TYPE AS SCHEDULED. PROVIDE LOCK COVER KITS AS NEEDED FOR PROPER INSTALLATION OF LOCKS INTO EXISTING DOORS. PROVIDE SPECIAL STRIKES WHERE REQUIRED.

4. INSTALL NEW FRAME SILENCER ON ALL EXISTING FRAMES UNLESS SEALS ARE SCHEDULED.

5. PROVIDE NEW FLOOR STOPS OR WALL BUMPERS AT ALL DOOR AS REQUIRED.

6. PLUG ANY UNUSED HOLES IN EXISTING FRAMES OR DOORS AS REQUIRED BY NFPA-80.

7. ALL NEW DOORS ARE TO BE SIZED TO ACCEPT SCHEDULED HINGES. TOLLERANCES SHALL COMPLY WITH NFPA-80.
HW SET: 01
DOOR NUMBER:
97 97.2

EACH TO HAVE:
1 EA LOCKSET 45H 7AB 15J BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 02
DOOR NUMBER:
97.1

EACH TO HAVE:
1 EA LOCKSET 45H 7TD 15J BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 03
DOOR NUMBER:
97.3 97.14 99.8

EACH TO HAVE:
1 EA LOCKSET 93K 7D 15D BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 04
DOOR NUMBER:
97.4 97.7 99.7 99.11 99.12 307.3 360.9 96.35 96.67 412

EACH TO HAVE:
1 EA PRIVACY LOCKSET 93K OL 15D BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 05
DOOR NUMBER:

EACH TO HAVE:
1 EA LOCKSET 93K 7AB 15D BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.
HW SET: 05A
DOOR NUMBER:
400.12A  400.12B  400.13

EACH TO HAVE:
1 EA LOCKSET 45H 7AB 15J  BES

PREP AND PATCH EXISTING DOOR AS NEEDED.
CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 06
DOOR NUMBER:
97.9

EACH TO HAVE:
1 EA CYLINDER 1E74 AS REQ  BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 07
DOOR NUMBER:
97.10A  97.10B  97.11A  97.11B  97.16A  97.16B

EACH TO HAVE:
1 CONTINUOUS HINGE SL24HD  SEL
1 LOCKSET 93K 7R 15D  BES
1 CLOSER 4041 XP EDA MC X SNB 180 DEG  LCN
1 KICKPLATE 8400  IVE
1 MOP PLATE 8400  IVE
1 WALL STOP/HOLDER WS495  IVE
1 SET SEALS 5020  NGP

HW SET: 08
DOOR NUMBER:
97.16C  98.2A  99.9B  99.16B  100.5B  301B  302B  303B  303.5  303.6  304.1
307.1A  307.1B  308.1  309C  309.1  309.2  353B  355B  360.1B  360.1.0  361.1B
366B  368  368.1A  368.1B  370  371  372  96.2  96.3  96.4A  96.4B  370.1  96.7
204B  205B  206.2B  206.3  403B  403.1  96.21  96.22  96.23A  96.23B  96.25  96.26
96.27  96.28  96.29  96.32  96.33  96.36  96.37  96.38A  96.39A  96.40  96.51  96.53
96.55  96.56  96.58  96.59  96.63  96.64  96.65

EACH TO HAVE:
1 EA LOCKSET 93K 7R 15D  BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.
HW SET: 08A
DOOR NUMBER:
360.3  307.4  204.6

EACH TO HAVE:
1  EA  LOCKSET  93K 7D 15D  BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 09
DOOR NUMBER:
98A  98B

EACH TO HAVE:
6  HINGES  BB1168 (MATCH EXIST)  HGR
2  EXIT DEVICES  99L-F X SNB  VON
2  CYLINDERS  1E72  BES
2  CLOSERS  4041 XP EDA MC X SNB 180 DEG  LCN
2  KICKPLATES  8400  IVE
2  WALL BUMPERS  WS407CCV  IVE
1  SET SEALS  5020  NGP

EXISTING FIXED MULLION
HW SET: 10
DOOR NUMBER:
98C

EACH TO HAVE:
2  CONTINUOUS HINGES  112HD  SEL
1  EXIT DEVICE  99NL X SNB  VON
1  EXIT DEVICE  99DT X SNB  VON
1  MULLION  KR4954 X 154  VON
1  CYLINDER  1E72  BES
2  CLOSERS  4041 XP SCUSH MC X SNB  LCN
1  THRESHOLD  425  NGP
1  SET SEALS  MFG STD  NGP
2  SWEEPS  C607A  NGP
1  MULLION SEAL  5100  NGP

