

08 7200

DOOR HARDWARE

PART 1 - GENERAL

- 1.1 Refer to "General and Special Conditions", and "Instructions to Bidders", Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.
- 1.2 Work Included:
- A. Furnish all items of Finish Hardware specified, scheduled, shown or required herein except those items specifically excluded from this section of the specification.
- B. Related work:
1. Division 00 00 00 – Procurement and Contracting Requirements
 2. Division 01 00 00 – General Requirements
 3. Division 06 00 00 – Wood, Plastics, and Composites
 4. Division 08 00 00 – Openings
 5. Division 10 00 00 – Specialties
 6. Division 11 00 00 – Equipment
 7. Division 26 00 00 – Electrical
 8. Division 27 00 00 – Communications
 9. Division 28 00 00 – Electronic Safety and Security
- C. Specific Omissions: Hardware for the following is specified or indicated elsewhere, unless specifically listed in the hardware sets:
1. Cabinet Hardware.
 2. Signs, except as noted.
 3. Folding partitions, except cylinders where detailed.
 4. Sliding aluminum doors
 5. Chain link and wire mesh doors and gates
 6. Access doors and panels
 7. Overhead and Coiling doors
- 1.3 Quality Assurance
- A. Requirements of Regulatory Agencies:
1. Furnish finish hardware to comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction where such requirements exceed the requirements of the Specifications.
 2. Furnish finish hardware to comply with the requirements of the regulations for public building accommodations for physically handicapped persons of the governmental authority having jurisdiction and to comply with Americans with Disabilities Act.

3. Provide hardware for fire-rated openings in compliance with NFPA 80 and state and local building code requirements. Provide only hardware that has been tested and listed by UL for types and sizes of doors required and complies with requirements of door and door frame labels.

B. Hardware Supplier:

1. Shall be an established firm dealing in contract builders' hardware. He must have adequate inventory, qualified personnel on staff and be located within 100 miles of the project. The distributor must be a factory-authorized dealer for all materials required. The supplier shall be or have in employment an Architectural Hardware Consultant (AHC).

C. Electrified Door Hardware Supplier:

1. Shall be an experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials.
2. Shall prepare data for electrified door hardware, including shop drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this project.
3. Shall have experience in providing consulting services for electrified door hardware installations.

D. Pre-installation Meeting:

1. Before hardware installation, General Contractor/Construction Manager will request a hardware installation meeting be conducted on the installation of hardware; specifically that of locksets, closers, exit devices, overhead stops and coordinators. Manufacturer's representatives of the above products, in conjunction with the hardware supplier for the project, shall conduct the meeting. Meeting to be held at job site and attended by installers of hardware for aluminum, hollow metal and wood doors. Meeting to address proper coordination and installation of hardware, per finish hardware schedule for this specific project, by using installation manuals, hardware schedule, templates, physical product samples and installation videos.
2. When any electrical or pneumatic hardware is specified this meeting shall also include the following trades/installers: Electrical, Security, Alarm systems and Architect.
3. Convene one week or more prior to commencing work of this Section.
4. The Hardware Supplier shall include the cost of this meeting in his proposal.

E. Manufacturer:

1. Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
2. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.

1.4 Submittals:

A. Hardware Schedule

1. Submit number of Hardware Schedules as directed in Division 1.
2. Follow guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule unless noted otherwise.
3. Schedule will include the following:
 - a. Door Index including opening numbers and the assigned Finish Hardware set.
 - b. Preface sheet listing category only and manufacturer's names of items being furnished as follows:

| CATEGORY | SPECIFIED | SCHEDULED |
|-------------|----------------|----------------|
| Hinges | Manufacturer A | Manufacturer B |
| Lock sets | Manufacturer X | Manufacturer X |
| Kick Plates | Open | Manufacturer Z |

- c. Hardware Locations: Refer to Article 3.1 B.2 Locations.
- d. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, door material, frame material, and UL listing.
- e. Hardware Description: Quantity, category, product number, fasteners, and finish.
- f. Headings that refer to the specified Hardware Set Numbers.
- g. Scheduling Sequence shown in Hardware Sets.
- h. Product data of each hardware item, and shop drawings where required, for special conditions and specialty hardware.
- i. Electrified Hardware system operation description.
- j. "Vertical" scheduling format only. "Horizontal" schedules will be returned "Not Approved."
- k. Typed Copy.
- l. Double-Spacing.
- m. 8-1/2 x 11 inch sheets
- n. U.S. Standard Finish symbols or BHMA Finish symbols.

