

# Addendum No. 05

May 30, 2023



## Campus Security Improvement Phase 1

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**OWNER:** Clovis Unified School District  
1450 Herndon Ave. Clovis, CA. 93611

**PREPARED BY:** PBK Architects, Inc.  
7790 N. Palm Avenue  
Fresno, California 93711

**PBK PROJECT NO.:** S2100500AR  
**DSA FILE NO.:** N/A  
**DSA APPLICATION NO.:** N/A

### NOTICE TO BIDDERS

- A. Receipt of this Addendum shall be acknowledged on the Proposal Form.
- B. This Addendum forms part of the Contract Documents for the above referenced project and shall be incorporated integrally therewith.
- C. Each proposer shall make necessary adjustments and submit their proposal with full knowledge of all modifications, clarifications, and supplemental data included therein. Where provisions of the following supplemental data differ from those of the original Contract Documents, this Addendum shall govern.

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### GENERAL:

**5-01** The bid opening date has been changed. The bid opening date shall be June 6, 2023, at 1:00PM.

### CLARIFICATION:

**5-02** **Sheet A5.0 Administration/ MPR.** Revise as follows: Remove Door Schedule and replace with the attached revised Door Schedule.

**5-03** **Ft. Washington Building 'D' Door D8.** Revise as follows:  
D8 under HW Group No. 08: Add 2-FB458 626 manual flush bolts for replacement  
Hollow metal doors.

**5-04** **Bud Rank Building 'F' Door F6.** Revise as follows: Door number F6 replacing RHRB door leaf only with new door. Frame and LHRB door leaf remain as existing.  
(N) exterior H.M. door shall be 16 g.a.

### SPECIFICATION SECTIONS:

**5-05** Refer to specification section 08 71 00 issued in Addendum No. 4. Omit this specification in its entirety. Replace with section 08 71 00 attached, labeled Addendum No. 5. This revised specification section adds (5) hardware groups to Fort Washington Elementary School. All other specifications in this section remain unchanged.

# Addendum No. 05

May 30, 2023



## Campus Security Improvement Phase 1

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END OF ADDENDUM NO. 5

John Hamilton Smith

A handwritten signature in blue ink, appearing to read 'JHS', written over a horizontal line.

NAME OF ARCHITECT, Architect

DOOR SCHEDULE (X)														
DOOR No.	DOOR TYPE	DOOR SIZE W. x H.	DOOR		FRAME		WALL			CEILING		HARDWARE (SEE SPECS)	REMARKS	DETAIL SHEET D1.1
			EXISTING CONST. (U.N.O.)	EXISTING FINISH (U.N.O.)	EXISTING CONST. (U.N.O.)	EXISTING FINISH (U.N.O.)	EXISTING WALL CONST.	EXISTING EXT. FINISH	EXISTING INT. FINISH	EXISTING EXT. FINISH	EXISTING INT. FINISH			
BUILDING 1 : ADMINISTRATION														
D1	DL	3'-0" x 7'-0"	SF	FF	SF	FF	WC	STU	TK	STU	GYP	9	2	6
D2	SI	3'-0" x 7'-0"	SF	FF	SF	FF	WC	STU	TK	STU	TB GYP	1	2	6
D3	SI	3'-0" x 7'-0"	SF	FF	SF	FF	WC	STU	TK	STU	TB	5	2	8
D4	SI	3'-0" x 7'-0"	SF	FF	SF	FF	WC	STU WIN	TK WIN	STU	TB	2	2	8
D5	DL	3'-0" x 7'-0"	HM	PT	SF	FF	WC	STU	GYP TK	STU	GYP	7	2	8
D6	DL	3'-0" x 7'-0"	HM	PT	SF	FF	WC	STU	GYP TK	STU	GYP	7	2	8
D7	SI	3'-0" x 7'-0"	HM	PT	SF	FF	WC	STU	GYP	STU	GYP	3	2	8
D8	DL	(2) (N) 3'-0" x 7'-0"	(N)HM	(N)PT	(N)HM	(N)PT	WC	STU	GYP	STU	GYP	8	2	8
D9	SI	3'-6" x 7'-0"	HM	PT	HM	PT	WC	STU	FRP	STU	GYP	5	2	8
D10	DL	3'-0" x 7'-0"	HM	PT	HM	PT	WC	STU WIN	STU WIN	STU	GYP	7	2	8