NOTE: WIDE STILE DOOR WITH 8" TOP RAIL AND 10" BOTTOM RAIL. REPAIR EXISTING FRAME AS NOTED.
HW SET: 11
DOOR NUMBER:
98.2B

EACH TO HAVE:
6  HINGES    BB1168 (MATCH EXIST)  HGR
2  FLUSH BOLTS   FB458-12  IVE
1  LOCKSET    93K 7R 15D  BES
1  CLOSER    4041 XP SCUSH MC X SNB  LCN
1  OH STOP    GJ900S  GJ
2  KICKPLATES   8400  IVE
1  SET SEALS  5020  NGP
1  ASTRAGAL  LIP ON OUTSIDE OF ACTIVE LEAF BY DR MFG

HW SET: 11A
DOOR NUMBER:
204.6

EACH TO HAVE:
6  HINGES    BB1168 (MATCH EXIST)  HGR
2  FLUSH BOLTS   FB458-12  IVE
1  LOCKSET    93K 7D 15D  BES
1  CLOSER    4041 XP RA MC X SNB  LCN
1  FLOOR STOP  FS441  IVE
2  KICKPLATES   8400  IVE
1  SET SEALS  5020  NGP
1  ASTRAGAL  LIP ON OUTSIDE OF INACTIVE LEAF BY DR MFG

HW SET: 12
DOOR NUMBER:
98.2A  99A  99B  99.18  99.9A  99.16A  100.3  100.4  201  202  301A  302A  303A  304  305  306  307  308  309A  309B  310  311  325A  325B  351  352  353A
355.3  356  357  358  359  360.1A  360.2  360.4A  361  362  363  364  364.3  365    366A  367A  367B  368.2  369  397  96.1.0  203  203.1A  203.1B  204A  204.1A  204.1B  204.3  205A  206A  206B  206.1  206.2A  220A  220B  220.1A  220.1B  221A  221B
230A  230B  230.1A  230.1B  231A  231B

EACH TO HAVE:
3  HINGES    BB1279  HGR
1  LOCKSET    93K 7R 15D  BES
1  CLOSER    4041 XP RA MC X SNB (OMIT AT CLASSROOMS)  LCN
1  KICKPLATE  8400  IVE
1  FLOOR STOP  FS441  IVE
1  SET SEALS  5020  NGP

NOTE: ON OUTSWING DOORS OMIT FLOOR STOP AND PROVIDE SCUSH CLOSER ARM.
NOTE: SEE ALTERNATES AT DOORS: 100.3  100.4  325A  325B  367A  367B  360.1A
HW SET: 13
DOOR NUMBER:
99C

EACH TO HAVE:
3 HINGES BB1279 HGR
1 PASSAGE SET 93K ON 15D BES
1 CLOSER 4041 XP RA MC X SNB LCN
1 KICKPLATE 8400 IVE
1 WALL BUMPER WS407CCV IVE
1 SET SEALS 5020 NGP

SEE ALTERNATES FOR THIS DOOR

HW SET: 14
DOOR NUMBER:
99D

EACH TO HAVE:
1 PASSAGE SET 93K ON 15D BES

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 15
DOOR NUMBER:
99.1 99.2A 99.3 100.1B 100.2

EACH TO HAVE:
3 HINGES BB1279 HGR
1 LOCKSET 93K 7AB 15D BES
1 WALL BUMPER WS407CCV IVE
1 SET SEALS 5020 NGP

SEE ALTERNATES FOR THESE DOORS

HW SET: 16
DOOR NUMBER:
99.14 99.20

EACH TO HAVE:
3 HINGES BB1279 NRP HGR
1 LOCKSET 45H 7AB 15D BES
1 CLOSER 4041 XP RA MC X SNB LCN
1 KICKPLATE 8400 IVE
1 FLOOR STOP FS441 IVE
1 SET SEALS 5020 NGP

SEE ALTERNATES FOR THESE DOORS
HW SET: 17
DOOR NUMBER:
100.1A  301.1A  301.2A  301.3A  326.2  360  360.7  96.5  96.6  96.9

EACH TO HAVE:
3  HINGES     BB1279  HGR
1  LOCKSET    93K 7AB 15D  BES
1  CLOSER     4041 XP RA MC X SNB  LCN
1  KICKPLATE  8400  IVE
1  FLOOR STOP FS441  IVE
1  SET SEALS  5020  NGP