B. Product Data:

1. Submit, in booklet form Manufacturers Catalog cut sheets of scheduled hardware.
2. Submit product data with hardware schedule.

C. Samples:

1. Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample, if required, of each type of exposed hardware unit, finished as required and tagged with full description for coordination with schedule.
2. Samples will be returned to the supplier. Units, which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.

D. Key Schedule:

1. Submit detailed schedule indicating clearly how the Owner's final keying instructions have been followed.
2. Submit as a separate schedule.

E. Electrified Hardware Drawings:

1. Submit elevation drawings showing relationship of all electrical hardware components to door and frame. Indicate number and gage of wires required.
 - a. Include wiring drawing showing point to point wire hook up for all components.
 - b. Include system operations descriptions for each type of opening; describe each possible condition.

 - F. Submit to General Contractor/Construction Manager, the factory order acknowledgement numbers for the various hardware items to be used on the project. The factory order acknowledgement numbers shall help to facilitate and expedite any service that may be required on a particular hardware item. General Contractor/Construction Manager shall keep these order acknowledgement numbers on file in the construction trailer.
- 1.5 Product Delivery, Storage, and Handling:
- A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number, and deliver to the installer so designated by the contractor.
- 1.6 Existing Conditions:
- A. **Where existing doors, frames and/or hardware are to remain, conditions, preparations and functions shall be field verified to confirm compatibility with specified hardware. Where any incompatibility is discovered, notify the contractor or construction manager immediately and provide a suggested solution based on industry standard business practices.**
- 1.7 Warranties:
- A. Refer to Division 1 for warranty requirements.
 - B. Special Warranty Periods:
 1. Closers shall carry manufacturer's 30-year warranty against manufacturing defects and workmanship.
 2. Locksets shall carry manufacturer's 3-year warranty against manufacturing defects and workmanship.
 3. Exit Devices shall carry manufacturer's 3-year warranty against manufacturing defects and workmanship.
 4. Continuous gear hinges shall carry manufacturer's lifetime warranty to be free from defects in material and workmanship.
 5. Balance of items shall carry a manufacturer's 1-year warranty against manufacturing defects and workmanship.
 - C. During the warranty period, replace defective work, including labor, materials and other costs incidental to the work.

PART 2 - PRODUCT

- 2.1 Furnish each category with the products of only one manufacturer unless specified otherwise; this requirement is mandatory whether various manufacturers are listed or not.
- 2.2 Provide the products of manufacturer designated or if more than one manufacturer is listed, the comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, it is understood that this is the owner's Building Standard and "no substitution" is allowed.
- A. Hinges:
1. Furnish hinges of class and size as listed in sets or as required to match existing conditions.
 2. Numbers used are Ives (IVE).
 3. Equal products from Hager, McKinney and Stanley will be accepted.
- B. Continuous Gear Hinge:
1. 6063-T6 aluminum alloy, anodized finish (cap on entire hinge painted if specified). Manufacture to template, uncut hinges non-handed, pinless assembly, three interlocking extrusions, full height of door and frame, fasteners 410 stainless steel plated and hardened. Anodizing of material shall be done after fabrication of components so that all bearing slots are anodized.
 2. Length: 1" less than door opening height. Fastener 12-24 x 1/2" #3 Phillips keen form stainless steel self-tapping at aluminum and hollow metal doors, 12- 1/2" #3 Phillips, flathead full thread at wood doors.
 3. Furnish fire rated hinges "FR" at labeled openings.
 4. Numbers used are Ives.
 - a. For hollow metal frames;
 - 1) Ives 224XY
 - 2) Equal products by Pemko & Select will also be accepted.
 - b. For Aluminum frames;
 - 1) Ives 112XY
 - 2) Equal products by Pemko & Select will also be accepted.
- C. Flush Bolts:
1. Constant Latching: metal doors:
 - a. Ives FB50 Series
 - b. Equal product of any B.H.M.A. member.
 2. Constant Latching: wood doors:
 - a. Ives FB60 Series
 - b. Equal product of any B.H.M.A. member.
 3. Manual – wood and metal doors:
 - a. Ives FB458 Series
 - b. Equal product of any B.H.M.A. member.
 4. Dust Proof Strikes - furnish with all flush bolts, except at openings having thresholds:
 - a. Ives DP2
 - b. Equal product of any B.H.M.A. member.
- D. Locksets and Latchsets - Mortise Type:
1. Locksets shall be manufactured from heavy gauge steel, minimum lockcase thickness 1/8", containing components of steel with a zinc dichromate plating for corrosion resistance.