Note for Door D8 only:  
 Provide a threshold,  
 door bottoms and  
 weather stripping.  
 Field verify frame  
 depth  
 (N) exterior H.M. door  
 frame shall be 14 g.a.  
 fully welded, 2" frame  
 width.  
 (N) exterior H.M.  
 door shall be 16 g.a.

**SECTION 08 71 00 - DOOR HARDWARE****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.
- B. Related Sections: The following sections are noted as containing requirements that relate to this Section, but may not be limited to this listing.
  - 1. Division 08: Section - Hollow Metal Doors and Frames.
  - 2. Division 08: Section - Wood Doors.
  - 3. Division 08: Section - Aluminum-Framed Storefronts.
  - 4. Division 28: Section - Electronic Access Control.

**1.3 REFERENCES**

- A. 2019 California Building Code, CCR Title 24, Part 2
- B. BHMA - Builders' Hardware Manufacturers Association
- C. DHI - Door and Hardware Institute
- D. NFPA - National Fire Protection Association.
  - 1. NFPA 80 - Fire Doors and Other Opening Protectives
  - 2. NFPA 105 - Smoke and Draft Control Door Assemblies
- E. UL - Underwriters Laboratories.
  - 1. UL 10C - Fire Tests of Door Assemblies
  - 2. UL 305 - Panic Hardware
- F. WHI - Warnock Hersey Incorporated
- G. SDI - Steel Door Institute

**1.4 SUBMITTALS & SUBSTITUTIONS**

- A. General: Submit in accordance with Conditions of the Contract and Division 01 Specification sections.
- B. Submit product data (catalog cuts) including manufacturers' technical product information for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.

- C. Submit electronic PDF copies of schedule organized vertically into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Include following information:
1. Include a Cover Sheet with:
    - a. Job Name, location, telephone number.
    - b. Architects name, location and telephone number.
    - c. Contractors name, location, telephone number and job number.
    - d. Suppliers name, location, telephone number and job number.
    - e. Hardware consultant's name, location and telephone number.
  2. Job Index information included:
    - a. Numerical door number index including; door number, hardware heading number and page number.
    - b. Complete keying information (referred to DHI hand-book "Keying Systems and Nomenclature"). Provision should be made in the schedule to provide keying information when available; if it is not available at the time the preliminary schedule is submitted.
    - c. Manufacturers' names and abbreviations for all materials.
    - d. Explanation of abbreviations, symbols, and codes used in the schedule.
    - e. Mounting locations for hardware.
    - f. Clarification statements or questions.
    - g. Catalog cuts and manufacturer's technical data and instructions.
  3. Vertical schedule format sample:

Heading Number 1 (Hardware group or set number - HW Group #1)				
(a) 1 Single - Door #101 - Corridor 101 to Exterior			(b) 90°	(c) RH
(d) 3'-0" x 7'-0" x 1-3/4" - Wood Door x Hollow Metal Frame - 20 Minute				
(e) 1.	(f) 3 ea	(g) Hinges - (h) 5BB1 4.5 x 4.5 NRP	(i) 1/2 TMS	(j) 630
2.	1 ea	Lockset - ND80P6D x RHO x RH x 10-025 x JTMS		626
3.	1 ea	Closer - 4040XP x EDA x TBSRT		689
				(k) IVE
				SCH
				LCN

- (a) Single or pair of doors with opening number and location.
- (b) Degree of opening.
- (c) Hand of door(s).
- (d) Door/frame dimensions and material; Label requirements, if any.
- (e) Hardware item line # (Optional).
- (f) Quantity.
- (g) Product description.
- (h) Product part number.
- (i) Fastenings and other pertinent information.
- (j) Hardware finish codes per ANSI/BHMA A156.18.
- (k) Manufacturer abbreviation.

