

## **SECTION 08710 DOOR HARDWARE**

### **PART 1 GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work of this section.

#### **1.2 DESCRIPTION**

- A. Provide all work necessary to complete all finish hardware work as shown on the drawings or inferable there from and/or specified herein, in accordance with the requirements of the Contract Documents.

#### **1.3 RELATED SECTIONS**

- A. Section 06200: Finish Carpentry
- B. Section 08110: Steel Doors and Frames
- C. Section 08210: Wood Doors
- D. Section 08300: Special Doors
- E. Section 08400: Entrances and Store Fronts
- F. Section 13800: Building Automation and Control: Building monitoring system
- G. Section 16140: Building Wire and Cable: Power supply to electric hardware devices

#### **1.4 DETAILS OF WORK**

- A. Refer to drawings, details and schedules for items requiring finish hardware. It is the intent of this section to include all finish hardware required for the project, except for items which are specifically noted as being specified in other sections of the specifications.
- B. Coordinate the application of hardware items with door and frame details and with methods of fastening as hereinafter specified.
- C. Furnish complete templates, schedules and fastening details to door and frame manufacturers and other trades requiring same, to insure doors and frames are properly cut, reinforced and prepared to receive hardware.
- D. Single source, where several manufacturers are specified for one type of hardware, furnish only the products of one manufacturer.
- E. Work includes, but not limited to the following items;
  - 1. Hinges
  - 2. Continuous Hinges
  - 3. Lock and latch sets
  - 4. Deadlocks

5. Exit devices and removable mullions
  6. Door closers
  7. Electro-magnetic locks
  8. Power supply
  9. Key switch
  10. Push Plate Switches
  11. Station Console
  12. Electric Strikes
  13. Power door operator
  14. Overhead stops and holders
  15. Push/Pulls/Pull Plates
  16. Anti-Vandal Pulls
  17. Kick and armor plates
  18. Flush bolts
  19. Floor and wall stops
  20. Thresholds
  21. Astragals
  22. Weatherstripping
  23. Gasketing
  24. Door silencers
  25. Key cabinet
- F. Work specified to be provided under other sections, includes rough carpentry and items of finish hardware so specified or provided as part of other sections, including the following:
1. Hardware For
    - a. Windows
    - b. Toilet partitions
    - c. Operable partitions
    - d. Lockers
    - e. Cabinets or casework
    - f. Roof scuttles
    - g. Fence or gates
    - h. Overhead doors

#### 1.5 REQUIREMENTS OF REGULATORY AGENCIES

- A. Furnish finish hardware in accordance with the requirements, under the published procedures of the following recognized agencies. Wherever possible all hardware and its application are intended to comply with the latest edition of International Building Code (IBC), ICC/ANSI A117.1, NFPA 80, NFPA 101 and NFPA 105. It is the intent of this specification that all hardware and its application shall comply or exceed the standards for labeled openings. In case of conflict between type of hardware specified and type required for fire protection, furnish type required by NFPA and UL.
- B. It is the intent of this specification that all hardware and its application shall comply with the standards as listed. The latest publication edition of each standard applies.
- C. Standards
- |                     |   |
|---------------------|---|
| 1. ANSI/BHMA A156.1 | Butts and Hinges                          |
| 2. ANSI/BHMA A156.2 | Bored and Pre-assembled Locks and Latches |
| 3. ANSI/BHMA A156.3 | Exit Devices                              |
| 4. ANSI/BHMA A156.4 | Door Controls – Closers                   |
| 5. ANSI/BHMA A156.5 | Auxiliary Locks and Associated Products   |
| 6. ANSI/BHMA A156.6 | Architectural Door Trim                   |

7. ANSI/BHMA A156.7	Template Hinge Dimensions
8. ANSI/BHMA A156.8	Door Controls – Overhead Holders
9. ANSI/BHMA A156.10	Power Operated Pedestrian Doors
10. ANSI/BHMA A156.13	Mortise Locks and Latches
11. ANSI/BHMA A156.15	Life Safety Closer/Holder Release Devices
12. ANSI/BHMA A156.16	Auxiliary Hardware
13. ANSI/BHMA A156.18	Materials and Finishes
14. ANSI/BHMA A156.19	Power Assist & Low Energy Power Operated Drs.
15. ANSI/BHMA A156.21	Thresholds
16. ANSI/BHMA A156.22	Door Gasketing and Edge Seal Systems
17. ANSI/BHMA A156.23	Electromagnetic Locks
18. ANSI/BHMA A156.25	Electrified Locking Devices
19. ANSI/BHMA A156.26	Continuous Hinges
20. ANSI/BHMA A156.28	Recommended Practices for Keying Systems
21. ANSI/BHMA A156.29	Exit Locks, Exit Alarms, Alarms for Exit Devices
22. ANSI/BHMA A156.31	Electric Strikes and Frame Mounted Actuators
23. ANSI/BHMA A156.115	Hardware Preparation in Steel Doors and Frames
24. ANSI/BHMA A156.115-W	Hardware Preparation in Wood Doors

## 1.6 QUALITY ASSURANCE

- A. Hardware items providing accessibility and usability for the physically handicapped shall comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- B. All products listed herein are intended to describe quality, type and function of items listed. Accuracy, and strict compliance with the samples and descriptive literature upon which acceptance is based, shall be the sole responsibility of this supplier.
- C. All work performed and all materials furnished shall be in conformity with the contract requirements.
- D. The supplier shall be responsible for the provisions, proper coordination and function of the finish hardware required for all openings.
- E. In the event the Architect finds the materials or the finished product in which the materials are used are not in complete conformity with the contract requirements and have resulted in an inferior or unsatisfactory product, the materials shall be removed and replaced by and at the expense of the supplier.
- F. The supplier shall submit to the owner written documentation from the manufacturer for the locksets, exit devices and closers, verifying all products were installed and adjusted properly in accordance with the templates and factory installation instructions. Following inspection by an authorized factory representative, the field report is to be sent directly to the project manager at Montgomery County Public Schools, with copies to the Contractor and Architect. This is a requirement of MCPS' warranty procedure.

## 1.7 SUPPLIER QUALIFICATIONS

- A. The hardware supplier shall meet the requirements of having an Architectural Hardware Consultant (AHC) as certified by the Door and Hardware Institute, as a full time employee of its organization. The Architectural Hardware Consultant shall be available during the course of work to consult with the Owner, Architect, or Contractor.
- B. As a requirement, the hardware supplier shall maintain a office and warehouse complete with a hardware inventory within a fifty (50) mile radius of the jobsite. The supplier shall further have a qualified field service staff available to service the project properly.
- C. Supplier shall be an experienced door hardware supplier who has completed projects with electrified hardware similar in material, design and scope to that specified for this project.

- D. After delivery of hardware and prior to its installation, the hardware consultant shall meet with the Architect and Contractor to compare final samples with actual hardware delivered, to assure acceptability, shall review catalogs, brochures, templates, installation instructions and the final hardware schedule, and shall rehearse installation, procedures and workmanship, with special emphasis on unusual conditions, so as to ensure correct technique of installation, and coordination with other work.

## 1.8 SUBMITTALS

- A. Submit for review, six (6) complete copies of the finish hardware schedule, covering complete identification of all items required for the project. The hardware schedule shall have the door hardware sets organized indicating the specification set number in the same order as the door hardware schedule under part 3, 3.4. These schedules shall be prepared in conformity with the best practice and standards of the Door and Hardware Institute.
  - 1. Contents: Include the following information
    - a. Six (6) complete copies of catalog cuts and/or technical data sheets identifying each item of hardware used in the schedule.
    - b. Six (6) complete copies of electrical system design wiring diagrams, identifying each electrified item, their connection and correlation with applicable hardware headings.
    - c. Hardware sets shall be cross referenced to the Architect's set numbers under 3.04. Provide on a separate door index sheet, the Architect's door number, hardware set number, and hardware schedule heading number.
    - d. Door and frame sizes, materials, and label requirements.
    - e. Explanation of abbreviations, symbols, and product codes.
    - f. Manufacturer of each item.
    - g. Complete product identification, type, function, label, size, hand, and finish.
    - h. Mounting locations, 2.3.
    - i. Fastening information.
    - j. Horizontal hardware schedules are not acceptable.
  - B. Furnish six (6) complete sets of wiring diagrams for electrified door hardware indicating power, signal and control systems. Include system schematic, point to point wiring diagram, riser diagram and elevation drawing of each opening. Interface between electrified door hardware and fire alarm system, detection devices, access control and building control system. Include description of each hardware function, location, sequence of operation and interface with other building control systems.
  - C. Hardware schedules submitted without the above requirements will be considered incomplete and will NOT be reviewed and will be returned directly to the Contractor.
  - D. The review of a schedule, shop drawing, or product data shall not be considered as a guarantee of the measurements or building conditions or that the schedule, shop drawings, or product data have been checked to see that item submitted properly fits the building conditions. This review shall not relieve the Contractor of the responsibility for furnishing material or performing work as required by the contract documents, for correctness of dimensions and quantities, or for proper coordination of details and interfaces among trades.
  - E. The hardware supplier is to provide a separate key schedule in excel spreadsheet format which is to be included with the delivery of the key cabinet. The spreadsheet columns shall be laid out to include the following columns: hook number, key code, location, door number, owner's room number, and owner's room name. The MCPS' interior signage chart shall be provided through the Contractor.
  - F. Hardware schedules, product data, and samples shall bear the Contractor's stamp certifying they have been coordinated and reviewed by the Contractor for completeness and compliance with the contract documents.

- G. Re-submittal procedures shall follow the same procedures as the initial submittal with the schedule revision date noted.
- H. The hardware supplier shall arrange a keying meeting with the Contractor and Owner to establish keying requirements for the project immediately upon receipt of the approved schedule.
- I. After approval of the hardware schedule the hardware supplier shall furnish four (4) complete sets of as-built documents with manufacturers' warranties and product data. All information will be submitted bound in a hardware schedule cover and shall contain the following information in the order as listed
  - 1. Copy of final hardware schedule.
  - 2. Copy of final keying schedule.
  - 3. Manufacturers catalog cuts in the order as listed in the index.
  - 4. Catalog cuts, color coded and identified.
  - 5. Warranties to be listed in order of index. The supplier shall make available to the owner any available service manuals for locksets and exit devices.
  - 6. Complete point to point wiring diagrams.

#### 1.9 SAMPLES

- A. If requested by the Owner and/or Architect submit samples of each typical item of exposed hardware in the specified finish, tagged with full description for coordination with the hardware schedule. Architect's review of samples will be for design, pattern, finish, and color only. All other requirements are the exclusive responsibility of the Contractor.
- B. Samples Required
  - 1. Hinges, each type.
  - 2. Lockset complete with trim.
  - 3. Exit device, rim type with trim.
  - 4. Pulls, complete with mounting accessories.
  - 5. Push plate with fasteners.
  - 6. Surface mounted closer.
  - 7. Overhead holder/stop.
  - 8. Floor and/or wall bumpers.
- C. After final review, and approval by the Architect, samples will be turned over to the Contractor for comparison with hardware delivered for installation. Unblemished samples may be used as part of the work.

#### 1.10 PRODUCT HANDLING AND STORAGE

- A. Package and label each item of hardware separately. Tag each item in accordance with the final hardware schedule. Each package shall contain appropriate fastenings, instructions and installation templates. Protect all items from loss or damage in shipment.
- B. The Contractor shall be responsible for receiving and providing an adequate secured storage area for all hardware. Materials shall be stored so as to assure the preservation of its quality and acceptability for the work. Stored material shall be located to facilitate its prompt inspection by the Architect and MCPS.

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- A. Refer to hardware sets for application of individual hardware items as referenced to each opening or function.

### **2.2 HARDWARE FINISHES**

- A. Produce finishes to exact match with Architect's selected samples. Variances in the color of each finish shall be minimized regardless of whether the base metal is cast, forged or stamped, or when plating is applied over steel, brass or bronze. Comparative finishes shall appear the same when viewed two feet apart and three feet away. The two samples shall be under the same lighting conditions and on the same relative plane. The finish for each item of hardware shall match the finish selected for lock and latch sets. The type of finish for each hardware item is indicated in the hardware sets.

### **2.3 HARDWARE MOUNTING HEIGHTS**

- A. The following mounting heights supersede manufacturer's recommendations and shall apply throughout the work unless otherwise shown or specified.
  - 1. Centerline of strike for levers: 40-5/16"
  - 2. Centerline of exit device touch pad: 40"
  - 3. Centerline of strike for deadlocks: 48"
  - 4. Centerline of push plates and pull plates: 41"
  - 5. Centerline of door pulls: 38"
  - 6. Centerline of push bars: 40"

### **2.4 FASTENERS**

- A. Provide concealed fastenings wherever possible. The use of self-tapping or sheet metal screws is prohibited on all hardware except kickplates and push plates. Install all items of hardware with only the manufacturer's approved fasteners.
  - 1. Concealed Fasteners: Furnish hardware items complete with appropriate type and length of screws or other fastenings suitable to ensure proper application.
  - 2. Exposed Fasteners: Furnish hardware with countersunk Phillips oval head type screws where concealed fastening is not possible. The finish or color of these screws shall harmonize with the product as to finish and material.