2. Locks are to have a standard 2 ¾" backset with a full ¾" throw two-piece stainless steel mechanical anti-friction latchbolt. Deadbolt shall be a full 1" throw, constructed of stainless steel.
3. Lockcase shall be easily handed without chassis disassembly by removing handing screw on lockcase and installing in opposite location on reverse side. Changing of door hand bevel from standard to reverse hand shall be done by removing the lockcase scalp plate, and pulling and rotating the latchbolt 180 degrees.
4. Lock trim shall be through-bolted to the door to assure correct alignment and proper operation. Lever trim shall have external spring cage mechanism to assist in support of the lever weight.
5. Function numbers are Schlage.
 - a. Schlage L9000
6. Lockset Trim:
 - a. Schlage 03N
7. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond door frame trim at single doors and have 7/8" lip to center at pairs of 1-3/4" doors.
8. Provide strikes as required to match existing conditions and preparations at existing openings.

E. Exit Devices:

1. Exit devices shall be touchpad style, fabricated of brass, bronze, stainless steel, or aluminum, plated to the standard architectural finishes to match the balance of the door hardware.
2. All exit devices shall incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with exit device operation. Touchpad shall extend a minimum of one half of the door width. All latchbolts to be deadlatching type, with a self-lubricating coating to reduce wear.
3. End-cap will be sloped to deflect any impact from carts and they shall be flush with the external mechanism case. End caps that overlap and project above the mechanism case are unacceptable. End cap shall utilize a two-point attachment to the mounting bracket.
4. Touchpad shall match exit device finish, and shall be stainless steel for US26, US26D, US28, US32, and US32D finishes. Only compression springs will be used in devices, latches, and outside trims or controls.
5. Plastic templates shall be included with each exit device to facilitate a quick, easy and accurate installation.
6. Strikes shall be roller type and come complete with a locking plate to prevent movement.
7. All rim and vertical rod exit devices shall have passed a 5 million(5,000,000) cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
8. All mortise exit devices shall have passed a 10 million(10,000,000)cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
9. Provide cylinder dogging on panic exit hardware where noted in hardware sets.
10. Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be UL labeled fire exit hardware.
11. Lever trim for exit devices shall be vandal-resistant type, which will travel to a 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.
12. Von Duprin 98 and 35A Series. Series and function numbers as listed in sets.
13. Trim:
 - a. As specified in sets.
 - b. Levers to match lockset design where specified.

F. Electric Strike:

1. Electric strikes shall provide remote release of latchbolts. They shall be designed for use with the type locks shown at each opening where required. Strikes will be UL Listed for Burglary-Resistant Electric Door Strike, and where required, shall be UL listed as electric strikes for Fire Doors or Frames. Faceplates shall be stainless steel with finish as specified for each opening. The locking components shall be stainless steel to resist damage and abuse.
2. Solenoids shall be of the continuous duty type for the voltage specified. Plug connectors will be furnished. Strikes shall have an adjustable backbox to compensate for misalignment of door and frame.
3. Numbers used in sets are Von Duprin.
 - a. Von Duprin 6000 series

G. Closers:

1. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder. Cylinder body shall be 1 ½" in diameter, and double heat treated pinion shall be 11/16" in diameter with double D slab drive arm connection.
2. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
3. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed, and backcheck.
4. All closers shall have solid forged steel main arms (and forged forearms for parallel arm closers).
5. All surface mounted mechanical closers shall be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory.
6. Closers will have Powder coating finish certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
7. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
8. LCN Series as listed in sets.

H. ADA Special Closers:

1. Where "Low Energy Power Operated Door" as defined by ANSI Standard A156.19 is indicated for doors required to be accessible to the disabled, provide electrically powered operators complying with the ADA requirements for opening force and time to close standards.
2. Full closing force shall be provided when the power or assist cycle ends.
3. Modular design, adjustments easily accessible from the front, UL listed for use on labeled doors.
4. Shall have "Second Chance" function to accommodate momentary resistance, "Breakaway" function in the electronically controlled clutch, "Soft Start" motor control function and "Maintain Hold-Open Switch" to hold the door open at 90 degree.
5. Shall have built in 12V and 24V power supply for actuators, card readers, electric strikes and magnetic door locks, inputs for both swing and stop side sensors and available to accept either 120VAC or 220VAC input power. All wiring connections between operator modules made by easy-to-handle electrical connectors. Shall comply with both UL and NEC requirements for Class 1 and Class 2 wiring by providing separate conduits for each.