NOTE: SEE ALTERNATES AT DOORS: 326.2

HW SET: 18
DOOR NUMBER:
100.5A  300.1A

EACH TO HAVE:
3  HINGES     BB1279  HGR
1  LOCKSET    93K 7R 15D  BES
1  WALL BUMPER WS407CCV  IVE
1  SET SEALS  5020  NGP

NOTE: SEE ALTERNATES AT DOORS: 100.5A

HW SET: 19
DOOR NUMBER:
100

EACH TO HAVE:
2  CONTINUOUS HINGE SL24HD  SEL
2  EXIT DEVICE  99L-F X SNB  VON
2  CYLINDERS  1E72  BES
1  CYLINDER    1E74 (FOR KR)  BES
2  CLOSERS     4041 XP EDA MC X SNB  LCN
2  KICKPLATES  8400  IVE
2  WALL BUMPERS WS407CCV  IVE
1  SET SEALS   5020  NGP
1  REMOVABLE MULLION KR9954  VON

NOTE: SEE ALTERNATE #6
**HW SET: 20**
**DOOR NUMBER:**
300A

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<td>SL24HD</td>
<td>SEL</td>
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<tr>
<td>1 EA MULLION</td>
<td>KR4954 X (2) 154</td>
<td>VON</td>
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<tr>
<td>1 EA EXIT DEVICE</td>
<td>98DT X SNB</td>
<td>VON</td>
</tr>
<tr>
<td>1 EA EXIT DEVICE</td>
<td>98NL X SNB</td>
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<tr>
<td>1 EA RIM CYLINDER</td>
<td>1E72</td>
<td>BES</td>
</tr>
<tr>
<td>1 EA MORT CYLINDER</td>
<td>1E74 (FOR KR)</td>
<td>BES</td>
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<tr>
<td>2 EA SURFACE CLOSERS</td>
<td>4041 XP SCUSH MC X SNB</td>
<td>LCN</td>
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<tr>
<td>1 EA THRESHOLD</td>
<td>426 X RCE</td>
<td>NGP</td>
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<tr>
<td>1 SET DOOR SEALS</td>
<td>5050</td>
<td>NGP</td>
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<tr>
<td>2 EA DOOR SWEEP</td>
<td>C607</td>
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<tr>
<td>1 EA MULLION SEAL</td>
<td>5100S</td>
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COORDINATE WITH SECURITY AND ELECTRICAL SYSTEMS.

**HW SET: 21**
**DOOR NUMBER:**
300B

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<td>1 EA CONTINUOUS HINGE</td>
<td>SL24HD</td>
<td>SEL</td>
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<tr>
<td>1 EA POWER TRANSFER</td>
<td>EPT-10</td>
<td>VON</td>
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<tr>
<td>1 EA EXIT DEVICE</td>
<td>EL98DT X SNB</td>
<td>VON</td>
</tr>
<tr>
<td>1 EA CARD READER</td>
<td>BY SECURITY CONTRACTOR</td>
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</tr>
<tr>
<td>2 EA DOOR POSITION SWITCH</td>
<td>BY SECURITY CONTRACTOR</td>
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<tr>
<td>1 EA MOTION SENSOR</td>
<td>BY SECURITY CONTRACTOR</td>
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<tr>
<td>1 EA ADA OPERATOR</td>
<td>4642 X CS X 120VAC</td>
<td>LCN</td>
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<tr>
<td>1 EA KEY SWITCH</td>
<td>8310-806K</td>
<td>LCN</td>
</tr>
<tr>
<td>1 EA ACTUATOR</td>
<td>8310-3822TW</td>
<td>LCN</td>
</tr>
<tr>
<td>1 EA KICKPLATE</td>
<td>8400</td>
<td>IVE</td>
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<tr>
<td>1 EA FLOOR STOP</td>
<td>FS18L</td>
<td>IVE</td>
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<tr>
<td>1 EA THRESHOLD</td>
<td>426 X RCE</td>
<td>NGP</td>
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<tr>
<td>1 SET DOOR SEALS</td>
<td>5050</td>
<td>NGP</td>
</tr>
<tr>
<td>1 EA DOOR SWEEP</td>
<td>C607</td>
<td>NGP</td>
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COORDINATE WITH SECURITY AND ELECTRICAL SYSTEMS.
HW SET: 22
DOOR NUMBER:
300.2B