### **2.5 MATERIALS AND MANUFACTURERS**

- A. Acceptable manufacturers for the various items specified are listed. Products of the underlined manufacturers are ones used in this specification to denote the quality, type, Design and function of hardware required.
- B. The items of hardware as specified by manufacturer's name and product nomenclature shall comply with any additional features and/or modifications such as base material, finishes, functions, fasteners, etc. The manufacturer and supplier shall be responsible to comply with these requirements.
- C. Provide special features as specified herein, which may supersede the manufacturer's standard product.
- D. ONLY EQUIVALENT PRODUCTS OF THE OTHER LISTED MANUFACTURERS WILL BE ACCEPTED. NO OTHER SUBSTITUTES WILL BE ACCEPTED.

1. Hinges: Hager – Ives – McKinney
2. Continuous Hinges: Hager – Markar – McKinney - Ives
3. Locksets/Latchsets: Schlage – Sargent – Corbin Russwin
4. Exit Devices: Von Duprin
5. Overhead Closers: LCN – Sargent
6. Overhead Stops/ Holders: Glynn-Johnson – Sargent – ABH
7. Electro-Magnetic Locks: Schlage Electronics
8. Power Supply: Von Duprin
9. Key Switch: Schlage Electronics
10. Power Door Operator: LCN
11. Push Plate Switch: MS-Sedco
12. Station Console: Securitron
13. Bollard Post: Wikk
14. Electric Strike: Von Duprin – Folger-Adams
15. Push/Pull Plate: Trimco – Rockwood – Hager
16. Anti-Vandal Pull: Trimco
17. Kick and Armor Plates: Hager – Ives – Rockwood
18. Flush Bolts: Ives – Hager – Trimco – Rockwood
19. Coordinators: Ives – Hager – Trimco
20. Floor and Wall Stops: Ives – Hager – Trimco – Rockwood
21. Thresholds: National Guard - Pemko –Hager
22. Weatherstripping/Gasketing: National Guard – Pemko –Hager – Zero - DHSI
23. Astragals: National Guard – Pemko – Hager
24. Door Silencers: Ives – Hager – Rockwood
25. Key Cabinet: Telkee – Lund

## 2.6 HINGES

- A. All hinges shall be of the type and size as specified and shall conform to the latest edition of ANSI/BHMA A156.1 standards and in compliance with NFPA 80 Table 6.4.3.1. Package all hinges with machine or wood screws as required by door and frame construction.
- B. Hinges shall be of flush ball bearing design with flat bottom tips and non-rising pins.
- C. All non-ferrous type hinges shall be furnished with stainless steel pins as a standard and all exterior hinges shall be stainless steel with a non-removable pin (NRP) feature per each hinge. Provide safety stud feature (SH) at hinges where specified.
- D. Where the door jamb, trim or wall projects to such an extent that the width of the hinge leaf specified will not allow the door to properly clear the frame or trim, the supplier shall furnish hinges of sufficient width to clear.
- E. For all doors over 3'-0" wide, the hardware set shall convert to heavy weight hinges.
- F. Types and Manufacturers

<u>Hager</u>	<u>Ives</u>	<u>McKinney</u>
BB1279	5BB1	TB2714
BB1168	5BB1HW	T4B3786
BB1191	5BB1	TB2314
BB1199	5BB1HW	T4B3386
1250	3SP1	1522

## 2.7 CONTINUOUS HINGES

- A. Heavy Duty Aluminum Hinges

1. All continuous hinges shall be of the type as specified and meet the conformance criteria of ANSI/BHMA A156.26. Hinges shall be BHMA certified and meet the requirements of UBC7-2 and UL10-C.
2. Continuous hinges shall be manufactured of 6063-T6 anodized aluminum. All aluminum components to be clear anodized in accordance with 202-R1.
3. Hinges shall consist of two full height bearing geared levers, geared together for the full length of the hinge and joined with a cover channel.
4. All hinges are to be heavy duty type design with a minimum of 32 each bearings, up to a 7'-0" height. Bearings are to be completely concealed in a full cover channel.
5. Where the door jamb, trim or wall projects to such an extent that the width of the hinge leaf specified will not allow the door to properly clear the frame or trim, the supplier shall furnish hinges of sufficient width to clear.
6. Types and Manufacturers

<u>Hager</u>	<u>McKinney</u>	<u>Ives</u>
780-224HD	MCK-25HD	224HD

B. Stainless Steel Continuous Hinges and Edge Guards

1. All stainless steel hinges shall be 14 gauge, type 304 with ¼" diameter stainless steel pin and nylon bearings.
2. All edge guards shall be 16 gauge, type 304, full door height.
3. Types and Manufacturers

<u>Markar</u>	<u>Hager</u>	<u>Ives</u>
FM300	790-900	700
HG-311	790-911	711
EG308	182P-.062	----

C. All fire rated hinges are to be certified by UL and meet the standards of UL10C and UBC7-2.

D. Install all hinges with only the manufacturer's self drilling, hardened plated screws.

2.8 MORTISE LOCKS AND LATCHES

A. General: Furnish mortise type locksets and latchsets with anti-friction deadlocking latch bolts as scheduled. All locksets and latchsets to be furnished complete with trim, armor fronts and 6 pin cylinders, concealed fastenings, washers, and bushings. Provide wrought or black plastic box strikes for all locksets with curved lip strikes of sufficient length to protect frames.

B. All locksets and cylinders shall be of the same manufacturer. Locksets with cylinders of different manufacturer are not allowed.

1. Provide a minimum ¾" throw stainless steel latchbolt.
2. Provide a minimum 1" stainless steel deadbolt with hardened steel rollers.
3. All levers to be solid cast.
4. All thumbturns to be ADA compliant.

C. The specified manufacturers shall be certified as being in compliance with the latest edition of ANSI/BHMA A156.13 standards and part of the continuing program of passing prescribed tests.

D. Prior to final acceptance by the owner, all locksets shall be inspected, after installation, by a factory representative to insure the proper adjustment and operation. The representative shall submit a written report to the Contractor with copies to the Architect, Owner, and Hardware Supplier upon completion of this service. This report shall include any installation

problems, indicating door numbers and location, along with recommendations to correct the problem. It is the responsibility of the hardware supplier to initiate this inspection with the manufacturer.

E. Manufacturers Lock Series and Trim

1. Lock and Latchsets: One of the following:

- a. Schlage: L9000 Series 17 Design: Cast lever x B Rose
- b. Sargent: 8200 Series LNP Design: Cast lever x LN Rose
- c. Corbin Russwin: ML2000 Series: Princeton PSA Design: Cast lever
- d. Classroom Security Locksets

- (1) Schlage L9457
- (2) Sargent 8240
- (3) Corbin Russwin ML2072

e. Storeroom Function Locksets shall be one of the following

- (1) Schlage L9480 x less thumbturn
- (2) Sargent 8250 x 35 adj. cyl. x less thumbturn
- (3) Corbin Russwin ML2029 x 1100-100-A01 x less thumbturn

f. Locksets for Maintenance Department rooms

- (1) Best: 45H Series 14 Design: Cast lever x H Rose
- (2) Best 45H-FD x less thumbturn

2.9 EXIT DEVICES

A. General: Furnish panic devices of the design, type, function, and finish as specified herein.

- 1. All devices shall be a push through type touch pad design. Touch pads are to be stainless steel. Lexan push pads are not acceptable.
- 2. Provide "XP" feature at all exterior doors.
- 3. Latchbolts shall have a two piece  $\frac{3}{4}$ " throw and incorporate a deadlatching feature.
- 4. Manufacturers must certify that their products meet the requirements of ANSI/BHMA standard A156.3.
- 5. All exit devices shall meet the performance tests found in the Underwriters Laboratories Standard UL305 and bear the UL listing mark for panic hardware.
- 6. Fire exit devices shall be certified by Underwriters Laboratory to be in compliance with positive pressure standards UBC7-2 and UL10C.
- 7. All exit devices shall be installed with sex bolts and trim shall be through bolted.
- 8. Provide keyed removable mullions of the type and finish specified. Mullion cylinders are to be keyed to building standard key system, keyed-alike and master keyed, as directed by the Owner.
- 9. Prior to final acceptance by the owner, all exit devices shall be inspected, after installation, by a factory representative to insure proper adjustment and operation. The representative shall submit a written report to the Contractor with copies to the Architect, Owner and Hardware Supplier upon completion of this service. This report shall include any installation problems, indicating door numbers and location along with recommendations to correct the problem. It is the responsibility of the hardware supplier to initiate this inspection with the manufacturer.

## B. Exit Devices

### 1. Types and Manufacturers

Von Duprin  
XPCD98NL-OP  
XP98NL-17  
XP98EO  
XPCD98EO  
XP9875L  
XP98L  
SD-EL-XP98NL-OP  
CD98EO  
98NL-17  
98NL-OP  
98L-F-17  
98L-F-17-BE  
98E0-F  
9875L-F-17  
98L-2-17  
98L-2-F-17  
9847-L-F-LBR  
9447-F-LBR  
98L-996L-17  
98L-F-996L-17  
KR4954 x 154 Stab.  
KR9954 x 499F x 154 Stab.

## 2.10 OVERHEAD SURFACE CLOSERS

- A. General: Closers shall be factory pre-adjusted and field adjusted if required by the Contractor to comply with the manufacturer's recommended installation instructions.
- B. Closers shall have following features.
  - 1. Cast iron body, fully hydraulic, adjustable spring power, full rack and pinion, independent all brass v-slotted adjusting valves for closing speed, latching speed, adjustable back-check and delayed action feature. All arms shall be heavy duty solid forged steel. Pinion shall have full compliment needle bearings. The bore diameter of the cylinder shall be a 1.5" diameter.
- C. Schedule indicates regular, extra duty, parallel and built-in stop cushion feature arms. Provide parallel arm closers where conditions will allow for proper function.
- D. The specified manufacturers shall certify compliance with and the continuing program of passing prescribed tests as indicated under the latest edition of ANSI/BHMA A156. 4 and A156.15.
- E. All closers shall be warranted from defects in materials and workmanship for a period of ten (10) years from the date of manufacture.
- F. Closers shall conform to UL10C/NFPA252 Positive Pressure Fire Test.
- G. Provide steel sex bolts for all closers installed on all doors.
- H. Prior to final acceptance by the owner, all closers shall be inspected, after installation, by a factory representative to insure proper adjustment and operation. The representative shall

submit a written report to the Contractor with copies to the Architect, Owner and Hardware Supplier upon completion of this service. This report shall include any installation problems, noting door numbers and location, along with recommendations to correct the problem. It is the responsibility of the hardware supplier to initiate this inspection with the manufacturer.

I. Types and Manufacturers

<u>LCN</u>	<u>Sargent</u>
4010-DEL	281-0-DEL
4011	281-0
4111	281-P10
4111-CUSH-4110-30	281-PS-125V
4111H-CUSH-4110-30	281-PSH-125V
P4031-201	1431-P10-63-0191

2.11 OVERHEAD STOPS AND HOLDERS

A. General: Furnish surface-mounted overhead stop/holder of the type, design, and function as specified herein.

1. All holders shall be non-handed and furnished complete with proper fasteners.
2. All holder arms and channels shall be made of extruded bronze or stainless steel.
3. Shock absorber to be a shock absorbing coil steel spring with a rubber insert.
4. Furnish steel sex bolts on all type doors

B. All products herein shall comply with the standards of ANSI/BHMA A156.8.

C. Types and Manufacturers

<u>Glynn Johnson</u>	<u>Sargent</u>	<u>ABH</u>
450S	1540S	4420
450F	1540F	4430
450H	1540H	4410
90H	590H	9010
90S	590S	9020

2.12 POWER SUPPLY

A. General: Furnish power supply specifically designed to interface with all designated electrical security components.

1. Power supplies shall be Underwriter Laboratories (UL) listed and test to meet UL 1012 and UL 294 specifications.
2. The unit shall provide a modular interface with a minimum of twelve independent stations and alarm system. Output voltage shall be filtered and regulated.
3. The unit shall have a NEMA, UL listed enclosure, with battery backup and a key locking cover.
4. Types and Manufacturers

Von Duprin  
 PS873BK  
 PS873BK-2  
 PS873BK-FA  
 PS873BK-2-FA  
 PS9

## 2.13 KEYSWITCHES

- A. General: Furnish heavy duty keyswitches of the design and function as specified herein.
1. Keyswitch shall have a cast housing with a concealed high security attachment, anti-tamper screws, plastic shroud to protect wiring, and a 7 amp switch.
  2. The cover plate shall be of stainless steel construction.
  3. Types and Manufacturers

<u>Schlage Electronics</u>	<u>MS-Sedco</u>
653-14 x L2 x HDP	730-L

## 2.14 POWER DOOR OPERATOR SYSTEM

- A. General: Provide electronically powered low energy door operators as specified herein.
- B. System shall conform to ANSI/BHMA standards A156.19, combining a control system with heavy duty electrically powered door operators to provide easy access for physically handicapped persons, and shall provide full closing force required to control closing and latching of door.