6. Shall have seven independent electronic adjustments to tailor the operator for specific site conditions. Opening speed, holding force at 90 deg., sequential trigger and time delay, hold-open time at 90 deg., opening force, clutch "breakaway" force setting, electric strike trigger and time delay.
 7. Shall have separate and independent adjustments for back check, main speed and latch speed.
 8. LCN Series as listed in sets.
 9. Furnish actuators and other controls as shown in Hardware Sets.
- I. Overhead Holders and Stops:
1. Type, function and fasteners must be same as Glynn-Johnson specified. Size per manufacturer's selector chart. Plastic end caps, hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
 2. Manufacture products using base material of Brass/Bronze for US3, US4, & US10B finished products and 300 Stainless Steel for US32 & US32D finished products.
 3. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer's selector chart.
 - a. Glynn-Johnson
- J. Kick Plates:
1. Furnish .050 inches thick, beveled four sides, countersunk fasteners, 10" high x door width less 2" at single doors and less 1" at pairs. Where glass or louvers prevent this height, supply with height equal to height of bottom rail less 2".
 2. Any BHMA manufacturing product meeting above is acceptable.
- K. Wall Stops:
1. Length to exceed projection of all other hardware. Provide with threaded studs and expansion shields for masonry wall construction. Install with slope on top.
 - a. Ives WS33(X)
 - b. BHMA L12011 or L12021
- L. Thresholds:
1. 1/4" high - 6" wide. Cope at jambs.
 2. Furnish full wall opening width when frames are recessed.
 3. Cope in front of mullions if thresholds project beyond door faces.
 4. Furnish with non-ferrous Stainless Steel Screws and Lead Anchors.
 - a. Zero as listed in sets
 - b. Equal of NGP or Reese
- M. Door Sweeps:
1. Surface Sweeps:
 - a. Zero as listed in sets
 - b. Equal of NGP or Reese
- N. Miscellaneous:
1. Furnish items not categorized in the above descriptions but specified by manufacturer's names in Hardware Sets.

O. Fasteners:

1. Furnish fasteners of the proper type, size, quantity and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Furnish machine screws for attachment to reinforced hollow metal doors and frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.
2. **Sex bolts will not be permitted on reinforced metal doors or wood doors where blocking is specified.**

2.3 Finishes:

- A. Generally, Satin Chrome, US26D / BHMA 626. Provide finish for each item as indicated in sets.

2.4 Templates and Hardware Location:

- A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.
- B. Furnish metal template to frame/door supplier for continuous hinge.
- C. Refer to Article 3.1 B.2, Locations, and coordinate with templates.

2.5 Cylinders and Keying:

- A. All cylinders for this project will be supplied by one supplier regardless of door type and location.
- B. The Finish Hardware supplier will meet with Architect and/or Owner to finalize keying requirements and obtain keying instructions in writing.
 1. Supplier shall include the cost of this service in his proposal.
- C. Provide a cylinder and core for all hardware components capable of being locked.
- D. Provide cylinders '0' bitted per Owner's instructions. Final keying by Owner.

PART 3 - EXECUTION

3.1 Installation

A. General:

1. Install hardware according to manufacturers installations and template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacture of the item.
2. Provide blocking/reinforcement for all wall mounted Hardware.
3. Reinforced hollow metal doors and frames and reinforced aluminum door and frames will be drilled and tapped for machine screws.

4. Solid wood doors and frames: full thread wood screws. Drill pilot holes before inserting screws.
5. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keenform self-tapping. Use #13 or 3/16 drill for pilot.
6. Continuous Gear Hinges require continuous mortar guards of foam or cardboard 1/2" thick x frame height, applied with construction adhesive.