EACH TO HAVE:
1 EA CONTINUOUS HINGE SL24HD SEL
1 EA CONTINUOUS HINGE SL24HD X PREP FOR EPT SEL
1 EA POWER TRANSFER EPT-10 VON
1 EA POWER SUPPLY PS914-2RS X 120VAC VON
1 EA MULLION KR4954 X (2) 154 VON
1 EA EXIT DEVICE 98DT X SNB VON
1 EA EXIT DEVICE EL98NL X SNB VON
1 EA RIM CYLINDER 1E72 BES
1 EA MORT CYLINDER 1E74 (FOR KR) BES
1 EA CARD READER BY SECURITY CONTRACTOR
2 EA DOOR POSITION SWITCH BY SECURITY CONTRACTOR
1 EA MOTION SENSOR BY SECURITY CONTRACTOR
1 EA ADA OPERATOR 4642 X CS X 120VAC LCN
1 EA KEY SWITCH 8310-806K LCN
1 EA ACTUATOR 8310-3822TW LCN
1 EA SURFACE CLOSER 4041 XP SCUSH MC X SNB LCN
1 EA FLOOR STOP FS18S (FOR ADA LEAF) IVE
1 EA THRESHOLD 426 X RCE NGP
1 SET DOOR SEALS 5050 NGP
2 EA DOOR SWEEP C607 NGP
1 EA MULLION SEAL 5100S NGP

COORDINATE WITH SECURITY AND ELECTRICAL SYSTEMS.

HW SET: 23
DOOR NUMBER:
300.2A 300.16

EACH TO HAVE:
2 CONTINUOUS HINGES SL24HD SEL
2 EXIT DEVICES 9927L-F-BE X SNB LBR VON
1 CLOSERS 4041 SE MC X SNB LCN
1 CLOSERS 4041 XP EDA MC X SNB 180 DEG LCN
2 KICKPLATES 8400 IVE
1 FLOOR MAGNET SEM 7820 LCN
1 SET SEALS 5020 NGP
2 PC ASTRAGAL 5070 NGP

COORDINATE WITH ELECTRICAL AND FIRE ALARM CONTRACTORS
HW SET: 24
DOOR NUMBER:
300.5A  300.5B

EACH TO HAVE:
2  CONTINUOUS HINGES  SL24HD  SEL
2  EXIT DEVICES  9927L-F-BE X SNB LBR  VON
2  CLOSERS  4041 XP EDA MC X SNB  LCN
2  KICKPLATES  8400  IVE
2  WALL MAGNETS  SEM7850 X EXTENSION AS REQ  LCN
1  SET SEALS  5020  NGP
2  PC ASTRAGAL  5070  NGP

COORDINATE WITH ELECTRICAL AND FIRE ALARM CONTRACTORS

HW SET: 25
DOOR NUMBER:
300.4  300.19

NOTE: DOORS MUST SWING INTO BUILDING.

EACH TO HAVE:
1  EA  CONTINUOUS HINGE  SL57HD  SEL
1  EA  EXIT DEVICE  98L X SNB X WH (WEEP HOLES)  VON
1  EA  CYLINDER  1E72  BES
1  EA  SURFACE CLOSER  4041 XP RA MC X SNB  LCN
1  KICKPLATE  8400  IVE
1  WALL BUMPER  WS407CCV  IVE
1  EA  THRESHOLD  427 X WALL TO WALL  NGP
1  SET  DOOR SEALS  5050  NGP
1  EA  DOOR SWEEP  200SA  NGP

SEE GENERAL NOTES CONCERNING EXISTING PIVOTS AND FLOOR CLOSER.

HW SET: 26
DOOR NUMBER:
300.11

EACH TO HAVE:
1  EA  SURFACE CLOSER  4041 XP RA MC X SNB  LCN

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 27
DOOR NUMBER:
200.13  200.16  371.3  400  400.1  400.3

EACH TO HAVE:
1  EXIT DEVICE  99L-F-BE X SNB  VON

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.
HW SET: 28
DOOR NUMBER:
355.1  355.2  364.1  364.2  96.8  96.11  204.2  204.4

EACH TO HAVE:
1  CONTINUOUS HINGE  SL24HD  SEL
1  LOCKSET  93K 7R 15D  BES
1  CLOSER  4041 XP RA MC X SNB  LCN
1  KICKPLATE  8400  IVE
1  MOP PLATE  8400  IVE
1  WALL BUMPER  WS407CCV  IVE
1  SET SEALS  5020  NGP
1  WALL MAGNET  SEM7850 X EXT AS REQ.  LCN