1. Control system shall be designed to provide adjustable opening force, delay times sequence adjustable hold open delay up to 30 seconds, adjustable closing power, and shall comply with ADA reduced opening force requirements. System shall have a motor/clutch assembly controlled by a microprocessor based control module to open doors slowly to 90°, with a breakaway function to prevent damage to the operator. Door operator to operate as conventional closer if deactivated by fire alarm system or loss of power.
2. Furnish complete system with components necessary for proper installation of door operator including wall or jamb plate actuators. Actuators shall be provided at each side of the door opening for access from either direction. Provide two (2) actuators per door opening.
3. All power operators shall be warranted from defects in materials and workmanship for a period of two (2) years from date of manufacture.
4. Types and Manufacturers

LCN  
4640

- C. NOTE: ELECTRICAL CONTRACTOR SHALL PROVIDE ALL POWER WIRING, JUNCTION BOXES, CONDUIT, RECTIFIERS, TRANSFORMERS, ETC., INCLUDING ALL CONNECTIONS AS REQUIRED TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.

## 2.15 PUSH PLATE SWITCHES

- A. General: Provide push plate switches of the type, design and function specified.
1. Push plate switches shall be provided at each side of the door opening for access from either direction.
  2. Plates to be stainless steel with etched and paint filled legends.
  3. Switches are to be field wired direct to the keyswitches to provide secure activation of the automatic door.

4. Types and Manufacturers

MS-Sedco  
59-HSS (Interior/Exterior)  
619-HSSV (Vestibule)

2.16 STATION CONSOLE

A. General: Provide station console, complete with black housing (CRN-164), for control and monitoring of electro-mechanical exit devices and electric strike.

1. The supplier shall provide the required pushbutton functions to operate specified door hardware.
2. Provide electrical specification and user diagram for coordination with electrical contractor.
3. Type and Manufacturer

Securitron  
SLP4A

NOTE: ELECTRICAL CONTRACTOR SHALL PROVIDE ALL POWER, WIRING, CONDUIT, ETC. AS REQUIRED TO COMPLETE THE SYSTEM.

2.17 ELECTROMAGNETIC LOCKS

A. General: Furnish electromagnetic locks of the design, type function as specified herein, designed to interface with electrical security components.

1. Locks shall be concealed shear or surface type.
2. Locks must meet the requirements of ANSI/BHMA standards A156.23.
3. Shear type locks shall provide a minimum of 2700 lbs. holding force with fail-safe feature, releasing upon loss of power.
4. Locks are to be furnished with a door status monitor and magnetic bond sensor.
5. All locks shall have a manufacturer's limited warranty of five (5) years on the magnetic coil and one (1) year on the electronic control module.
6. Provide mounting accessories including filler plates, angle brackets, adapter brackets as needed for proper installation.
7. Types and Manufacturers

Schlage Electronics  
280+ x MBS  
MF70 x DSM x MBS

2.18 BOLLARD POSTS

A. General: Provide bollard posts complete with switch of the type and design specified.

1. Bollard post to be round, aluminum clear finish 215R1.
2. Provide curved switch 6C-3WR in stainless steel with blue in-fill.
3. Surface mount per manufacturer's installation template and instructions.
4. Type and Manufacturer

Wikk  
BPR Series

2.19 ELECTRIC STRIKES

A. General: Furnish electric strikes of the design and function specified, designed to interface with electrical security components.

1. Electric strikes shall meet the requirements of UL Standard 1034 and ANSI/BHMA A156.31.
2. Strikes shall be used with mortise locksets as specified.
3. Operation shall be fail-secure.
4. Power requirements: 24 VDC.
5. Type and Manufacturer

<u>Von Duprin</u>	<u>Folger-Adams</u>
6210	712-75

2.20 PUSH/PULL PLATES

- A. General: Push plates and pull plates shall be provided as scheduled.
- B. All plates shall be drilled and countersunk approximately 6" on centers. All plates shall be furnished with stainless steel Phillip's head screws with undercut heads to insure a tight bond on any type of door. All plates shall be packaged in individual envelopes, clearly marked and sized. All material shall be properly cartoned to protect the finish.
- C. All products shall comply with ANSI/BHMA standards A156.6 and A156.18.
- D. All push and pull plates shall have radius corners.
- E. All push plates shall be a minimum thickness .125.
- F. Push and pull plates to be cut for cylinders or thumb turns as required to comply with ADA height. Submit drawing for approval.
- G. All pull plates shall be a minimum thickness .050.
- H. Types and Manufacturers

<u>Trimco</u>	<u>Rockwood</u>	<u>Hager</u>
1807-4RC, 6 x 18	73 RC, 6 x 18	90R, 6 x 18
1017-3B-RC-CUS, 6 x 18	107 x 70RC, 6 x 18	43G, 6 x 18
1820 x CFC x 3-1/2 x 8	91 x CFC x 3-1/2 x 8	120L x CFC x 3-1/2 x 8

2.21 ANTI-VANDAL PULL

A. General: Furnish anti-vandal pulls of the design, type and finish as specified herein, designed to be compatible with the specified exit devices.

1. Pulls shall have trim bolts with no exposed fasteners.
2. Pulls shall be 1/8" thick stainless steel type 316 with features as specified.
3. Fasteners shall have stainless steel, 1/4-20 machine screws.
4. Fasteners shall be of appropriate length to allow for a minimum of 1/2" thread engagement into welded lugs.
5. Pulls shall comply with ADA requirement.
6. Types and Manufacturers

<u>Trimco</u>	
1097HA-FC-RC-SP	1096HA-FC-RC-SP

## 2.22 KICK AND ARMOR PLATES

- A. General: All kickplates and armor plates shall be .050 inch minimum thickness stainless steel, US32D. Plates to be beveled three edges (B3E), drilled and countersunk with stainless steel screws 5/8" minimum length with matching finish.
- B. All plates shall be in compliance with ANSI/BHMA standards A156.6.
- C. Provide kickplate and armor plate width of 1-1/2" less nominal door width on single doors and 1" less nominal door width on pairs of doors unless otherwise noted. Adjust width and height accordingly to compensate for any special hardware applications.
- D. Fire rated kickplates and armor plates shall be provided where required to comply with NFPA 80, 6.4.5. Stainless steel fire rated plates shall be die stamped with UL label.

## 2.23 MANUAL/AUTOMATIC FLUSH BOLTS AND COORDINATORS

- A. General: All flush bolts are to be furnished for pairs of doors as specified. Furnish minimum length of 12" for all rods, except where any door is higher than 7'-0", furnish the top bolt in a length sufficient to locate the flush bolt operator no more than 6'-0" above the finished floor. Comply with ANSI/BHMA A156.16. Furnish standard strikes with wrought boxes for top bolts. Furnish dustproof strikes for bottom bolts.
- B. Types and Manufacturers

<u>Ives</u>	<u>Hager</u>	<u>Trimco</u>	<u>Rockwood</u>
FB458	282D	3917	555
FB40	291D	3815	1942
CORXFB	297D	3094	1672
FB30	292D	3810	1842
FB358	283D	3913	5557
FB51P	292D/293D	-----	1845
FB41P	294D	-----	1945

## 2.24 DUSTPROOF STRIKES

- A. General: Furnish dustproof strikes as indicated.
- B. Types and Manufacturers

<u>Ives</u>	<u>Trimco</u>	<u>Rockwood</u>
DP2	3911	570
DP1	3910	570

## 2.25 FLOOR AND WALL STOPS

- A. General: Furnish floor and/or wall stops as indicated, unless otherwise specified. Comply with ANSI/BHMA A156.16. All stops shall be heavy duty cast.
- B. Types and Manufacturers

<u>Ives</u>	<u>Hager</u>	<u>Trimco</u>	<u>Rockwood</u>
WS401CCV	234W	1270CV	405

FS436	241F	1210	441
FS441	252F	1231	483
FS438	243F	1212	442
FS495	326W	1260W	490
FS496	326F	1263	491

## 2.26 THRESHOLDS

- A. General: Furnish thresholds of the type, finish and material as specified.
- B. Provide extra heavy extruded aluminum thresholds, .25 thickness, with support leg and skid resistant abrasive nickel-aluminum composite, tested to meet UL410 and the requirements of ASTM-D-2047.
- C. Fasteners shall be of stainless steel machine screws with machine screw lead anchors. The length of the screw should be the proper length to allow for a minimum of 3/4" thread engagement in the floor or anchoring device.
- D. All thresholds are to be factory drilled and countersunk.
- E. All aluminum extrusions are to be of alloy 6063 hardness T-5.
- F. All material shall be in compliance with ANSI/BHMA standards A156.21.
- G. Types and Manufacturers

<u>National Guard</u>	<u>Pemko</u>	<u>Hager</u>
425HD-SIA	1715AK	427SCA
410	173A	418S

## 2.27 WEATHERSTRIPPING - GASKETING

- A. General: Furnish all weatherstrip, gasketing, door bottoms and astragals as specified.
- B. All clear anodized nylon brush products to have gray brush finish.
- C. The specified weatherstripping and gasketing shall have been tested and certified by the manufacturer that the products meet the following standards. Manufacturer's products that do not meet these requirements are not acceptable.
  - 1. UL10C/NFPA252 (Positive Pressure Fire Test)
  - 2. UL1748/NFPA105 (Smoke and Air Infiltration)
  - 3. "S" labeled – complies with UBC7-2
  - 4. Acoustical tested – ASTM E90-97
- D. All gasketing material shall be in compliance with ANSI/BHMA standard A156.22 for door gasketing systems.
- E. Provide, except as otherwise indicated DHSI #105L, #105L-3HJ, Cush-N-Seal gasketing.
  - 1. Seals and gasketing shall maintain an STC rating of 33 on sealed openings as well as providing requirements for smoke gasketing to meet NFPA standards.
    - a. Any opening, allowing light to pass the frame perimeter (exclusive of the door bottom) shall be rejected.

- b. Gasket that binds the door, requiring more than 15# to release the latch is unacceptable.
- c. Filing of strike plates shall be unacceptable.
- d. To avoid self-adhesive failure, self adhesive frame seals shall be inelastic and shall not be subject to stretching.
- e. Where positive pressure labeling is required, surface applied intumescent, on either the door or frame is unacceptable.

F. Types and Manufacturers

	National Guard	Pemko	Hager	Zero	DHSI	
Gasketing	_____	_____	_____	_____	105L CNS	
Gasketing	_____	_____	_____	_____	105L CNS – 3HJ	
Gasketing	107SA	379S	864S	870	_____	
Gasketing	155S	303AS	891S	8303	_____	
Adj Door Btm SWE	_____	_____	_____	_____	AMDB3-3	x
Door Bottom	312V	234AV	774S	253A	_____	
Auto Door Btm	422N	434	743S	369A	_____	
Door Sweep	C627A	3452CNB	770S	8198A	_____	
Door Sweep	C607A	18061CNB	802S	8192A	_____	
Astragal	OV633A x 1" brush	18041CNB x 1" brush	802S x 1" brush	8193AA-PSA	_____	
Astragal	A605A	18041CNB	802S	8193AA-PSA	_____	
Rain Drip	16A	346C	810S	142A	_____	
Mullion Seal	5100-S	_____	_____	_____	_____	

2.28 DOOR SILENCERS

- A. Furnish for all hollow metal frames, three door silencers for each single door and two each for each pair of doors as manufactured by one of the following manufacturers:
  - 1. Ives – SR64
  - 2. Hager – 307D
  - 3. Rockwood – 608

2.29 KEY CONTROL SYSTEM

- A. General: Furnish a complete key system of the type specified.
- B. Provide key cabinet made of cold rolled, minimum 18-gauge furniture steel electro-welded. Doors shall have continuous brass pin piano type hinge. All locks shall be nickel plated with solid brass pin tumbler cylinder. Key cabinet and key control system shall accommodate all keys for this project plus fifty percent expansion.
  - 1. Key tags shall consist of two sets: Permanent self-locking key markers and loan key snap hook type with tag colors as follows: Red fiber marker of the permanent self-locking type which shall be engraved the legend, "File Key Must Not Be Loaned."
  - 2. Furnish for each hook a white key marker with snap hooks which shall be engraved "Loan Key."
- C. The hardware supplier shall include in their scope of work all labor necessary to completely layout the key index system and install all keys properly identified in the key cabinet. The permanent keys and key cabinet shall be delivered directly to the Owner.

- D. The hardware supplier shall attach a key tag to each change key and shall mark thereon the respective key symbol. Each group of keys shall be contained in a key gathering envelope, which shall include the factory key symbol.
  
- E. The Contractor shall be responsible for verifying that all locksets are installed in their proper location and that the key change operates the correct lock.
  
- F. The key cabinet shall be installed by the Contractor in a location selected by the Owner.
  
- G. Types and Manufacturers
  - 1. Telkee AWC-450-S System
  - 2. Lund 1205-AA
  
- H. Size of the key system is minimum requirement. Furnish appropriate size dependent on project, with a further allowance for expansion of not less than fifty percent (50%).

### 2.30 KEYS AND KEYING

- A. General: The specific keying requirements are to be determined in consultation with the Owner. The hardware supplier shall review the specific hardware functions with the Owner at the time of the keying review to assure the appropriateness of each of the hardware functions. Failure to make this review does not relieve the hardware supplier from providing the proper functions. The specific keying requirements and approval by the Owner is required prior to purchasing the locksets and cylinders from the manufacturer.
  
- B. Furnish a patented keyway, Schlage Everest, Sargent XC Series, Corbin Russwin, or Best patented system. All key blanks shall be available only from factory direct sources, not available from after market key blank manufacturers.
  