B. Locations:

1. Dimensions are from finish floor to center line of items.
2. Include this list in Hardware Schedule.

| <u>CATEGORY</u> | <u>DIMENSION</u> |
|----------------------|------------------------------|
| Hinges | Door Manufacturer's Standard |
| Flush Bolt Levers | 72" and 12" |
| Levers | Door Manufacturer's Standard |
| Exit Device Touchbar | Per Template |
| Wall Stops/holders | At Head |

C. Field Quality Inspection:

1. Inspect material furnished, its installation and adjustment, and instruct the Owner's personnel in adjustment, care and maintenance of hardware.
2. Locksets and exit devices shall be inspected after installation and after the HVAC system is in operation and balanced, to insure correct installation and proper operation.
3. Closers shall be inspected and adjusted after the HVAC system is in operation and balanced, to insure correct installation and proper operation.
4. A written report stating compliance, and also locations and kinds of noncompliance shall be forwarded to the Architect with copies to the Contractor, hardware distributor, hardware installer and building owner.







D. Technical and Warranty Information:

1. At the completion of the project, the technical and warranty information coalesced and kept on file by the General Contractor/Construction Manager shall be given to the Owner or Owner's Agent. In addition to both the technical and warranty information, all factory order acknowledgement numbers supplied to the General Contractor/Construction Manager during the construction period shall be given to the Owner or Owner's Agent. The warranty information and factory order acknowledgement numbers shall serve to both expedite and properly execute any warranty work that may be required on the various hardware items supplied on the project.
2. Submit to General Contractor/Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products.

3.2 Hardware Sets:






Hardware Group No. 01

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N |  | 626 | SCH |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |







Hardware Group No. 02

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|------------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | OFFICE/ENTRY LOCK | L9050BDC 03N 09-544 L283-711 |  | 626 | SCH |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |







Hardware Group No. 03

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N |  | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4011 MC |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |







Hardware Group No. 04

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|------------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | OFFICE/ENTRY LOCK | L9050BDC 03N 09-544 L283-711 |  | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |




Hardware Group No. 05

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|------------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | OFFICE/ENTRY LOCK | L9050BDC 03N 09-544 L283-711 |  | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4011 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |







Hardware Group No. 06

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-----------------------|---------------------|---|------------|------------|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N |  | 626 | SCH |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |






Hardware Group No. 07

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N |  | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4111 EDA |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |




Hardware Group No. 08

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|------------------|----------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | PANIC HARDWARE | CDSI-98-NL |  | 626 | VON |
| 2 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 626 | |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP/HOLDER | WS40 |  | 626 | IVE |









Hardware Group No. 09

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|----------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | CLASSROOM LOCK | L9070BDC 03N |  | 626 | SCH |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |





Hardware Group No. 10

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|----------|-----------|---------------------------|------------------------|---|------------|------------|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | CLASSROOM DEADBOLT | B663BDC 12-631 |  | 626 | SCH |
| 1 | EA | PUSH PLATE | 8200 4" X 16" |  | 630 | IVE |
| 1 | EA | PULL PLATE | 8302 8" 4" X 16" |  | 630 | IVE |
| 1 | EA | SURFACE CLOSER | 4011 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |









Hardware Group No. 11

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|---------------------|---------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | PRIVACY W/COIN TURN | L9044 03N 09-544 L283-722 |  | 626 | SCH |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |







Hardware Group No. 12

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|----------|-----------|---------------------------|----------------------------|---|------------|------------|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | CLASSROOM DEADBOLT | B663BDC 12-631 |  | 626 | SCH |
| 1 | EA | PUSH PLATE | 8200 4" X 16" |  | 630 | IVE |
| 1 | EA | PULL PLATE | 8302 8" 4" X 16" |  | 630 | IVE |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |
| 1 | EA | SURFACE CLOSER | 4011 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS |  | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |

Hardware Group No. 13

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|----------|-----------|--------------------|------------------------------|---|------------|------------|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | KEYED PRIVACY LOCK | L9456BDC 03N 09-544 L283-722 |  | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4011 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |

Hardware Group No. 14

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|------------------------|--|--------|-----|
| 1 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 1 | EA | PUSH PLATE | 8200 4" X 16" | | 630 | IVE |
| 1 | EA | PULL PLATE | 8302 8" 4" X 16" | | 630 | IVE |
| 1 | EA | SURFACE CLOSER | 4111 EDA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS33X | | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 15

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|---------------------|---------------------------|--|--------|-----|
| 1 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 1 | EA | PRIVACY W/COIN TURN | L9044 03N 09-544 L283-722 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4011 | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS33X | | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 16