- D. Make substitution requests in accordance with Division 01. Substitution requests must be made prior to bid date. Include product data and indicate benefit to the project. Furnish samples of any proposed substitution.
- E. Wiring Diagrams: Provide product data and wiring and riser diagrams for all electrical products listed in the Hardware Schedule portion of this section.

- F. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.
- G. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- H. Furnish as-built/as-installed schedule with close-out documents, including keying schedule and transcript, wiring/riser diagrams, manufacturers' installation and adjustment and maintenance information.
- I. Fire Door Assembly Testing: Submit a written record of each fire door assembly to the Owner to be made available to the Authority Having Jurisdiction (AHJ) for future building inspections.
- J. LEED Certification Points: Submit information and certifications necessary to achieve maximum points for LEED certification; coordinate and cooperate with Owner and Architect in providing information necessary for required LEED rating.

### **1.5 QUALITY ASSURANCE**

- A. Obtain each type of hardware (latch and lock sets, hinges, closers, exit devices, etc.) from a single manufacturer.
- B. Supplier Qualifications: A recognized architectural door hardware supplier, with warehousing facilities in the project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this project and that employs an experienced architectural hardware consultant (AHC) who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.
  - 1. Responsible for detailing, scheduling and ordering of finish hardware.
  - 2. Meet with Owner to finalize keying requirements and to obtain final instructions in writing.
  - 3. Stock parts for products supplied and are capable of repairing and replacing hardware items found defective within warranty periods.
- C. Hardware Installer: Company specializing in the installation of commercial door hardware with five years documented experience.
- D. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and tested by UL or Warnock Hersey for given type/size opening and degree of label. Provide proper latching hardware, door closers, approved-bearing hinges and seals whether listed in the Hardware Schedule or not.
  - 1. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors' UL labels indicating "Fire Door to be Equipped with Fire Exit Hardware") provide UL label on exit devices indicating "Fire Exit Hardware".
- E. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.
- F. Product packaging to be labelled in compliance with CA Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986.

**1.6 DELIVERY, STORAGE AND HANDLING**

- A. Coordinate delivery of packaged hardware items to the appropriate locations (shop or field) for installation.
- B. Hardware items shall be individually packaged in manufacturers' original containers, complete with proper fasteners. Clearly mark packages on outside to indicate contents and locations in hardware schedule and in work.
- C. Provide locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, etc.
- D. Contractor to inventory door hardware jointly with representatives of hardware supplier and hardware installer until each all are satisfied that count is correct.

**1.7 WARRANTY**

- A. Provide warranties of respective manufacturers' regular terms of sale from day of final acceptance as follows:
  - 1. Locksets: Ten (10) years.
  - 2. Exit devices: Three (3) years.
  - 3. Closers: Thirty (30) years.
  - 4. Electronic: One (1) year.
  - 5. All other hardware: Two (2) years.

**1.8 MAINTENANCE**

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

**1.9 PRE-INSTALLATION CONFERENCE**

- A. Convene a pre-installation conference at least one week prior to beginning work of this section.
- B. Attendance: Architect, Construction Manager, Contractor, Security Contractor, Hardware Supplier, Installer, Key Owner's Personnel, and Project Inspector.
- C. Agenda: Review hardware schedule, products, installation procedures and coordination required with related work. Review Owner's keying standards.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS**