- C. On additions and renovations to existing buildings, keying systems are to be verified by the hardware supplier with the area maintenance depot. The manufacturer and existing keyway shall be maintained whenever possible. Any modifications will require authorization by MCPS.
  
- D. On all new construction, the factory shall allow for future expansion of the keying system. Provide to MCPS the bitting information for fifty (50) additional changes under the new Grand Master Key system.
  
- E. All keys shall be stamped "DO NOT DUPLICATE."
  
- F. All keys shall be nickel silver.
  
- G. Stamp all change keys with key symbol code.
  
- H. All locksets shall be grand master keyed, master keyed, and construction master keyed.
  
- I. All permanent keys, grand master, master keys, and change key blanks shall be delivered directly to the Owner in the following quantities:
  - 1. Grand master keys: 6 each
  - 2. Master keys: 10 per set
  - 3. Change keys: 3 per lock
  - 4. Construction Master keys: 12 each

5. Emergency Master keys: 12 each
6. Change key blanks: 200 each
7. Best Cylinders: 10 each (Owner's stock)

J. Maintenance Master Key System

1. The Owner shall determine the location Best locksets and cylinders under the maintenance master key system are to be used on the project. A representative of Best Lock and the Hardware Distributor will be required to meet with the Owner to finalize the keying requirements.
- K. The hardware supplier shall furnish ten (10) additional cylinders with all brass cores and three (3) keys per cylinder, as specified per the hardware set. The cylinders are to be delivered by the supplier direct to the office of Montgomery County Public Schools, Division of Construction.
- L. The Best lock representative shall contact the appropriate maintenance department direct, upon receipt of the approved hardware schedule to coordinate delivery requirements with MCPS.
- M. Provide Best patented key system cylinders and keys – B2 keyway.
- N. All Best construction cores shall be furnished with all brass cores for all new locksets, cylinders, and Owner's stock cylinders.
- O. All Best permanent cores and keys under the existing Best masterkey maintenance system are to be delivered directly to the Owner's representative at the area maintenance depot.
- P. Permanent Best cylinder cores under the maintenance masterkey system will be installed by MCPS.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION GENERAL**

- A. The Contractor shall be responsible for receiving and providing an adequate secured storage area for all hardware. Materials shall be stored to assure the preservation of its quality and acceptability for the work. Stored material shall be located to facilitate its prompt inspection by MCPS and the Architect.
- B. Sample Installation
1. The Contractor shall provide a sample installation to be reviewed and approved by the Architect, Owner, and a certified factory representative to establish the standard of quality and workmanship by which the work will be judged before hardware installation can commence.
  2. The hardware distributor shall be present, along with the factory representative for locksets, exit devices, and surface closers to offer assistance in proper application of the products in order to comply with the factory warranty requirements.
- C. Install all hardware in strict accordance with the manufacturers' templates, installation instructions, and manufacturers' approved fasteners.

- D. The Contractor, upon completion of the construction phase, shall void out the construction master key system per the manufacturer's recommended procedure. This transition from construction to the permanent keys is to be coordinated by the Contractor with MCPS.
- E. Prior to installing the key cabinet the Contractor shall verify that the proper lockset is installed at each opening by testing the locksets using the permanent key from the key cabinet, tagged for the respective opening.
- F. The Contractor shall adjust and check the installation of hardware prior to acceptance by the Owner and/or Architect. All door hardware shall be in perfect working order at the completion of the building.
- G. All door closers are to be adjusted properly to control the closing speed in accordance with accessibility requirements, reference NFPA 101, 2009, 7.2.1.15.7(6). It shall be the installer's responsibility to properly adjust all door closers at the time of installation. All closing speed valves shall be adjusted to provide a smooth and continuous closing action. The delayed action feature or back check valve are to be adjusted so as to permit correct delayed action cycle or hydraulic back check cushioning of the door in the opening position. Adjustable spring power is to be adjusted in exact accordance per the spring power adjustment chart illustrated in the closer installation instructions.
- H. Installation of all other hardware including locksets, exit devices, push-pulls, overhead stops and holders shall be carefully coordinated with the hardware schedule and the manufacturer's instruction sheets.
- I. The Contractor shall turn over to the Owner any tools supplied with the hardware to adjust or maintain the hardware.
- J. Provide the Owner at substantial completion letters from the manufacture of locks, exit devices, and closers that the installation is in accordance with manufacturer's requirements, 2.8, 2.9, and 2.10.
- K. Fire-Rated Assemblies: Upon completion of the installation, all fire door assemblies shall be tested to confirm proper operation and that it meets all criteria of a fire door assembly as per NFPA 80 2007 Edition. The inspection of the fire doors that are swinging doors with builders hardware shall be performed by individuals with knowledge and understanding of the operation components of the type of door being subjected to testing. A written record shall be maintained and given to the owner to be made available to the Authority Having Jurisdiction (AHJ). This report shall list the location of all fire door assemblies, including door number and hardware set. The contractor shall correct all deficiencies in order to be in compliance with the code prior to acceptance by MCPS.

### 3.2 REFERENCE GUIDE

- A. The Contractor shall obtain a copy of ANSI/DHI A115.1G, "Installation Guide for Doors and Hardware." It is the intent of this document to be used as a reference guide in the proper handling, storage and installation of finish hardware and doors and frames. This document can be obtained through the Door and Hardware Institute, Chantilly, VA. 703-222-2010, [www.DHI.org](http://www.DHI.org).

### 3.3 HARDWARE SET SCHEDULE

- A. The following hardware set schedule is to be used in conjunction with the architectural drawings as a guide for furnishing the finish hardware.
  - 1. The hardware supplier shall coordinate the hardware sets with door types, sizes and details to verify the function of each item, reference 1.7.

B. The hardware schedule submission shall include, in each set, the door operation and electrical contractor notes as stated in the specification set.

3.4 HARDWARE SETS

HARDWARE SET #1

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
1 EA.	EXIT DEVICE XPCD98NL-OP	626
1 EA.	EXIT DEVICE XPCD98EO	626
2 EA.	CYLINDERS 20-001	626
1 EA.	PULL 1097HA-FC-RC-SP	US32D
1 EA.	PULL 1097HA-NC-RC-SP	US32D
1 EA.	CYLINDER 1E72	626
1 EA.	REM. MULLION KR4954 X 154 STAB	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111H-CUSH-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM

PAIR OF DOORS

- EXTERIOR FROM MAIN ENTRANCE VESTIBULE
- EXTERIOR FROM CORRIDOR
- EXTERIOR FROM LOBBY

HARDWARE SET #1A

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	CONTINUOUS HINGE 780-224HD-EPT *	ALUM
1 EA.	ELECTRIC EXIT DEVICE SD-EL-XP98NL-OP *	626
1 EA.	EXIT DEVICE XPCD98EO	626
1 EA.	POWER TRANSFER EPT-2 *	SP28
1 EA.	POWER SUPPLY PS873BK-2-FA *	-----
1 EA.	STATION CONSOLE SLP4A	US32D
2 EA.	CYLINDERS 20-001	626
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
1 EA.	WALL ACTUATOR 59-HSS * (EXT)	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	626
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1097HA-FC-RC-SP	US32D
1 EA.	PULL 1097HA-NC-RC-SP	US32D
1 EA.	CYLINDER 1E72	626
1 EA.	REM. MULLION KR4954 X 154 STAB	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – NORMAL MODE, DOOR IS LOCKED AND

OPERATOR IS OFF. WHEN EXIT DEVICE IS DOGGED OPEN, OPERATOR IS TURNED ON BY ON/OFF KEY SWITCH. EXIT DEVICE IS ELECTRONICALLY CONTROLLED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12, 2.13, 2.14 AND 2.15.

NOTE: PROVIDE BOLLARD POST WITH SWITCH ASSEMBLY WHERE WALL OR JAMB MOUNTED ACTUATOR CANNOT BE USED. REFER TO 2.18.

PAIR OF DOORS

- EXTERIOR FROM MAIN ENTRANCE VESTIBULE – HANDICAPPED ENTRANCE

HARDWARE SET #1B

1 EA.	CONTINUOUS HINGE 780-224HD-EPT *	ALUM
1 EA.	ELECTRIC EXIT DEVICE SD-EL-XP98NL-OP *	626
1 EA.	POWER TRANSFER EPT-2 *	SP28
1 EA.	POWER SUPPLY PS873BK-2-FA *	-----
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1097HA-FC-RC-SP	US32D
1 EA.	CYLINDER 1E72	626
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 8" X 1 1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOOR – DOOR SHALL BE LOCKED OR UNLOCKED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

REFER TO SET 1A FOR STATION CONSOLE.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12.

SINGLE DOOR

- EXTERIOR FROM MAIN ENTRANCE VESTIBULE
- EXTERIOR FROM LOBBY

HARDWARE SET #2

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
2 EA.	EXIT DEVICES XP98EO	626
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
1 EA.	REM. MULLION KR4954 X 154 STAB	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111H-CUSH-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM

PAIR OF DOORS

- EXTERIOR FROM CORRIDOR
- EXTERIOR FROM DINING OR CAFETERIA
- EXTERIOR FROM STAIRS
- COURTYARD FROM CORRIDOR
- EXTERIOR FROM MEDIA ROOM

HARDWARE SET #3

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICE XPCD98NL-OP	626
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1096HA-FC-RC-SP	US32D
1 EA.	CYLINDER 1E72	626
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 8" X 1 1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	WEATHERSTRIPPING 155S	ALUM

SINGLE DOOR

- EXTERIOR FROM MAIN ENTRANCE
- EXTERIOR FROM VESTIBULE
- EXTERIOR FROM CORRIDOR

HARDWARE SET #4

1 EA.	CONTINUOUS HINGE 780-224HD-EPT *	ALUM
1 EA.	ELECTRIC EXIT DEVICE SD-EL-XP98NL-OP *	626
1 EA.	POWER TRANSFER EPT-2 *	SP28
1 EA.	POWER SUPPLY PS873BK-FA-2 *	-----
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1097HA-FC-RC-SP	US32D
1 EA.	CYLINDER 1E72	626
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
2 EA.	WALL ACTUATORS (EXT.) 59-HSS *	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP*	626
1 EA.	KICKPLATE 8" X 1 1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOOR – NORMAL MODE, DOOR IS LOCKED AND OPERATOR IS OFF. WHEN EXIT DEVICE IS DOGGED OPEN, OPERATOR IS TURNED ON BY ON/OFF KEY SWITCH. EXIT DEVICE IS ELECTRONICALLY CONTROLLED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

REFER TO SET 1A FOR STATION CONSOLE.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12, 2.13, 2.14 AND 2.15.

NOTE: PROVIDE BOLLARD POST WITH SWITCH ASSEMBLY WHERE WALL OR JAMB MOUNTED ACTUATOR CANNOT BE USED. REFER TO 2.18.

SINGLE DOOR

- EXTERIOR FROM MAIN ENTRANCE VESTIBULE – HANDICAPPED ENTRANCE

#### HARDWARE SET #5

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICE XPCD98EO	626
2 EA.	CYLINDERS 20-001	626
1 EA.	PULL 1096HA-NC-RC-SP	US32D
1 EA.	POWER DOOR OPERATOR 4640*	ALUM
1 EA.	WALL ACTUATOR 59-HSS* (EXT)	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP*	626
1 EA.	STOP, AS REQUIRED	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	GASKETING 155S	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – NORMAL MODE, DOOR IS LOCKED AND OPERATOR IS OFF. WHEN EXIT DEVICE IS DOGGED OPEN, OPERATOR IS TURNED ON BY ON/OFF KEY SWITCH. FREE EGRESS AT ALL TIMES.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.13, 2.14, & 2.15.

NOTE: PROVIDE BOLLARD POST WITH SWITCH ASSEMBLY WHERE WALL OR JAMB MOUNTED ACTUATOR CANNOT BE USED. REFER TO 2.18.

#### SINGLE DOOR

- EXTERIOR – HANDICAPPED ENTRANCE

#### HARDWARE SET #6

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	CONTINUOUS HINGE 780-224HD-EPT *	ALUM
1 EA.	ELECTRIC EXIT DEVICE SD-EL-XP98NL-OP *	626
1 EA.	EXIT DEVICE XPCD98EO	626
2 EA.	CYLINDERS 20-001	626
1 EA.	POWER TRANSFER EPT-2 *	SP28
1 EA.	POWER SUPPLY PS873BK-2-FA *	-----
1 EA.	PULL 1097HA-FC-RC-SP	US32D
1 EA.	PULL 1097HA-NC-RC-SP	US32D
1 EA.	CYLINDER 1E72	626
1 EA.	REM. MULLION KR4954 X 154 STAB	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111H-CUSH-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – NORMAL MODE, DOOR IS LOCKED. EXIT DEVICE IS ELECTRONICALLY CONTROLLED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

REFER TO SET 1A FOR STATION CONSOLE.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12.