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|--------------------|--|--|--------|-----|
| 1 | EA | FIRE EXIT HARDWARE | 98-L-BE-F-03 | | 626 | VON |
| 1 | EA | CYLINDER | (MATCH EXISTING SYSTEM) (RE-USE BALANCE OF EXIST'G HDWE) | | 626 | |






Hardware Group No. 17

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-----------------|-------------------------|--|--------------|-----|
| 1 | EA | CONT. HINGE | 224XY | | 710 | IVE |
| 1 | EA | PANIC HARDWARE | CDSI-98-NL-OP-110MD | | 643E | VON |
| 2 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 643e | |
| 1 | EA | ELECTRIC STRIKE | 6300 FSE 12/24 VAC/VDC | | 630 | VON |
| 1 | EA | RECESSED PULL | (BY DOOR MFR) | | | |
| 1 | EA | OH STOP | 90S | | 643E/7 16 | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 | | 695 | LCN |
| 1 | EA | DOOR SWEEP | 39D | | D | ZER |
| 1 | EA | THRESHOLD | 65A-223 | | A | ZER |






Hardware Group No. 18

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|--------------------|-------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | FIRE EXIT HARDWARE | 98-L-NL-F-03 |  | 626 | VON |
| 1 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 626 | |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |










Hardware Group No. 19

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|--------------------|-------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | FIRE EXIT HARDWARE | 98-L-NL-F-03 |  | 626 | VON |
| 1 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 626 | |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |







Hardware Group No. 20

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|-------------------------|---|--------------|-----|
| 2 | EA | CONT. HINGE | 224XY |  | 710 | IVE |
| 1 | EA | REMOVABLE MULLION | KR4854B STAB |  | 695 | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-EO |  | 643E | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-NL-OP-110MD |  | 643E | VON |
| 4 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 643e | |
| 1 | EA | ELECTRIC STRIKE | 6300 FSE 12/24 VAC/VDC |  | 630 | VON |
| 2 | EA | RECESSED PULL | (BY DOOR MFR) | | | |
| 2 | EA | OH STOP | 90S |  | 643E/7 16 | GLY |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 |  | 695 | LCN |
| 2 | EA | DOOR SWEEP | 39D |  | D | ZER |
| 2 | EA | THRESHOLD | 65A-223 |  | A | ZER |

Hardware Group No. 21






EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------------|---------------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 224XY TWP CON |  | 628 | IVE |
| 2 | EA | ELEC FIRE EXIT HARDWARE | QEL-9827-L-F-LBR-03-499F 24 VDC |  | 626 | VON |
| 1 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 626 | |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC |  | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 1" LDW B-CS |  | 630 | IVE |
| 2 | EA | FIRE/LIFE WALL MAG | SEM7850 |  | 689 | LCN |
| 1 | EA | POWER SUPPLY | PS902 900-2RS 120/240 VAC |  | LGR | SCE |

DOORS MAY BE HELD-OPEN ELECTROMAGNETICALLY. UPON ACTIVATION OF THE BUILDING FIRE ALARM, THE DOORS WILL CLOSE AND POSITIVELY LATCH. PANIC HARDWARE LATCHES MAY BE REMOTELY UNLATCHED. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT AND ALL RELATED TRADES.




Hardware Group No. 22

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|--------------------|-------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 2 | EA | FIRE EXIT HARDWARE | 9827-L-BE-F-LBR-03-499F |  | 626 | VON |
| 2 | EA | SURFACE CLOSER | 4011 MC |  | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 1" LDW B-CS |  | 630 | IVE |
| 2 | EA | WALL STOP | WS33X |  | 626 | IVE |

Hardware Group No. 23







EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|--------------------|----------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | REVERSE PUSH LATCH | 1591A | | 626 | TRI |
| 1 | EA | SURFACE CLOSER | 4013T MC |  | 689 | LCN |
| 1 | EA | WALL STOP | WS33X |  | 626 | IVE |

REQUIRES MONITORING PERSONNEL TO MAINTAIN PRESSURE ON PADDLE TO PREVENT OCCUPANT FROM EXITING ROOM.