<u>Item</u>	<u>Manufacturer</u>	<u>Acceptable Substitutes</u>
Hinges	Ives	Hager, Stanley, McKinney
Locks, Latches & Cylinders	Schlage	None – District Standard
Exit Devices	Von Duprin	None – District Standard
Closers	LCN	None – District Standard
Push, Pulls & Protection Plates	Ives	Trimco, BBW, DCI
Flush Bolts	Ives	Trimco, BBW, DCI
Coordinators	Ives	Trimco, BBW, DCI

Door Stops	Ives	Trimco, BBW, DCI
Overhead Stops	Glynn-Johnson	Or Approved Equal
Thresholds	Zero	Pemko, National Guard
Seals & Bottoms	Zero	Pemko, National Guard

## 2.2 MATERIALS

- A. Hinges:
1. Provide hinges conforming to ANSI/BHMA A156.1.
  2. Hinges shall be sized in accordance with the following:
    - a. Height:
      - 1) Doors up to 42" wide: 4-1/2 inches.
      - 2) Doors 43" to 48" wide: 5 inches.
    - b. Width: Sufficient to clear frame and trim when door swings 180 degrees.
    - c. Number of Hinges: Provide 3 hinges per leaf to 7'-5" in height. Add one for each additional 2 feet in height.
  3. Exterior out-swinging hinges shall be non-ferrous material and shall have stainless steel hinge pins. All doors to have non-rising pins.
  4. Furnish non-removable pins (NRP) at all exterior out-swing doors and interior key lock doors with reverse bevels.
  5. Provide hinges with electrified options as scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component.
- B. Continuous Hinges:
1. Provide aluminum geared continuous hinges fabricated from 6063-T6 aluminum conforming to ANSI/BHMA A156.26, Grade 1.
  2. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
  3. Provide continuous hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
  4. Provide continuous hinges 1" shorter in length than nominal height of door, unless otherwise noted, with symmetrical hole pattern.
  5. Provide continuous hinges with electrified option, as scheduled, with sufficient number and wire gage to accommodate electric function of specified hardware.
  6. Install continuous hinges with fasteners supplied by manufacturer.
- C. Heavy Duty Cylindrical Locks and Latches: Schlage "ND" Series as scheduled with "Rhodes" lever design.
1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3 hour fire doors.
  2. Provide cylindrical locksets exceeding the ANSI/BHMA A156.2 Grade 1 performance standards for strength, security, and durability in the categories below:
    - a. Abusive locked lever torque – minimum 3,100 inch-pounds without gaining access.
    - b. Offset lever pull – minimum 1,600 foot pounds without gaining access.
    - c. Vertical lever impact – minimum 100 impacts without gaining access.
    - d. Cycle Test – tested to minimum 16 million cycles with no visible lever sag; without the use of performance aids such as set screws or spacers.
  3. Cylinders: Refer to "KEYING" article, herein.
  4. Provide locks with standard 2-3/4" backset, unless noted otherwise, with 1/2" latch throw. Provide proper latch throw for UL listing at pairs.
  5. Provide locksets with separate solid steel anti-rotation thru-bolts, and no exposed screws.



6. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
  7. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
  8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
  9. Provide levers with vandal resistant technology as scheduled for use at abusive applications.
  10. Provide wired electrified options as scheduled in the hardware sets.
    - a. 12 or 24 volt DC auto-detecting operating capability.
    - b. Selectable EL (fail safe) or EU (fail secure) operating mode via switch on chassis.
    - c. 0.23A (230mA) maximum current draw.
    - d. 0.01A (10mA) holding current.
    - e. Modular request to exit (RX) switch.
- D. Exit devices: Von Duprin as scheduled.
1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
  2. Provide certificate by independent testing laboratory that device has completed over 1,000,000 cycles and can still meet ANSI/BHMA A156.3 standards.
  3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
  4. Provide exit devices cut to door width and height. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
  5. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
  6. Provide flush end caps for exit devices.
  7. Exit devices shall comply with CBC Section 11B-404.2.7 and shall be mounted between 34" and 44" above the finished floor surface.
  8. Provide exit devices UL certified to meet 5 lbs. maximum unlatching force requirements according to the CBC Section 11B-309.4.
  9. Cylinders: Refer to "KEYING" article, herein.
  10. Provide cylinder dogging as specified at non fire-rated openings. Provide cylinder dogging indicators (CDSI) for visible indication of dogging status as specified.
  11. Removable Mullions: Provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
  12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
  13. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
  14. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
  15. Provide exit devices with manufacturer's approved strikes.
  16. Provide electrified options as scheduled.
  17. Panic hardware shall not be provided with "Night Latch" (NL) function for any accessible doors or gates unless the following conditions are met per DSA Interpretation 10-08 DSA/AC. Such conditions must be clearly demonstrated and indicated in the specification:
    - a. Panic hardware contains a "dogging" feature and during the time the facility is open the panic hardware shall be "dogged".
    - b. The act of "dogging" a door in the open position shall only be performed by employees as a part of their job function (non-public use).
- E. Closers: LCN as scheduled.
1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.

2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
  3. Provide certificate by independent testing laboratory that door closers have completed over 10,000,000 cycles and can still meet ANSI/BHMA A156.4 standards.
  4. Cylinder Body: 1-1/2" diameter with 3/4" diameter double heat-treated pinion journal.
  5. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120° F to -30° F.
  6. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
  7. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
  8. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearm for parallel arm closers.
  9. Pressure Relief Valve (PRV) Technology: Not permitted.
  10. Provide door closers powder coated to match balance of door hardware. Powder coating finish shall be certified to exceed 100 hours salt spray testing as described in ANSI/BHMA A156.4 and ASTM B117.
  11. Provide special rust inhibitor (SRI) in highly corrosive areas, and where noted in hardware sets.
  12. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.
- F. Flush Bolts & Dust Proof Strikes:
1. Automatic flush bolts shall be of the low operating force design.
  2. Provide top bolt only model for interior doors where applicable and as permitted by testing procedures.
  3. Provide dust proof strikes at openings using bottom bolts.
  4. Manual flush bolts shall only be permitted on storage or mechanical openings, as scheduled.
- G. Door Stops:
1. Unless otherwise noted in hardware sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.
  2. Do not install floor stops more than four (4) inches from the face of the wall or partition (CBC Section 11B-307).
  3. Provide backing plate at wall framing behind wall type.
  4. Overhead stops shall be made of stainless steel and non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions. Stop-only function shall be provided at fire-rated openings.
- H. Protection Plates:
1. Provide kick, mop, and/or armor plates minimum of 0.050" thick, with four beveled edges. Furnish with sheet metal or wood screws, finished to match plates.
  2. Kick plates shall be sized 10" high and 2" less door width (LDW) at single doors and 10" high and 1" LDW at pairs or doors.
  3. Provide mop and armor plates with sizes as scheduled in hardware sets.
- I. Thresholds: As scheduled and per details.
1. Thresholds shall not exceed 1/2" in height, with a beveled surface of 1:2 maximum slope. Thresholds shall comply with CBC Section 11B-404.2.5.
  2. Set thresholds in a full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements in Division 07 "Thermal and Moisture Protection".

3. Use 1/4" fasteners, red-head flat-head sleeve anchors (SS/FHSL).

J. Seals: Provide silicone gasket at all rated and exterior doors.

1. Smoke & Draft Control Doors: Provide UL10C Classified gasketing that complies with NFPA 80 & NFPA 252 for use on "S" labeled Positive Pressure door assemblies.

K. Silencers: Furnish silencers for interior hollow metal frames, 3 for single doors, 2 for pairs of doors. Omit where sound or light seals occurs, or for fire-resistive-rated door assemblies.

## 2.3 KEYING

A. Furnish a Proprietary Schlage masterkey system as directed by the District lock shop. Key system to be designated and combined by the Schlage Master Key Department even if pinned by the Authorized Key Center, Authorized Security Center or a local authorized commercial dealer.