PAIR OF DOORS

- EXTERIOR FROM MAIN ENTRANCE VESTIBULE

HARDWARE SET #7

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
2 EA.	EXIT DEVICES XPCD98EO	626
3 EA.	CYLINDERS 20-001	626
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
2 EA.	WALL ACTUATORS 59-HSS*	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	626
1 EA.	CYLINDER 20-001	626
1 EA.	CLOSER 4111-CUSH-DEL-4110-30	ALUM
1 EA.	REM. MULLION KR4954	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	STOPS, AS REQUIRED	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 SET	WEATHERSTRIPPING 155S	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – NORMAL MODE, DOOR IS LOCKED AND OPERATOR IS OFF. WHEN EXIT DEVICE IS DOGGED OPEN, OPERATOR IS TURNED ON BY ON/OFF KEY SWITCH. FREE EGRESS AT ALL TIMES.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.13, 2.14, & 2.15.

NOTE: PROVIDE BOLLARD POST WITH SWITCH ASSEMBLY WHERE WALL OR JAMB MOUNTED ACTUATOR CANNOT BE USED. REFER TO 2.18.

PAIR OF DOORS

- EXTERIOR – HANDICAPPED ENTRANCE

HARDWARE SET #8

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
2 EA.	EXIT DEVICES CD98EO	626
2 EA.	CYLINDERS 20-001	626
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
1 EA.	REM. MULLION KR4954	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111H-CUSH-DEL-4110-30	ALUM
2 EA.	STOPS, AS REQUIRED	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- MAIN VESTIBULE FROM CORRIDOR

HARDWARE SET #9

1 EA.	ELEC CONTINUOUS HINGE 780-224HD-EPT *	ALUM
1 EA.	CONTINUOUS HINGE 780-224HD	ALUM

1 EA.	EXIT DEVICE CD98EO	626
1 EA.	ELECTRIC EXIT DEVICE SD-EL-98EO	626
1 EA.	POWER TRANSFER EPT-2	SP28
1 EA.	POWER SUPPLY PS873BK-2-FA	----
2 EA.	CYLINDERS 20-001	626
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
1 EA.	REM. MULLION KR4954	SP28
1 EA.	CYLINDER 20-001	626
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
1 EA.	WALL ACTUATOR 619-HSSV * (VEST)	US32D
1 EA.	WALL ACTUATOR 59-HSS * (CORR)	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	626
1 EA.	CYLINDER 20-001	626
1 EA.	CLOSER 4111-H-CUSH-DEL-4110-30	ALUM
2 EA.	STOPS, AS REQUIRED	626
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – NORMAL MODE, DOOR IS LOCKED AND OPERATOR IS OFF. WHEN EXIT DEVICE IS DOGGED OPEN, OPERATOR IS TURNED ON BY ON/OFF KEY SWITCH. EXIT DEVICE IS ELECTRONICALLY CONTROLLED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

REFER TO SET 1A FOR STATION CONSOLE.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12, 2.13, 2.14 AND 2.15.

NOTE: PROVIDE BOLLARD POST WITH SWITCH ASSEMBLY WHERE WALL OR JAMB MOUNTED ACTUATOR CANNOT BE USED. REFER TO 2.18.

#### PAIR OF DOORS

- MAIN VESTIBULE FROM CORRIDOR - HANDICAPPED ENTRANCE

#### HARDWARE SET #10

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICE CD98EO	626
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1096HA-NC-RC-SP	US32D
1 EA.	CLOSER 4111-H-CUSH-DEL-4110-30	ALUM
1 EA.	STOP, AS REQUIRED	626
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

#### SINGLE DOOR

- MAIN VESTIBULE FROM CORRIDOR

#### HARDWARE SET #11

1 EA.	CONTINUOUS HINGE 780-224HD-EPT	ALUM
1 EA.	ELECTRIC EXIT DEVICE SD-EL-98EO	626
1 EA.	POWER TRANSFER EPT-2	SP28
1 EA.	POWER SUPPLY PS873BK-2-FA	----
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1096HA-NC-RC-SP	US32D

1 EA.	POWER DOOR OPERATOR 4640*	ALUM
1 EA.	WALL ACTUATOR 59-HSS* (CORR)	US32D
1 EA.	WALL ACTUATOR 619-HSSV * (VEST)	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP*	626
1 EA.	CYLINDER 20-001	626
1 EA.	STOP, AS REQUIRED	626
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – NORMAL MODE, DOOR IS LOCKED AND OPERATOR IS OFF. WHEN EXIT DEVICE IS DOGGED OPEN, OPERATOR IS TURNED ON BY ON/OFF KEY SWITCH. EXIT DEVICE IS ELECTRONICALLY CONTROLLED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

REFER TO SET 1A FOR STATION CONSOLE.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12, 2.13, 2.14 AND 2.15.

SINGLE DOOR

- MAIN VESTIBULE FROM CORRIDOR- HANDICAPPED ENTRANCE

HARDWARE SET #12

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
2 EA.	EXIT DEVICES XPCD98EO	626
2 EA.	CYLINDERS 20-001	626
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
1 EA.	REM. MULLION KR4954 X 154 STAB	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111H-CUSH-4110-30	ALUM
2 EA.	KICKPLATE 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM

PAIR OF DOORS

- EXTERIOR FROM VESTIBULE
- EXTERIOR FROM GYM
- EXTERIOR FROM AUXILIARY GYM

HARDWARE SET #13

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICES XPCD98EO	626
1 EA.	CYLINDER 20-001	626
1 EA.	PULLS 1096HA-NC-RC-SP	US32D
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR FROM MAIN ENTRANCE
- EXTERIOR FROM GYM
- EXTERIOR FROM VESTIBULE
- EXTERIOR FROM CORRIDOR
- EXTERIOR FROM CLASSROOM
- EXTERIOR FROM LAB
- EXTERIOR FROM STAIRS

HARDWARE SET #14

2 EA.	CONTINUOUS HINGES 780 – 224HD	ALUM
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D
1 EA.	OVERHEAD HOLDER 90H	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	ASTRAGAL A605A	ALUM

PAIR OF DOORS

- EXTERIOR FROM PROCESSING LAB
- EXTERIOR FROM OUTDOOR STORAGE
- EXTERIOR FROM STORAGE BUILDING

HARDWARE SET #15

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
2 EA.	DUMMY PUSH BARS 350	US32D
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
2 EA.	WALL ACTUATORS 619-HSSV	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	US32D
1 EA.	CYLINDER 20-001	626
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
2 EA.	STOPS, AS REQUIRED	626
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.13, 2.14, & 2.15.

PAIR OF DOORS

- VESTIBULE FROM LOBBY OR CORRIDOR - HANDICAPPED ENTRANCE

HARDWARE SET #16

2 EA.	CONTINUOUS HINGES 780-224-HD	ALUM
2 EA.	EXIT DEVICES XP98L X 996L-17	US32D
2 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR4954 X 154 STAB.	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4010-DEL	ALUM
2 EA.	OVERHEAD STOPS 90S	US32D
2 EA.	ELECTRO-MAGNETIC LOCK 280+ X MBS *	628
1 EA.	POWER SUPPLY PS873BK-2-FA *	-----

1 EA.	KEY SWITCH 653-14 X L2 X HDP *	US32D
1 EA.	CYLINDER 20-001	626
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	RAIN DRIP STRIP 16A X LENGTH REQ'D	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – ALL DOORS WILL BE LOCKED OR UNLOCKED BY A KEY SWITCH AT THE DOOR OPENING. DOORS WILL BE UNLOCKED TO HAVE FREE ACCESS AND EGRESS DURING NORMAL SCHOOL HOURS. AFTER HOURS, DOORS ARE LOCKED WITH ELECTRONIC MAGNETIC LOCKS WIRED IN CONNECTION WITH THE FIRE ALARM SYSTEM TO RELEASE UPON ACTIVATION OF FIRE ALARM.

\* ELECTRIC CONTRACTOR TO REFERENCE PARAGRAPHS 2.12, 2.13, & 2.17.

PAIR OF DOORS

- EXTERIOR COURTYARD/PLAY AREA TO CORRIDOR

HARDWARE SET #17

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICE XP9875L X 996L-17	US32D
1 EA.	CYLINDER 20-001	626
1 EA.	CLOSER 4010-DEL	ALUM
1 EA.	OVERHEAD STOP 90S	US32D
1 EA.	ELECTRO-MAGNETIC LOCK 280+ X MBS *	628
1 EA.	POWER SUPPLY PS873BK-2-FA *	-----
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	US32D
1 EA.	CYLINDER 20-001	626
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	DOOR SWEEP C627A	ALUM
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	RAIN DRIP STRIP 16A X LENGTH REQ'D	ALUM
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOORS – ALL DOORS WILL BE LOCKED OR UNLOCKED BY A KEY SWITCH AT THE DOOR OPENING. DOORS WILL BE UNLOCKED TO HAVE FREE ACCESS AND EGRESS DURING NORMAL SCHOOL HOURS. AFTER HOURS, DOORS ARE LOCKED WITH ELECTRONIC MAGNETIC LOCKS WIRED IN CONNECTION WITH THE FIRE ALARM SYSTEM TO RELEASE UPON ACTIVATION OF FIRE ALARM.

\* ELECTRIC CONTRACTOR TO REFERENCE PARAGRAPHS 2.12, 2.13, & 2.17.

SINGLE DOOR

- EXTERIOR COURTYARD/PLAY AREA TO CORRIDOR

HARDWARE SET #18

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	DEADLOCK L9464 – MTG @ 48" HT	626
1 EA.	PUSH BAR 44 X LENGTH REQ'D X T.B.	US32D
1 EA.	PULL 1096HA-NC-RC-SP X T.B.	US32D

1 EA.	CLOSER 4010 X DEL	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	RAIN DRIP STRIP 16A X LENGTH REQ'D	ALUM

SINGLE DOOR

- EXTERIOR COURTYARD TO CORRIDOR (SECONDARY EXIT)

HARDWARE SET # 19

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
1 EA.	DEADLOCK L9464 – MTG @ 48" HT	626
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D
2 EA.	PUSH BARS 44 X LENGTH REQ'D	US32D
2 EA.	PULLS 1097HA-NC-RC-SP X T.B.	US32D
2 EA.	CLOSERS 4010 X DEL	ALUM
1 EA.	KICKPLATE 8" X 1" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	WEATHERSTRIPPING 155S	ALUM
1 EA.	RAIN DRIP STRIP 16A X LENGTH REQ'D	ALUM

PAIRS OF DOORS

- EXTERIOR COURTYARD TO CORRIDOR (SECONDARY EXIT)

HARDWARE SET #20

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EDGE GUARDS EG308	US32D
1 EA.	LOCKSET L9480 17B	630
1 EA.	PROTECTOR BAR R101LPB	US32D
1 EA.	CLOSER 4010	ALUM
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D
2 EA.	FLOOR DOOR HOLDERS FS496	US26D
2 EA.	KICKPLATES 8" X 1-1/2" LDW (PULL SIDE)	US32D
2 EA.	ARMOR PLATES 34" X 1" LDW (PUSH SIDE)	US32D
2 EA.	VIEWERS 698B	ALUM
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 EA.	GASKETING 155S	ALUM
1 SET	ASTRAGALS OV633A	ALUM

PAIR OF DOORS

- EXTERIOR TO RECEIVING

HARDWARE SET #21

6 EA.	HINGES BB1199 – 5 X 4.5	US26D
1 EA.	LOCKSET 45H7TD14	630
1 EA.	CLOSER 4011	ALUM
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D

2 EA.	FLOOR DOOR HOLDERS FS496	US26D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	ASTRAGAL A605A	ALUM

PAIR OF DOORS

- EXTERIOR TO MECH. ROOM

HARDWARE SET #22

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICE 98L-NL-17	626
1 EA.	CYLINDER 1E72	626
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR FROM MAIN ELECTRICAL ROOM
- EXTERIOR FROM MAIN MECHANICAL ROOM

HARDWARE SET #23

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	LOCKSET 45H7T14H	630
1 EA.	CLOSER 4111H-CUSH-SRI-4110-30	ALUM
1 EA.	FLOOR STOP FS438	US26D
1 EA.	KICKPLATE 16" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR TO TRASH ROOM

HARDWARE SET #24

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
1 EA.	EXIT DEVICE XP98L-NL-17	626
1 EA.	EXIT DEVICE XP98EO	626
1 EA.	REM. MULLION KR4954 X 154 STAB.	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 1E74	626
1 EA.	CYLINDER 1E72	626
2 EA.	CLOSERS 4111H-CUSH-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM

PAIR OF DOORS

- EXTERIOR FROM MAIN ELECTRICAL ROOM
- EXTERIOR FROM MAIN MECHANICAL ROOM

HARDWARE SET #25

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	EXIT DEVICE XPCD98NL-OP	US32D
1 EA.	CYLINDER 20-001	626
1 EA.	PULL 1096HA-FC-RC-SP	US32D
1 EA.	CYLINDER 1E-72	626
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR FROM OUTDOOR PLAY AREA

HARDWARE SET #26

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
1 EA.	LOCKSET 45H7F14H	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D
1 EA.	OVERHEAD STOP 90H	US32D
2 EA.	ARMOR PLATES 34" X 1" LDW	US32D
2 EA.	VIEWERS 698B	US26D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	ASTRAGAL A605A	ALUM

PAIR OF DOORS

- EXTERIOR FROM VESTIBULE FOOD PREP.