Hardware Group No. 24

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|------------------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N |  | 626 | SCH |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |
| 1 | EA | SURFACE CLOSER | 4011 MC |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA |  | BK | ZER |





Hardware Group No. 25

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|-------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 224XY |  | 710 | IVE |
| 1 | EA | REMOVABLE MULLION | KR4954 STAB |  | 695 | VON |
| 2 | EA | PANIC HARDWARE | CDSI-98-EO |  | 643E | VON |
| 3 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 643e | |
| 2 | EA | RECESSED PULL | (BY DOOR MFR) | | | |
| 2 | EA | OH STOP | 90S |  | 643E/7 | GLY |
| | | | | | 16 | |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 |  | 695 | LCN |
| 2 | EA | DOOR SWEEP | 39D |  | D | ZER |
| 2 | EA | THRESHOLD | 65A-223 |  | A | ZER |






Hardware Group No. 26

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|--------------------|-------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 2 | EA | FIRE EXIT HARDWARE | 9827-L-BE-F-LBR-03-499F |  | 626 | VON |
| 2 | EA | OH STOP | 90S |  | 652 | GLY |
| 2 | EA | SURFACE CLOSER | 4011 MC |  | 689 | LCN |








Hardware Group No. 27

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|-------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 112XY |  | 710 | IVE |
| 1 | EA | REMOVABLE MULLION | KR4954 STAB |  | 695 | VON |
| 2 | EA | PANIC HARDWARE | CDSI-98-EO |  | 643E | VON |
| 3 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 643e | |
| 2 | EA | RECESSED PULL | (BY DOOR MFR) | | | |
| 2 | EA | OH STOP | 100S |  | 643E/7 | GLY |
| | | | | | 16 | |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC |  | 695 | LCN |

Hardware Group No. 28

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------|-------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 112XY |  | 710 | IVE |
| 1 | EA | REMOVABLE MULLION | KR4854B STAB |  | 695 | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-EO |  | 643E | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-NL-OP-110MD |  | 643E | VON |
| 4 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | | 643e | |
| 1 | EA | ELECTRIC STRIKE | 6300 FSE 12/24 VAC/VDC |  | 630 | VON |
| 2 | EA | RECESSED PULL | (BY DOOR MFR) | | | |
| 2 | EA | OH STOP | 100S |  | 643E/7 | GLY |
| | | | | | 16 | |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC |  | 695 | LCN |

Hardware Group No. 29

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-----------------------|---------------------------|--|--------|-----|
| 1 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 1 | EA | CLASSROOM/STOREROOM | L9070/80L 03N XL12-876 | | 626 | SCH |
| 2 | EA | FINAL CORE '0' BITTED | (MATCH EXISTING KEYWAY) | | 626 | KAB |
| 1 | EA | ELECTRIC STRIKE | 6210 FSE DS | | 630 | VON |
| 1 | EA | OH STOP | 90S | | 652 | GLY |
| 1 | EA | SURFACE CLOSER | 4011 | | 689 | LCN |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |
| 1 | EA | DESK MOUNT BUTTON | 660-PB | | 628 | SCE |
| 1 | EA | POWER SUPPLY | PS902 900-2RS 120/240 VAC | | | VON |
| 1 | EA | ACCESS CONTROL | (BY SECURITY CONTRACTOR) | | | |

PRESENTING AN AUTHORIZED CREDENTIAL WILL ENERGIZE THE ELECTRIC STRIKE TO ALLOW ACCESS TO CORRIDOR. THE ELECTRIC STRIKE MAY ALSO BE RELEASED WITH THE DESK MOUNTED PUSH BUTTON LOCATED AT RECEPTION. THE OUTSIDE (CORRIDOR SIDE) LEVER WILL LOCKED/UNLOCKED BY AUTHORIZED KEY. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 30

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|-----|-----------------------------|---------------------------|--|----------------------|------------|
| 1 | EA | CONT. HINGE | 112XY | | 710 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC LLL 03A L283-150 | | 643e | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE 12/24 VAC/VDC | | 630 | VON |
| 1 | EA | RECESSED PULL | (BY DOOR MFR) | | | |
| 1 | EA | OH STOP & HOLDER | 90H | | 643E/7 16 | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 | | 695 | LCN |
| 1 | SET | WEATHER SEAL | (BY FRAME MFR) | | | |
| 1 | EA | DOOR SWEEP | 39D | | D | ZER |
| 1 | EA | THRESHOLD | 65A-V3-223 | | A | ZER |









Hardware Group No. 31

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-----------------|------------------------|--|--------------|-----|
| 1 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N | | 626 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE 12/24 VAC/VDC | | 630 | VON |
| 1 | EA | OH STOP | 90S | | 643E/7 16 | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 | | 695 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | | 630 | IVE |