B. A detailed keying schedule is to be prepared by the District lock shop and/or architect in consultation with a representative of Allegion or an Authorized Key Center or Authorized Security Center. Each keyed cylinder on every keyed lock is to be listed separately showing the door #, key group (in BHMA terminology), cylinder type, finish and location on the door.

C. Furnish all cylinders in the Schlage conventional style except the exit device and removable mullion cylinders which will be supplied in Schlage Full Size Interchangeable Core (FSIC). Pack change keys independently (PKI).

D. Furnish construction keying for doors requiring locking during construction.

E. Furnish all keys with visual key control.

1. Stamp key "Do Not Duplicate".
2. Stamp (BHMA) key symbol on key.
3. Stamp unique owner identifier from the key bow.

F. Furnish all cylinders with visual key control.

1. Stamp (BHMA) key symbol on side of cylinder (CKC).

G. Furnish mechanical keys as follows:

1. Furnish 2 cut change keys for each different change key code.
2. Furnish 1 uncut key blank for each change key code.
3. Furnish 6 cut masterkeys for each different masterkey set.
4. Furnish 3 uncut key blanks for each masterkey set.
5. Furnish 2 cut control keys cut to the top masterkey for permanent I/C cylinders.
6. Furnish 1 cut control key cut to each SKD combination.

## 2.4 FINISHES

A. Generally to be satin chrome US26D (626 on bronze and 652 on steel) unless otherwise noted.

B. Furnish push plates, pull plates and kick or armor plates in satin stainless steel US32D (630) unless otherwise noted.

C. Door closers shall be powder-coated to match other hardware, unless otherwise noted.

D. Aluminum items to be finished anodized aluminum except thresholds which can be furnished as standard mill finish.

## **2.5 FASTENERS**

- A. Screws for strikes, face plates and similar items shall be flat head, countersunk type, provide machine screws for metal and standard wood screws for wood.
- B. Screws for butt hinges shall be flathead, countersunk, full-thread type.
- C. Fastening of closer bases or closer shoes to doors shall be by means of sex bolts and spray painted to match closer finish.
- D. Provide expansion anchors for attaching hardware items to concrete or masonry.
- E. All exposed fasteners shall have a phillips head.
- F. Finish of exposed screws to match surface finish of hardware or other adjacent work.
- G. All Exit Devices and Lock Protectors shall be fastened to the door by the means of sex bolts or through bolts.

## **PART 3 - EXECUTION**

### **3.1 INSPECTION**

- A. Verify that doors and frames are square and plumb and ready to receive work and dimensions are as instructed by the manufacturer.
- B. Beginning of installation means acceptance of existing conditions.

### **3.2 INSTALLATION**

- A. Install hardware in accordance with manufacturer's instructions and requirements of DHI.
- B. Use the templates provided by hardware item manufacturer.
- C. Mounting heights for hardware shall be as recommended by DHI. Operating hardware shall be located between 34" and 44" above finish floor to comply with CBC Section 11B-404.2.7.
- D. Door Closers:
  - 1. Place door closers inside building, stairs, rooms, etc. Closers shall be installed to permit doors to swing 180 degrees or maximum allowable by conditions.
  - 2. Maximum effort to operate closers shall not exceed 5 lbs., such pull or push effort being applied at right angles to hinged doors.
  - 3. When fire doors are required, the maximum effort to operate the closer may be increased but shall not exceed 15 lbs. when specifically approved by fire marshal.
  - 4. All closers shall be adjusted to operate with the minimum amount of opening force and still close and latch the door. These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.
  - 5. Compensating devices or automatic door operators may be utilized to meet the above standards.
  - 6. Per CBC Section 11B-404.2.8.1, doors shall take minimum of 5 seconds to move from an open position of 90 degrees to 12 degrees to the latch jamb.