HARDWARE SET #27

3 EA.	HINGES BB1191 – 4.5 X 4.5	US32D
1 EA.	LOCKSET 45H7TD14H	630
1 EA.	OVERHEAD HOLDER 90H	630
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- EXTERIOR TO COOLING TOWER

HARDWARE SET #28

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	LOCKSET 45H7TA14H	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	ARMOR PLATE 34" X 1-1/2" LDW	US32D
1 EA.	VIEWER 698B	US26D

1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 EA.	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR FROM KITCHEN

HARDWARE SET #29

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	LOCKSET L9480-17B	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 16" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS /LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR - OUTDOOR STORAGE

HARDWARE SET #30

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	LOCKSET 45H7TD14H	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
1 EA.	DOOR SWEEP C627A	ALUM
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- EXTERIOR FROM ELECTRICAL ROOM
- EXTERIOR FROM MECHANICAL ROOM

HARDWARE SET #31

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
1 EA.	LOCKSET 45H7TD14H	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D
1 EA.	OVERHEAD HOLDER 90H	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A	ALUM
1 SET	GASKETING 155S	ALUM
1 EA.	ASTRAGAL A605A	ALUM

PAIR OF DOORS

- EXTERIOR FROM ELECTRICAL ROOM
- EXTERIOR FROM MECHANICAL ROOM

HARDWARE SET #32

2 EA.	CONTINUOUS HINGES 780-224HD	ALUM
2 EA.	DUMMY PUSH BARS 350	US32D
2 EA.	PULLS 1097HA-NC-RC-SP	US32D
2 EA.	CLOSERS 4111H-CUSH-4110-30	ALUM
2 EA.	FLOOR STOPS FS441	626
2 EA.	KICKPLATE 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- VESTIBULE FROM LOBBY OR CORRIDOR

HARDWARE SET #33

3 EA.	HINGES BB1279 – 4.5 X 4.5 X NRP	US26D
1 EA.	CLASSROOM SECURITY LOCKSET L9457P-17B	630
1 EA.	CLOSER 4111-DEL	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR FROM CLASSROOM
- CORRIDOR FROM SCIENCE
- CORRIDOR FROM DEVEL. READING
- CORRIDOR FROM SPEECH/THERAPY
- CORRIDOR FROM ART
- CORRIDOR FROM COMPUTER LAB
- CORRIDOR FROM HIGH-TECH LAB
- CORRIDOR FROM SPECIAL EDUCATION
- CORRIDOR FROM ESOL

HARDWARE SET #34

6 EA.	HINGES BB1279 – 4.5 X 4.5 X NRP	US26D
1 EA.	CLASSROOM SECURITY LOCKSET L9457-17B	630
1 PR.	CONSTANT LATCHING FLUSH BOLTS FB61P	US32D
1 EA.	DUSTPROOF STRIKE DP2	US26D
1 EA.	COORDINATOR COR X FL	US28
2 EA.	CLOSERS 4010 - DEL	ALUM
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	ADJ MORTISE DR BOTTOMS AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR FROM CLASSROOM
- CORRIDOR FROM COMPUTER LAB

HARDWARE SET #35

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET 45H7D14H	630
1 EA.	ELECTRIC STRIKE 6210 x FSE	US32D
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
2 EA.	WALL ACTUATORS 59-HSS *	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	626

1 EA.	CYLINDER 20-001	626
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY
1 EA.	WIRING DIAGRAM	-----

NOTE: OPERATION OF DOOR – DOOR SHALL BE LOCKED OR UNLOCKED BY STATION CONSOLE LOCATED IN ADMINISTRATION OFFICE AS DIRECTED BY MCPS.

REFER TO SET 1A FOR STATION CONSOLE.

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.13, 2.14, 2.15 AND 2.19.

SINGLE DOOR

- VESTIBULE TO ADMINISTRATION/GENERAL OFFICE

HARDWARE SET #36

1 EA.	CONTINUOUS HINGE 780-224HD	ALUM
1 EA.	DUMMY PUSH BAR 350	US32D
1 EA.	PULL 1097HA-NC-RC-SP	US32D
1 EA.	POWER DOOR OPERATOR 4640 *	ALUM
1 EA.	WALL ACTUATOR 619-HSSV * (VEST)	US32D
1 EA.	WALL ACTUATOR 59-HSS * (CORR)	US32D
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	626
1 EA.	CYLINDER 20-001	626
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY
1 EA.	WIRING DIAGRAM	-----

\* ELECTRICAL CONTRACTOR TO REFERENCE PARAGRAPHS 2.13, 2.14, & 2.15.

SINGLE DOOR

- VESTIBULE FROM LOBBY OR CORRIDOR - HANDICAPPED ENTRANCE

HARDWARE SET #37

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EDGE GUARDS EG308	US32D
2 EA.	EXIT DEVICES 9447-F-EO-LBR	626
2 EA.	CLOSERS 4110	ALUM
2 EA.	KICKPLATES 8" X 1-1/2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

NOTE: FIRE LABEL FOR DOOR TO BE LOCATED ON TOP RAIL AND FOR FRAME ON HEAD JAMB.

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CROSS CORRIDOR DOUBLE EGRESS

HARDWARE SET #38

2 EA.	CONTINUOUS HINGE FM300	US32D
2 EA.	DOOR EDGE GUARDS EG380	US32D

2 EA.	EXIT DEVICES 98L-F-17	626
2 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4010	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR TO CORRIDOR (UL)

HARDWARE SET #39

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EXIT DEVICES 98L-F-17-BE	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- LOBBY FROM CORRIDOR (U.L.)

HARDWARE SET #40

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	CLOSER 4011-DEL	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	WALL STOP WS401CCV	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CORRIDOR TO CONFERENCE
- CORRIDOR TO RESOURCE
- CORRIDOR TO WORK ROOM
- CORRIDOR TO COPY/WORK ROOM
- CORRIDOR TO EDUC. RESEARCH

HARDWARE SET #41

3 EA.	HINGES BB1279 – 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	OVERHEAD STOP 450S	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CLASSROOM FROM CLOSET
- SPEC. EDUC. CLASSROOM FROM CLOSET
- BUILDING SERVICES FROM CLOSET

- HALL FROM CLOSET (GEN. OFFICE AREA)
- WAITING FROM CLOSET (GEN. OFFICE AREA)

HARDWARE SET #42

3 EA.	HINGES BB1279 – 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	WALL STOP WS401CCV	US32D
3 EA.	SILENCERS SR64	GRAY

NOTE: PROVIDE OVERHEAD STOP FOR DOORS WHERE FLOOR OR WALL STOPS CANNOT BE USED.

SINGLE DOOR

- CLASSROOM FROM CLOSET
- SPEC. EDUC. CLASSROOM FROM CLOSET
- BUILDING SERVICES FROM CLOSET
- LAB TO AUDIO ROOM
- HALL FROM CLOSET (GEN. OFFICE AREA)
- WAITING FROM CLOSET (GEN. OFFICE AREA)
- STAFF ROOM TO COPY/WORK ROOM

HARDWARE SET #43

3 EA.	HINGES BB1279 – 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4111	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CORRIDOR FROM STAFF ROOM

HARDWARE SET #44

6 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
2 EA.	CLOSERS 4111H-CUSH-DEL-4110-30	ALUM
2 EA.	PUSH PLATES 1807-4RC, 6 X 18	US32D
2 EA.	PULL PLATES 1017-3B-RC X TB	US32D
2 EA.	ARMOR PLATES 34" X 1" LDW	US32D
2 EA.	WALL STOPS WS401CCV	US32D
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- VESTIBULE FROM FOOD PREP.

HARDWARE SET #45

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4011	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D

1 SET GASKETING 105L CNS DB

SINGLE DOOR

- CORRIDOR TO HALL FOOD PREP (U.L.)

HARDWARE SET #46

6 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4011	ALUM
2 EA.	FLUSH BOLTS FB458B	US26D
1 EA.	DUST PROOF STRIKE DP2	US26D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- RECEIVING FROM STORAGE (U.L.)

HARDWARE SET #47

6 EA.	HINGES BB1168 – 4.5 X 4.5 X NRP	US26D
2 EA.	EXIT DEVICES 98L-2-F-17	626
4 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-CUSH-DEL-4110-30	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- LOBBY FROM DINING (U.L.)
- CORRIDOR FROM DINING (U.L.)

HARDWARE SET #48

6 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4010	ALUM
2 EA.	FLUSH BOLTS FB458	US26D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	DOOR STOPS FS441 X M/S	US26D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR TO STORAGE (U.L.)

HARDWARE SET #49

3 EA.	HINGES BB1168 – 4.5 X 4.5 – NRP	US26D
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4111	ALUM

1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- FOOD PREP FROM DRY STORAGE (U.L.)

HARDWARE SET #50

6 EA.	HINGES BB1168 – 4.5 X 4.5 X NRP	US26D
2 EA.	EXIT DEVICES 98L-2-F-17	626
4 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-CUSH-DEL-4110-30	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	ADJ MORTISE DR BOTTOMS AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR FROM GYM (U.L.)
- LOBBY FROM GYM (U.L.)

HARDWARE SET #51

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4011-H	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOORS

- LOBBY TO BUILDING SERVICES (U.L.)
- CORRIDOR TO STAGE RAMP (U.L.)
- CORRIDOR TO FACULTY DINING
- DINING TO FACULTY DINING

HARDWARE SET #52

2 EA.	CONTINUOUS HINGES HG311	US32D
2 EA.	EDGE GUARDS EG308	US32D
2 EA.	EXIT DEVICES 98L-F-17-BE	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB.	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

NOTE: FIRE LABEL FOR DOOR TO BE LOCATED ON TOP RAIL AND FOR FRAME ON HEAD JAMB.

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

PAIR OF DOORS (SET IN WALL POCKETS)

- CORRIDOR TO CORRIDOR (U.L.)

HARDWARE SET #53

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EXIT DEVICES 98L-F-17-BE	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB.	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-DEL	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

PAIR OF DOORS

- CORRIDOR FROM STAIRS (U.L.)
- STAIRS FROM CORRIDORS (U.L.)

HARDWARE SET #54

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EXIT DEVICES 98L-F-17-BE	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB.	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-DEL	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO - MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR FROM STAIRS (U.L.)
- STAIRS FROM CORRIDORS (U.L.)

HARDWARE SET #55

1 EA.	CONTINUOUS HINGES FM300	US32D
1 EA.	EXIT DEVICE 98L-F-17-BE	626
1 EA.	CLOSER 4010- DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

SINGLE DOOR

- STAIRS FROM CORRIDOR (U.L.)

HARDWARE SET #56

1 EA.	CONTINUOUS HINGES FM300	US32D
1 EA.	EXIT DEVICE 98L-F-17-BE	626
1 EA.	CLOSER 4010 - DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

SINGLE DOOR

- STAIRS FROM CORRIDOR (U.L.)

HARDWARE SET #57

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EXIT DEVICES 98L-F-17	626
2 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4010	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR TO STAIR, SECOND FLOOR (UL)

HARDWARE SET #58

1 EA.	CONTINUOUS HINGES FM300	US32D
1 EA.	EXIT DEVICES 98L-F-17	626
1 EA.	CYLINDERS 20-022	626
1 EA.	CLOSER 4010 DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

SINGLE DOOR

- STAIRS FROM CORRIDOR, SECOND FLOOR (UL)

HARDWARE SET #59

1 EA.	CONTINUOUS HINGE FM300	US32D
1 EA.	EXIT DEVICE 98L-F-17	626
1 EA.	CYLINDER 20-022	626
1 EA.	CLOSER 4010-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES

SINGLE DOOR

- STAIRS FROM CORRIDOR, SECOND FLOOR (UL)

HARDWARE SET #60

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	DOOR EDGE GUARDS EG380	US32D
2 EA.	CLOSERS 4111H-CUSH DEL-4110-30	ALUM
2 EA.	PUSH PLATES 1807-4RC, 6 X 18	US32D
2 EA.	PULL PLATES 1017-3B-RC X TB	US32D

2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1-1/2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- CORRIDOR TO CORRIDOR

HARDWARE SET #61

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9080P-17B	630
1 EA.	CLOSER 4010-H	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	ARMOR PLATE 34" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR TO MATERIAL STORAGE
- CORRIDOR TO RECEIVING

HARDWARE SET #62

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	CLOSER 4010-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- PROCESSING LAB TO STUDENT STORAGE (U.L.)
- SPEC. ED. RESOURCE TO CLOSET (U.L.)
- READING ROOM TO STORAGE (U.L.)
- READING WORK ROOM FROM STORAGE (U.L.)
- SCIENCE TO PREP STORAGE (U.L.)
- SPEECH/THERAPY FROM STORAGE (U.L.)
- ART TO STORAGE (U.L.)
- ART FROM KILN ROOM (U.L.)
- LIFE MANAGEMENT TO STORAGE (U.L.)

HARDWARE SET #63

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EXIT DEVICES 9847L-F-BE-17-LBR	626
2 EA.	CLOSERS 4010-DEL	ALUM
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO - MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR FROM STAIRS (U.L.)
- STAIRS FROM CORRIDORS (U.L.)

HARDWARE SET #64

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EXIT DEVICES 9847L-F-17-LBR	626
2 EA.	CYLINDERS 20-022	626
2 EA.	CLOSERS 4010-DEL	ALUM
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO - MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR TO STAIRS, SECOND FLOOR (U.L.)