COORDINATE WITH ELECTRICAL AND FIRE ALARM CONTRATORS

HW SET: 29
DOOR NUMBER:
360.4B

EACH TO HAVE:
3  HINGES  BB1168  HGR
1  PUSH PLATE  8200 8 X 16  IVE
1  PULL PLATE  8303-8 4 X 16  IVE
1  CLOSER  4041 XP SCUSH X MC X SNB  LCN
1  KICKPLATE  8400  IVE
1  SET SEALS  5020  NGP

HW SET: 31
DOOR NUMBER:
96.38B  96.39B

EACH TO HAVE:
1  CONTINUOUS HINGE  SL24HD  SEL
1  LOCKSET  45H 7AB 15J  BES
1  CLOSER  4041 XP SCUSH X MC X SNB  LCN
1  KICKPLATE  8400  IVE
1  THRESHOLD  425  NGP
1  SET SEALS  5050  NGP
1  SWEEP  200SA  NGP
1  DRIP CAP  16A  NGP
HW SET: 32
DOOR NUMBER:
96.2.0  96.68B  400.8

EACH TO HAVE:
1  EA  CONTINUOUS HINGE  SL24HD  SEL
1  EA  EXIT DEVICE  98NL X SNB  VON
1  EA  CYLINDER  1E72  BES
1  EA  SURFACE CLOSER  4041 XP SCUSH MC X SNB  LCN
1  EA  KICKPLATE  8400  IVE
1  EA  THRESHOLD  425  NGP
1  SET DOOR SEALS  5050  NGP
1  EA  DOOR SWEEP  200SA  NGP
1  DRIP CAP  16A  NGP

HW SET: 33
DOOR NUMBER:
96A  96B  96C  96D

EACH TO HAVE:
2  EA  CONTINUOUS HINGE  SL57HD  SEL
2  EXIT DEVICES  99L-F X SNB  VON
2  CYLINDERS  1E72  BES
1  CYLINDER  1E74  BES
1  MULLION  KR9954 X 499 (DR 96D ONLY)  VON
2  CLOSERS  4041 XP SCUSH MC X SNB  LCN
2  KICKPLATES  8400  IVE
1  THRESHOLD  427 X FRAME WIDTH. KNOTCH AROUND MULLION  NGP
1  SET SEALS  5020  NGP
1  MULLION SEAL  5100 (DR 96D)  NGP

SEE GENERAL NOTES CONCERNING EXISTING PIVOTS AND FLOOR CLOSER.

EXISTING FIXED MULLION

HW SET: 34
DOOR NUMBER:
96E

EACH TO HAVE:
2  EA  CONTINUOUS HINGE  SL57HD  SEL
2  EXIT DEVICES  99L-F X SNB  VON
2  CYLINDERS  1E72  BES
1  CYLINDER  1E74  BES
1  MULLION  KR9954 X 499  VON
2  CLOSERS  4041 XP SCUSH MC X SNB  LCN
2  KICKPLATES  8400  IVE
1  THRESHOLD  427 X FRAME WIDTH.  NGP
1  SET SEALS  5020  NGP
1  MULLION SEAL  5100  NGP

SEE GENERAL NOTES CONCERNING EXISTING PIVOTS AND FLOOR CLOSER.
HW SET: 35
DOOR NUMBER:
96F 96.0A 96.0B 96.0C 96.0D 96.14B 200.14 400.8

EACH TO HAVE:

1  EXIT DEVICE 99DT X SNB VON
1  EXIT DEVICE 99NL X SNB (ON ONE LEAF OF EACH BANK) VON
1  CYLINDER 1E72 BES
1  CLOSER 4041 XP SCUSH MC X SNB (EACH LEAF) LCN

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 36
DOOR NUMBER:
96.1 96.13A 96.13B 96.14A

EACH TO HAVE:

2 EA CONTINUOUS HINGE SL57HD SEL
2  EXIT DEVICES 99L-F X SNB VON
2  CYLINDERS 1E72 BES
1  CYLINDER 1E74 BES
1  MULLION KR9954 X 499 (OMIT AT 96.14A) VON
2  CLOSERS 4041 XP SCUSH MC X SNB LCN
2  KICKPLATES 8400 IVE
1  THRESHOLD 427 X FRAME WIDTH. KNOTCH AROUND MULLION NGP
1  SET SEALS 5020 NGP
1  MULLION SEAL 5100 NGP

SEE GENERAL NOTES CONCERNING EXISTING PIVOTS AND FLOOR CLOSER.