- E. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- G. Set thresholds for exterior doors in full bed of butyl-rubber sealant.
- H. If hand of door is changed during construction, make necessary changes in hardware at no additional cost.
- I. Electronic Hardware:
  - 1. Hardware Installer shall coordinate with security contractor to route cable to connect electrified locks, panic hardware and fire exit hardware to power transfers or electric hinges at the time these items are installed so as to avoid disassembly and reinstallation of hardware.
  - 2. Hardware Installer shall also be present with the security contractor when the power is turned on for the testing of the electronic hardware applications. Installer shall make adjustments to solenoids, latches, vertical rods and closers to insure proper and secure operation.
  - 3. All wiring for electro-mechanical hardware mounted on the door shall be connected through the power transfer and terminated in the interface junction box specified for in the Electrical Section.
  - 4. Conductors shall be minimum 18 gage stranded, multicolored. A minimum 12 in. loop of conductors shall be coiled in the interface junction box. Each conductor shall be permanently marked with its function.
  - 5. If a power supply is specified in the hardware sets, all conductors shall be terminated in the power supply. Make all connections required for proper operation between the power supply and the electro-mechanical hardware. Provide the proper size conductors as specified in the manufacturer's technical documentation.

### **3.3 ADJUST AND CLEAN**

- A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
- B. Clean adjacent surface soiled by hardware installation.
- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy, return to that work area and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- D. Instruct Owner's Personnel in proper adjustment and maintenance of hardware finishes, during the final adjustment of hardware.
- E. Continued Maintenance Service: Approximately six months after the completion of the project, the Contractor accompanied by the Architectural Hardware Consultant, shall return to the project and re-adjust every item of hardware to restore proper functions of doors and hardware. Consult with and instruct Owner's personnel in recommended additions to the maintenance procedures. Replace hardware items which have deteriorated or failed due to faulty design, materials or

installation of hardware units. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware.

**3.4 HARDWARE LOCATIONS**

- A. Conform to CCR, Title 24, Part 2; and ADAAG; and the drawings for access-compliant positioning requirements for the disabled.

**3.5 FIELD QUALITY CONTROL**

- A. Contractor is responsible for providing the services of an Architectural Hardware Consultant (AHC) or a proprietary product technician to inspect installation and certify that hardware and its installation have been furnished and installed in accordance with manufacturers' instructions and as specified herein.

**3.6 HARDWARE SCHEDULE**

- A. The items listed in the following schedule shall conform to the requirements of the foregoing specifications.
- B. While the hardware schedule is intended to cover all doors, and other movable parts of the building, and establish type and standard of quality, the contractor is responsible for examining the Plans and Specifications and furnishing proper hardware for all openings whether listed or not. If there are any omissions in hardware groups in regard to regular doors they shall be called to the attention of the Architect prior to bid opening for instruction; otherwise, list will be considered Complete. No extras will be allowed for omissions.
- C. The Door Schedule on the Drawings indicates which hardware set is used with each door.

MANUFACTURERS ABBREVIATIONS

IVE	=	Ives	Hinges
SCE	=	Schlage Electronics	Electronic Door Components
SCH	=	Schlage Lock	Locks, Latches & Cylinders
VON	=	Von Duprin	Exit Devices & Electric Strikes

**Bud Rank Elementary School**

**HW GROUP NO. 01**

For use on Door #(s):  
A2

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	DOOR CORD	798C-18	626	SCE
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 02**

For use on Door #(s):  
A1 F8

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 03**

For use on Door #(s):

F1                      C1                      C2                      D1                      D2                      E1  
 E2

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	90 DEG OFFSET PULL	8190HD 12" O	630	IVE
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE

1. REMOVE DOOR PULL FROM LHR LEAF.
2. COVER HOLES WITH PLATES AND/OR THRU-BOLTS AS REQUIRED.

**HW GROUP NO. 04**

For use on Door #(s):