HARDWARE SET #65

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	DOOR EDGE GUARDS EG380	US32D
2 EA.	EXIT DEVICES 9847L-F-17-LBR	626
2 EA.	CYLINDERS 20-022	626
2 EA.	CLOSERS 4010-DEL	ALUM
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO - MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR TO CORRIDOR (U.L.)

HARDWARE SET #66

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	DOOR EDGE GUARDS EG380	US32D
2 EA.	EXIT DEVICES 9847L-F-BE-17-LBR	626
2 EA.	CLOSERS 4010-DEL	ALUM
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS – 3HJ	DB

REFER TO SECTION 13800 FOR ELECTRO - MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR TO CORRIDOR (U.L.)

HARDWARE SET #67

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4011	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR TO STORAGE (U.L.)
- CORRIDOR TO SCHOOL STORE (U.L.)
- CORRIDOR TO SCIENCE STORAGE (U.L.)

- CORRIDOR TO GENERAL STORAGE (U.L.)
- CORRIDOR TO TEXT STORAGE (U.L.)

HARDWARE SET #68

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET 45H7TD14H	630
1 EA.	CLOSER 4011	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	DOOR SWEEP C607A (MTG ON INSIDE)	ALUM
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR TO LAN ROOM (U.L.)
- MECHANICAL ROOM TO GENERATOR (U.L.)
- MECHANICAL ROOM TO ELECTRICAL ROOM (U.L.)
- MECHANICAL ROOM TO OUTDOOR STORAGE (U.L.)
- CORRIDOR TO MDF ROOM (U.L.)
- CORRIDOR TO TELE. COMM. EQUIPT. ROOM (U.L.)

HARDWARE SET #69

6 EA.	HINGES BB1168 - 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET 45H7TD14H	630
1 EA.	CLOSER 4111	ALUM
1 EA.	OVERHEAD STOP 90S	US32D
2 EA.	FLUSH BOLTS FB458B	US26D
1 EA.	DUST PROOF STRIKE DP2	US26D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	DOOR SWEEPS C607A (MTG ON INSIDE)	ALUM
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR FROM MECHANICAL (U.L.)
- CORRIDOR FROM ELECTRICAL (U.L.)

HARDWARE SET #70

6 EA.	HINGES BB1168 - 4.5 X 4.5 - NRP	US26D
1 EA.	EXIT DEVICE 98L-NL-F-17	626
1 EA.	EXIT DEVICE 98EO-F	626
1 EA.	REM. MULLION KR9954F X 499F X 154 STAB	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 1E74	626
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-CUSH-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	DOOR SWEEPS C607A (MTG INSIDE)	ALUM
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR FROM MECHANICAL (U.L.)
- CORRIDOR FROM ELECTRICAL (U.L.)

#### HARDWARE SET #71

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9080P-17B	630
1 EA.	CLOSER 4010-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	ARMOR PLATE 34" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

#### SINGLE DOOR

- DINING TO CHAIR STORAGE (U.L.)
- CORRIDOR TO RECEIVING (U.L.)

#### HARDWARE SET #72

2 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	SPRING HINGE 1250 – 4.5 X 4.5 (CENTER HINGE)	US26D
1 EA.	PRIVACY SET L9044-17B	630
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	WALL STOP WS401CCV	US32D
1 SET	GASKETING 105L CNS	DB

#### SINGLE DOOR

- WAITING/TREATMENT FROM BOYS TOILET
- WAITING/TREATMENT FROM GIRLS TOILET

#### HARDWARE SET #73

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	WALL DOOR HOLDER WS495	US26D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

#### SINGLE DOOR

- DINING FROM FOOD PREP SERVING

#### HARDWARE SET #74

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

#### SINGLE DOOR

- FOOD PREP TO OFFICE
- COMMON AREA FROM OFFICE

#### HARDWARE SET #75

6 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	CLOSER 4111H-CUSH-4110-30	ALUM
2 EA.	FLUSH BOLTS FB358	US26D

1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- CORRIDOR FROM AUXILIARY GYM
- TECH LAB FROM PROCESSING LAB

HARDWARE SET #76

3 EA.	HINGES BB1168 - 4.5 X 4.5	US26D
1 EA.	PUSH PLATE 1807-4RC, 6 X 18	US32D
1 EA.	PULL PLATE 1017-3B-RC X TB	US32D
1 EA.	CLOSER 4011	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- FOOD PREP TO LOCKERS

HARDWARE SET #77

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	CLOSER 4011-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 EA.	SOUND GASKETS 107SA	ALUM

SINGLE SOUND DOOR

- CORRIDOR FROM INST. MUSIC ROOM
- INST. MUSIC ROOM TO GENERAL STORAGE
- CHORAL MUSIC ROOM TO GENERAL STORAGE (U.L.)
- INST. MUSIC ROOM TO INST. STORAGE (U.L.)
- INST. MUSIC ROOM TO OFFICE (U.L.)
- CHORAL MUSIC ROOM TO OFFICE
- VESTIBULE FROM CONTROL ROOM
- READING ROOM FROM EDITING

HARDWARE SET #78

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9457P-17B	630
1 EA.	CLOSER 4011-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 EA.	SOUND GASKETS 107SA	ALUM

SINGLE SOUND DOOR

- VESTIBULE FROM CONTROL ROOM
- READING ROOM FROM EDITING
- CORRIDOR FROM MUSIC ROOM

HARDWARE SET #79

6 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9457P-17B	630
1 EA.	CLOSER 4011-DEL	ALUM
2 EA.	FLUSH BOLTS FB358	US26D
1 EA.	DUSTPROOF STRIKE DP1	US26D
2 EA.	WALL STOPS WS401CCV	US32D
1 EA.	SOUND GASKETS 107SA	ALUM
2 EA.	ADJ MORTISE DR BOTTOMS AMDB3-3 X SWE	----
1 SET	ASTRAGALS A605A	ALUM

PAIR OF DOORS

- CORRIDOR FROM MUSIC ROOM

HARDWARE SET #80

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9466P-17B	630
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 EA.	SOUND GASKETS 107SA	ALUM

SINGLE DOOR

- OFFICE TO OFFICE
- CLASSROOM TO CLASSROOM

HARDWARE SET #81

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LATCHSET L9010-17B	630
1 EA.	OVERHEAD STOP 450-S	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 EA.	SOUND GASKETS 107SA	ALUM

SINGLE DOOR

- CLASSROOM TO CLASSROOM
- OFFICE TO OFFICE

HARDWARE SET #82

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	DEADLOCK L463P x XB11 - 720	626
1 EA.	CLOSER 4011-DEL	ALUM
1 EA.	PUSH PLATE 1807-4RC, 6 X 18 - CFC	US32D
1 EA.	PULL PLATE 1017-3B-RC X TB - CFC	US32D
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CORRIDOR TO BOYS TOILET
- CORRIDOR TO GIRLS TOILET

- FOOD PREP TO LOCKERS

HARDWARE SET #83

3 EA.	HINGES BB1168 – 4.5 X 4.5	US26D
1 EA.	EXIT DEVICE 98L-17	626
1 EA.	CYLINDER 20-022	626
1 EA.	CLOSER 4111 DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR FROM GIRLS LOCKERS
- CORRIDOR FROM BOYS LOCKERS

HARDWARE SET #84

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P 17B	630
1 EA.	CLOSER 4111 DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CORRIDOR TO OFFICE (GIRLS LOCKER)
- CORRIDOR TO OFFICE (BOYS LOCKER)
- GIRLS LOCKER FROM OFFICE
- BOYS LOCKER FROM OFFICE

HARDWARE SET #85

3 EA.	HINGES BB1279 – 4.5 X 4.5 – NRP	US26D
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4111-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- LOBBY FROM CLOSET (TEXT STORAGE)
- CORRIDOR – IDF ROOM

HARDWARE SET #86

6 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4011-DEL	ALUM
2 EA.	FLUSH BOLTS FB358	US26D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	FLOOR HOLDERS FS496	US26D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- LOBBY FROM GENERAL OFFICE

HARDWARE SET #87

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	WALL STOP WS401CCV	US32D
3 EA.	SILENCERS SR64	GRAY

NOTE: PROVIDE OVERHEAD STOP FOR DOORS WHERE FLOOR OR WALL STOPS CANNOT BE USED.

SINGLE DOOR

- GENERAL OFFICE AREA TO CONFERENCE
- GENERAL OFFICE AREA TO PRINCIPAL
- GENERAL OFFICE AREA TO ASST. PRINCIPAL
- GENERAL OFFICE AREA TO WORKROOM
- GENERAL OFFICE AREA TO COUNSELOR
- GENERAL OFFICE AREA TO WAIT/TREATMENT
- GENERAL OFFICE AREA TO FIN. SEC.
- WAITING/TREATMENT TO OFFICE
- WAITING TO COUNSELOR
- WAITING TO CONFERENCE
- OFFICE FROM CONFERENCE
- CONFERENCE TO RESOURCE
- OFFICE TO WORK ROOM
- READING ROOM TO OFFICE
- LIFE MANAGEMENT LAB TO OFFICE

HARDWARE SET #88

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4011	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CORRIDOR TO GENERAL OFFICE
- CORRIDOR TO WORK ROOM
- CORRIDOR TO WAIT/TREATMENT

HARDWARE SET #89

3 EA.	HINGES BB1279 – 4.5 X 4.5 X NRP	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4111	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- CORRIDOR FROM HALL (GEN OFFICE AREA)

- CORRIDOR FROM WAITING (GEN OFFICE AREA)
- CORRIDOR FROM OFFICE

HARDWARE SET #90

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCK L9486 X L583-375-17B(OCCUPIED INDICATOR)	630
1 EA.	CLOSER 4011	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR TO MEN'S STAFF TOILET
- CORRIDOR TO WOMEN'S STAFF TOILET

HARDWARE SET #91

3 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
1 EA.	EXIT DEVICE 98L-2-17	626
2 EA.	CYLINDERS 20-022	626
1 EA.	CLOSER 4111-CUSH-4110-30	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR FROM MEDIA/RESOURCE ROOM

HARDWARE SET #92

6 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
2 EA.	EXIT DEVICES 98L-2-17	626
4 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR4954 X 154 STAB.	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111 CUSH-4110-30	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	ADJ MORTISE DR BOTTOMS AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR FROM MEDIA/RESOURCE ROOM
- CORRIDOR FROM COMMUNICATIONS ROOM

HARDWARE SET #93

6 EA.	HINGES BB1279 – 45 X 4.5	US26D
1 EA.	DEADLOCK L460P	626
2 EA.	DUMMY LEVERS L0170-17B	626
2 EA.	CATCHES CL21A	626
2 EA.	OVERHEAD STOPS 450S	US32D
2 EA.	FLUSH BOLTS FB358	626

1 EA.	DUST PROOF STRIKE DP2	626
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- HALL FROM CLOSET
- SCHOOL STORE FROM CLOSET

HARDWARE SET #94

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LATCHSET L9010-17B	630
1 EA.	WALL STOP WS401CCV	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- HEALTH TO ISOLATION
- OFFICE TO CLOSET

HARDWARE SET #95

6 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
2 EA.	EXIT DEVICES 98L-2-17	626
4 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR4954 X 154 STAB.	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-CUSH-DEL-4110-30	ALUM
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	ADJ MORTISE DR BOTTOMS AMDB3-3 X SWE	----
1 SET	GASKETING 155S	ALUM
1 SET	ASTRAGALS A605A	ALUM

PAIR OF DOORS

- CORRIDOR FROM AUDITORIUM
- CORRIDOR FROM THEATER

HARDWARE SET #96

3 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
1 EA.	EXIT DEVICE 98L-2-F-17	626
2 EA.	CYLINDERS 20-022	626
1 EA.	CLOSER 4111-CUSH DEL-4110-30	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 SET	GASKETING 155S	ALUM

SINGLE DOOR

- CORRIDOR FROM THEATER/AUDITORIUM (UL)

HARDWARE SET # 97

6 EA.	HINGES BB1168 – 4.5 X 4.5-NRP	US26D
1 EA.	LOCKSET L9480P-17B	630

1 EA.	CLOSER 4011-H	ALUM
1 EA.	OVERHEAD STOP 450S	US32D
2 EA.	FLUSH BOLTS FB358	US26D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- CORRIDOR - CHAIR STORAGE
- CORRIDOR - MATERIAL STORAGE
- LOCKERS – EQUIPMENT ROOM

HARDWARE SET #98

8 EA.	HINGES BB1168 – 4.5 X 4.5 – NRP	US26D
1 EA.	DEADLOCK L463P x XB11 - 720	626
1 EA.	PULL 1820 x CFC	US32D
1 EA.	CLOSER 4111-H-DEL	ALUM
1 EA.	OVERHEAD STOP 450H (IN-ACT DR.)	US32D
1 EA.	BOTTOM FLUSH BOLT FB358B	US26D
1 EA.	TOP FLUSH BOLT FB41T	US32D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 16" X 2" LDW	US32D
2 EA.	EDGE GUARDS EG308	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- GYM FROM STORAGE

HARDWARE SET #99

8 EA.	HINGES BB1168 – 4-1/2 X 4-1/2 – NRP	US26D
2 EA.	EDGE GUARDS EG308	US32D
1 EA.	LOCKSET L9480P-LLL X 17B X L-283-150	630
1 EA.	PULL 1820 x CFC	US32D
1 EA.	CLOSER 4111-CUSH-DEL	ALUM
1 EA.	OVERHEAD STOPS 450S	US32D
1 EA.	BOTTOM FLUSH BOLT FB358B	US26D
1 EA.	TOP FLUSH BOLT FB41T	US32D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	KICKPLATES 16" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- GYM FROM STORAGE (U.L.)