EXISTING FIXED MULLION AT 96.14A.

HW SET: 37
DOOR NUMBER:
96.13C 96.14C

EACH TO HAVE:

1  EXIT DEVICE 99L X SNB VON
1  CYLINDER 1E72 BES
1  CLOSER 4041 XP RA X MC X SNB LCN
1  WALL BUMPER WS407CCV IVE

CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.
HW SET: 38
DOOR NUMBER:
403A

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<td>2 EA CONTINUOUS HINGE</td>
<td>SL57HD SEL</td>
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<tr>
<td>2 EXIT DEVICES</td>
<td>99L-F X SNB VON</td>
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<td>2 CYLINDERS</td>
<td>1E72 BES</td>
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<td>1 CYLINDER</td>
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<td>1 MULLION</td>
<td>KR9954 X 499 VON</td>
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<td>2 CLOSERS</td>
<td>4041 XP SCUSH MC X SNB LCN</td>
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<td>2 KICKPLATES</td>
<td>8400 IVE</td>
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<td>1 THRESHOLD</td>
<td>427 X FRAME WIDTH. KNOTCH AROUND MULLION NGP</td>
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<td>1 SET SEALS</td>
<td>5050 NGP</td>
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<td>1 MULLION SEAL</td>
<td>5100 NGP</td>
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<tr>
<td>2 AUTO DR BOTTOMS</td>
<td>420SA NGP</td>
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SEE GENERAL NOTES CONCERNING EXISTING PIVOTS AND FLOOR CLOSER.

HW SET: 39
DOOR NUMBER:
400.4

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<td>1 EXIT DEVICE</td>
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<td>1 MULLION</td>
<td>KR4954 X 154 VON</td>
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<td>1 CYLINDER</td>
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<td>1 CYLINDER</td>
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<td>2 CLOSERS</td>
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<td>1 THRESHOLD</td>
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HW SET: 40
DOOR NUMBER:
300.14

<table>
<thead>
<tr>
<th>EACH TO HAVE:</th>
<th>ITEM</th>
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<tbody>
<tr>
<td>2 EA CONTINUOUS HINGE</td>
<td>SL57HD SEL</td>
</tr>
<tr>
<td>2 EXIT DEVICES</td>
<td>99L-F-BE X SNB VON</td>
</tr>
<tr>
<td>1 MULLION</td>
<td>KR9954 X 499 VON</td>
</tr>
<tr>
<td>1 CYLINDER</td>
<td>1E74 BES</td>
</tr>
<tr>
<td>2 CLOSERS</td>
<td>4041 XP EDAMC X SNB LCN</td>
</tr>
<tr>
<td>2 KICKPLATES</td>
<td>8400 IVE</td>
</tr>
<tr>
<td>1 SET SEALS</td>
<td>5050 NGP</td>
</tr>
<tr>
<td>1 MULLION SEAL</td>
<td>5100 NGP</td>
</tr>
<tr>
<td>2 WALL MAGNETS</td>
<td>SEM7850 (REPLACE EXISTING AS REQ) LCN</td>
</tr>
</tbody>
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SEE GENERAL NOTES CONCERNING EXISTING PIVOTS AND FLOOR CLOSER.
HW SET: 41  
DOOR NUMBER:  
303.4A  303.4B  

EACH TO HAVE:  

<table>
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<th>Item</th>
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<th>Model</th>
<th>Supplier</th>
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<tbody>
<tr>
<td>1</td>
<td>LOCKSET</td>
<td>93K 7R 15D</td>
<td>BES</td>
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<tr>
<td>1</td>
<td>SET SOUND SEALS</td>
<td>133NA</td>
<td>NGP</td>
</tr>
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CLEAN, REPAIR OR REPLACE BALANCE OF EXISTING HARDWARE AS REQUIRED FOR PROPER OPERATION.

HW SET: 42  
DOOR NUMBER:  
373  

EACH TO HAVE:  

<table>
<thead>
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<th>Item</th>
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<tbody>
<tr>
<td>1</td>
<td>CYLINDER</td>
<td>1E74 (AS REQ)</td>
<td>BES</td>
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END OF SECTION

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