Hardware Group No. 32

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------------------------|------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | REMOVABLE MULLION | KR4954 |  | 689 | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-DT |  | 626 | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-NL |  | 626 | VON |
| 4 | EA | CYLINDER (MATCH EXISTING SYSTEM) | | | 626 | |
| 1 | EA | OH STOP & HOLDER | 90H |  | 652 | GLY |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC |  | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 1 | EA | WALL STOP/HOLDER | WS40 |  | 626 | IVE |








Hardware Group No. 33

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|----------------|----------------|---|--------|-----|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | STOREROOM LOCK | L9080BDC 03N |  | 626 | SCH |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |








Hardware Group No. 34

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|----------|-----------|---------------------------|------------------------|---|------------|------------|
| 1 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | CLASSROOM DEADBOLT | B663BDC 12-631 |  | 626 | SCH |
| 1 | EA | PUSH PLATE | 8200 4" X 16" |  | 630 | IVE |
| 1 | EA | PULL PLATE | 8302 8" 4" X 16" |  | 630 | IVE |
| 1 | EA | OH STOP | 90S |  | 652 | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA MC ST-2730 |  | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |

Hardware Group No. 35

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | | FINISH | MFR |
|-----|----|-------------------------------------|------------------------|---|--------|-----|
| 2 | EA | CONT. HINGE | 224XY |  | 628 | IVE |
| 1 | EA | REMOVABLE MULLION | KR4954 |  | 689 | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-DT |  | 626 | VON |
| 1 | EA | PANIC HARDWARE | CDSI-98-NL |  | 626 | VON |
| 4 | EA | CYLINDER (MATCH EXISTING SYSTEM) | | | 626 | |
| 2 | EA | SURFACE CLOSER | 4111 EDA MC |  | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS |  | 630 | IVE |
| 2 | EA | WALL STOP/HOLDER | WS40 |  | 626 | IVE |

Hardware Group No. 36

GATE

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | FINISH | MFR |
|-----|----|------------------------------|--------------------------|--------|-----|
| 1 | EA | PANIC HARDWARE | LD-98-NL-OP-110MD-WH | 628 | VON |
| 1 | EA | CYLINDER | (MATCH EXISTING SYSTEM) | 626 | |
| 1 | EA | ELECTRIC STRIKE | 9400 | 630 | HES |
| 1 | EA | DOOR PULL | VR910 NL | 630 | IVE |
| 1 | EA | ACCESS CONTROL | (BY SECURITY CONTRACTOR) | | |
| | | BALANCE OF HDWE BY GATE MFR. | | | |

PRESENTING AN AUTHORIZED CREDENTIAL WILL ENERGIZE THE ELECTRIC STRIKE TO ALLOW ACCESS. FREE EGRESS IS ALWAYS ALLOWED. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT AND ALL RELATED TRADES,

Hardware Group No. 37

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | FINISH | MFR |
|-----|----|-------------------|------------------------------|--------|-----|
| 1 | EA | CONT. HINGE | 224XY | 628 | IVE |
| 1 | EA | OFFICE/ENTRY LOCK | L9050BDC 03N 09-544 L283-711 | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4111 EDA | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | 630 | IVE |
| 1 | EA | WALL STOP | WS33X | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | BK | ZER |

Hardware Group No. 38

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | FINISH | MFR |
|-----|----|-------------------|------------------------------|--------|-----|
| 1 | EA | CONT. HINGE | 224XY | 628 | IVE |
| 1 | EA | OFFICE/ENTRY LOCK | L9050BDC 03N 09-544 L283-711 | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4011 MC | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | 630 | IVE |
| 1 | EA | WALL STOP | WS33X | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | BK | ZER |

Hardware Group No. 39

EACH TO HAVE:

| QTY | | DESCRIPTION | CATALOG NUMBER | FINISH | MFR |
|-----|----|--------------------|------------------------|--------|-----|
| 1 | EA | CONT. HINGE | 224XY | 628 | IVE |
| 1 | EA | CLASSROOM DEADBOLT | B663BDC 12-631 | 626 | SCH |
| 1 | EA | PUSH PLATE | 8200 4" X 16" | 630 | IVE |
| 1 | EA | PULL PLATE | 8302 8" 4" X 16" | 630 | IVE |
| 1 | EA | SURFACE CLOSER | 4111 EDA | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | 630 | IVE |
| 1 | EA | WALL STOP | WS33X | 626 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | BK | ZER |

END OF SECTION 08 7200