HARDWARE SET #100

4 EA.	HINGES BB1168 – 4-1/2 X 4-1/2 – NRP	US26D
1 EA.	LOCKSET L9480P-LLL X 17B X L-283-150	630
1 EA.	PULL 1820 x CFC	US32D
1 EA.	CLOSER 4111-CUSH	ALUM
1 EA.	KICKPLATE 16" X 1-1/2" LDW	US32D
1 EA.	WALL STOP WS401CCV	US32D

3 EA. SILENCERS SR64 GRAY

SINGLE DOOR

- GYM FROM STORAGE (U.L.)

HARDWARE SET #101

4 EA.	HINGES BB1168 – 4.5 X 4.5 – NRP	US26D
1 EA.	DEADLOCK L463P x XB11 - 720	626
1 EA.	PULL 1820 x CFC	US32D
1 EA.	CLOSER 4111H-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 16" X 1-1/2" LDW	US32D
3 EA.	SILENCERS SR64	GRAY

SINGLE DOOR

- GYM FROM STORAGE

HARDWARE SET #102

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9453P-17B	630
1 EA.	CLOSER 4010	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW (PUSH SIDE)	US32D
1 EA.	KICKPLATE 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR TO JANITOR (U.L.)

HARDWARE SET #103

6 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
2 EA.	FLUSH BOLTS FB358	US26D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	WALL DOOR HOLDERS FS495	US26D
2 EA.	KICKPLATES 8" X 1-1/2" LDW (PUSH SIDE)	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- SERVING TO MULTI-PURPOSE ROOM

HARDWARE SET #104

3 EA.	HINGES BB1279 – 4.5 X 4.5 – NRP	US26D
1 EA.	LOCKSET 45H7TD14H	630
1 EA.	CLOSER P4031-201	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	DOOR BOTTOM C607A (MTG. INSIDE)	ALUM
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR FROM ELEVATOR ROOM
- CORRIDOR FROM MECHANICAL CLOSET

HARDWARE SET #105

3 EA.	HINGES BB1279 – 4.5 X 4.5 – NRP	US26D
1 EA.	EXIT DEVICE 98L-NL-17	626
1 EA.	CYLINDER 1E72	626
1 EA.	CLOSER 4111	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	DOOR BOTTOM C607A (MTG. INSIDE)	ALUM
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR FROM ELEC. ROOM (U.L.)
- CORRIDOR FROM MECHANICAL ROOM (U.L.)

HARDWARE SET #106

3 EA.	HINGES BB1279 – 4.5 X 4.5 X NRP	US26D
1 EA.	LOCKSET L9470P-17B	630
1 EA.	CLOSER 4011-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- MUSIC ROOMS – MUSIC STORAGE (U.L.)
- CLASSROOMS - SHARED STORAGE (U.L.)

HARDWARE SET #107

6 EA.	HINGES BB1168 – 4.5 X 4.5 X NRP	US26D
1 EA.	LOCKSET L9480P-17B	630
2 EA.	CLOSERS 4111 - CUSH	ALUM
1 SET	LATCHING FLUSH BOLTS FB51P	US26D
1 EA.	COORDINATOR COR X MTG BRKTS X FILLER	ALUM
1 EA.	DUST PROOF STRIKE DP2	US26D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR – STORAGE (UL)

HARDWARE SET #108

3 EA.	HINGES BB1191 – 4.5 X 4.5 X NRP	US32D
1 EA.	LOCKSET 45H7AB14H	630
1 EA.	CLOSER 4010	ALUM
1 EA.	STOP, AS REQUIRED	US32D
1 EA.	THRESHOLD 425HD-SIA X MS/LS	ALUM
2 EA.	DOOR SWEEPS C627A (MTG. I/S & O/S)	ALUM
1 SET	WEATHERSTRIPPING 155S	ALUM

SINGLE DOOR

- MECH. PENTHOUSE FROM ROOF

HARDWARE SET #109

6 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
2 EA.	DUMMY TRIM AL170 – SPA	626
2 EA.	CATCHES CL21A	US26D
2 EA.	OVERHEAD STOPS 450S	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- OFFICE AREA/CORRIDOR FROM COAT CLOSET

HARDWARE SET #110

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LATCHSET L9010-17B	630
1 EA.	CLOSER 4111-DEL	ALUM
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- MULTI-PURPOSE ROOM – STAGE AREA
- AUDITORIUM – STAGE AREA

HARDWARE SET #111

4 EA.	HINGES BB1279 - 4.5 X 4.5	US26D
1 EA.	LOCKSET L9070P-17B	630
1 EA.	DUTCH DOOR BOLT 054B	US26D
1 EA.	OVERHEAD HOLDER 450H	630
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
4 EA.	SILENCERS SR64	GRAY

SINGLE DUTCH DOOR

- LOCKER ROOM TO TOWELS

HARDWARE SET #112

3 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9456P 17B	630
1 EA.	WALL STOP WS401CCV	US32D
1 SET	GASKETING 105L CNS	DB
1 EA.	AUTO DOOR BOTTOM 434	ALUM
1 SET	GASKETING 160V	ALUM
1 EA.	THRESHOLD 173A X MS/LS	ALUM

SINGLE DOOR

- DARK ROOM

HARDWARE SET #113

3 EA.	HINGES BB1279 - 4.5 X 4.5 - NRP	US26D
1 EA.	LOCKSET L9480P-17B	630
1 EA.	CLOSER 4111-DEL	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- CORRIDOR FROM STORAGE (U.L.)

HARDWARE SET #114

6 EA.	HINGES BB1168 - 4-1/2 X 4-1/2 - NRP	US26D
1 EA.	LOCKSET L9466P - 17B	630
2 EA.	CLOSERS 4010-H	ALUM
1 SET	FLUSH BOLTS FB458	US26D
1 EA.	DUST PROOF STRIKE DP2	US26D
1 EA.	COORDINATOR COR X FL	US28
2 EA.	FLOOR STOPS FS438	US32D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCER SR64	GRAY

PAIR OF DOORS

- MULTI-PURPOSE - GYM

HARDWARE SET #115

1 EA.	LOCKSET ND53PD STA	626
1 EA.	CLOSER 4110-CUSH-SRI X 4110-30	ALUM

BALANCE OF HARDWARE BY GREENHOUSE MANUFACTURER

SINGLE DOOR

- EXTERIOR FROM GREENHOUSE

HARDWARE SET #116

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EDGE GUARDS EG308	US32D
2 EA.	EXIT DEVICES 9447-F-LBR	626
2 EA.	CLOSERS 4110	ALUM
1 EA.	ELECTRO-MAGNETIC LOCK 70(MTG.PUSH SIDE) *	US28
1 EA.	POWER SUPPLY PS873BK-2-FA *	-----
1 EA.	KEY SWITCH 653-14 X L2 X HDP *	626
1 EA.	CYLINDER 20-001	626
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS - 3HJ	DB

NOTE: FIRE LABEL FOR DOOR TO BE LOCATED ON TOP RAIL AND FOR FRAME ON HEAD JAMB. MCPS TO DIRECT MOUNTING OF MAG LOCK ON DOOR LEAF

\* ELECTRICAL CONTRACTOR TO REFERENCE 2.12, 2.13, AND 2.17.

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES

PAIR OF DOORS

- CROSS CORRIDOR DOUBLE EGRESS

HARDWARE SET #117

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	EDGE GUARDS EG308	US32D
2 EA.	CLOSERS 4010	ALUM
2 EA.	PUSH PLATES 1807-4RC, 6 X 18	US32D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1-1/2" LDW	US32D
2 EA.	DOOR SWEEPS C607A	ALUM
1 SET	GASKETING 105L CNS – 3HJ	DB

PAIR OF DOORS

- CROSS CORRIDOR DOUBLE EGRESS
- (SMOKE PARTITION DOORS)

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES

HARDWARE SET #118

1 EA.	HINGES BB1279 – 4.5 X 4.5 (TOP HINGE)	US26D
2 EA.	SPRING HINGE 1250 – 4.5 X 4.5	US26D
1 EA.	PRIVACY SET L9040-17B	630
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

SINGLE DOOR

- BUILDING SERVICE TO TOILET
- LOCKERS TO TOILET
- GIRLS LOCKER TO TOILET
- BOYS LOCKER TO TOILET

HARDWARE SET #119

2 EA.	CONTINUOUS HINGE FM300	US32D
2 EA.	DOOR EDGE GUARDS EG380	US32D
2 EA.	EXIT DEVICES 98L-17	626
2 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR4954 X 154 STAB	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4010-H	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- CORRIDOR TO CORRIDOR

HARDWARE SET #120

2 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
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1 EA.	ELEC HINGE BB1279 ETW – 4.5 X 4.5 * (CTR HNG)	US26D
1 EA.	LOCKSET L9080PEL-17B *	630
1 EA.	CLOSER 4010	ALUM
1 EA.	WALL STOP WS401CCV	US32D
1 EA.	KICKPLATE 8" X 1-1/2" LDW	US32D
1 EA.	ADJ MORTISE DR BOTTOM AMDB3-3 X SWE	----
1 SET	GASKETING 105L CNS	DB

\* ELECTRICAL CONTRACTOR TO FURNISH 24V TRANSFORMER

SINGLE DOOR

- MEDIA CENTER - LIBRARY

HARDWARE SET #121

6 EA.	HINGES BB1168 – 5 X 4.5 – NRP	US26D
2 EA.	EXIT DEVICES 98L-17	US32D
2 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR4954 X 154 STAB.	SP28
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4111-DEL	ALUM
2 EA.	FLOOR STOPS FS411 X MS/LS	626
2 EA.	KICKPLATES 8" X 2" LDW	US32D
1 SET	GASKETING 105L CNS	DB

PAIR OF DOORS

- CORRIDOR FROM LOCKER ROOM

HARDWARE SET #122

6 EA.	HINGES BB1168 – 5 X 4.5	US26D
2 EA.	PUSH PLATES 1807-4RC, 6 X 18	US32D
2 EA.	PULL PLATES 1017-3B-RC X TB	US32D
2 EA.	CLOSERS 4010	ALUM
2 EA.	FLOOR STOPS FS441 X MS/LS	626
2 EA.	KICKPLATES 8" X 1" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

PAIR OF DOORS

- VESTIBULE FROM LOCKER ROOM

HARDWARE SET #123

6 EA.	HINGES BB1279 – 4.5 X 4.5	US26D
1 EA.	LOCKSET L9480P-17B	626
1 EA.	CLOSER 4010 – H	ALUM
2 EA.	FLUSH BOLTS FB358	US26D
1 EA.	DUSTPROOF STRIKE DP2	US26D
2 EA.	FLOOR STOPS FS438	US26D
2 EA.	KICKPLATES 8" X 1" LDW	US32D
1 SET	GASKETING 105L CNS	DB

NOTE: PROVIDE OVERHEAD STOP WHERE FLOOR OR WALL STOPS CANNOT BE USED.

PAIR OF DOORS

- CORRIDOR TO STORAGE
- CLASSROOM TO STORAGE

HARDWARE SET #124

2 EA.	CONTINUOUS HINGES FM300	US32D
2 EA.	DOOR EDGE GUARDS EG380	US32D
2 EA.	CLOSERS 4111-4110-30	ALUM
2 EA.	PUSH PLATES 1807-4RC, 6 X 18	US32D
2 EA.	PULL PLATES 1017-3B-RC X TB	US32D
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	KICKPLATES 8" X 1-1/2" LDW	US32D
2 EA.	SILENCERS SR64	GRAY

REFER TO SECTION 13800 FOR ELECTRO-MAGNETIC DOOR RELEASES.

PAIR OF DOORS

- CORRIDOR TO CORRIDOR

HARDWARE SET #125

6 EA.	HINGES BB1168 – 4.5 X 4.5 - NRP	US26D
2 EA.	EXIT DEVICES 98L-2-17	626
4 EA.	CYLINDERS 20-022	626
1 EA.	REM. MULLION KR4954 X 154 STAB.	SP28
1 EA.	MULLION SEAL 5100-S	GRAY
1 EA.	CYLINDER 20-001	626
2 EA.	CLOSERS 4010-DEL	ALUM
2 EA.	WALL STOPS WS401CCV	US32D
2 EA.	ADJ MORTISE DR BOTTOMS AMDB3-3 X SWE	----
1 EA.	SOUND GASKETS 107SA	ALUM
1 SET	ASTRAGALS A605A	ALUM

PAIR OF DOORS

- CORRIDOR FROM MUSIC

HARDWARE SET #126

1 EA.	KEY CABINET AWC-450-S	
	OWNER TO DETERMINE LOCATION	

HARDWARE SET #127

5 EA.	CYLINDERS 1E74 X ABC X 626	
5 EA.	CYLINDERS 1CB-150 SERIES PATENTED X ABC X 626	
	OWNERS STOCK	

**END OF SECTION**