F5                      F9

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	STOREROOM LOCK	ND80P6D RHO	626	SCH
1	EA	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	630	VON
1	EA	LOCK GUARD	LG14	630	IVE
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE



**HW GROUP NO. 05**

For use on Door #(s):  
 F7

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
RE-USE BALANCE OF EXISTING HARDWARE					

1. REMOVE DOOR PULL FROM LHR LEAF.
2. COVER HOLES WITH PLATES AND/OR THRU-BOLTS AS REQUIRED.

**HW GROUP NO. 06**

For use on Door #(s):  
 F6

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	EU STOREROOM LOCK	ND80P6DEU RHO 12/24 VDC	626	SCH
1	EA	LOCK GUARD	LG13	630	IVE
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
RE-USE BALANCE OF EXISTING HARDWARE					

**HW GROUP NO. 07**

For use on Door #(s):

F2                      F3                      F4

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE

1. REMOVE DOOR PULL FROM LHR LEAF.
2. COVER HOLES WITH PLATES AND/OR THRU-BOLTS AS REQUIRED.

**HW GROUP NO. MISC**

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
7	EA	POWER SUPPLY	PS904 900-4R 900-BBK 120/240 VAC		VON

- 1 EA POWER SUPPLY AT A BUILDING
- 1 EA POWER SUPPLY AT C BUILDING
- 1 EA POWER SUPPLY AT D BUILDING
- 1 EA POWER SUPPLY AT E BUILDING
- 3 EA POWER SUPPLY AT F BUILDING

**Fort Washington Elementary School**

**HW GROUP NO. 01**

For use on Door #(s):  
D2

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	DOOR CORD	798C-18	626	SCE
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 02**

For use on Door #(s):  
D4

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	EXIT DEVICE TRIM	990-NL-RV	626	VON
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

COVER HOLES WITH PLATES AND/OR THRU-BOLTS AS REQUIRED

**HW GROUP NO. 03**

For use on Door #(s):  
D7

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 04**

For use on Door #(s):  
C1

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	612	IVE
1	EA	ELEC PANIC HARDWARE	RX-QELX-PA-AX-99-NL	612	VON
1	EA	RIM CYLINDER	20-057	612	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 05**

For use on Door #(s):  
D3                      D9

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	STOREROOM LOCK	ND80P6D RHO	626	SCH
1	EA	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	630	VON
1	EA	LOCK GUARD	LG14	630	IVE
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 06 – NOT USED**

**HW GROUP NO. 07**

For use on Door #(s):

D5                      D6                      D10

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	EXIT ONLY TRIM	990-EO	626	VON
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
RE-USE BALANCE OF EXISTING HARDWARE					

REMOVE DT TRIM FROM LHR LEAF AND REPLACE WITH EXIT ONLY TRIM

**HW GROUP NO. 08**

For use on Door #(s):

D8

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	EU STOREROOM LOCK	ND80P6DEU RHO RX 12/24 VDC	626	SCH
1	EA	LOCK GUARD	LG13	630	IVE
1	EA	MULTITECH READER	BY WORK OF DIVISION 28	BLK	SCE
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28	628	SCE
RE-USE BALANCE OF EXISTING HARDWARE					

**HW GROUP NO. 09**

For use on Door #(s):

D1

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	DOOR CORD	798C-18	626	SCE
1	EA	EXIT ONLY TRIM	990-EO	626	VON
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

REMOVE DT TRIM FROM LHR LEAF AND REPLACE WITH EXIT ONLY TRIM

**HW GROUP NO. MISC**

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
4	EA	POWER SUPPLY	PS904 900-4R 900-BBK 120/240 VAC		VON

1 EA POWER SUPPLY AT C BUILDING

3 EA POWER SUPPLY AT D BUILDING

**Clovis High School**

**HW GROUP NO. 01**

For use on Door #(s):

A2                      A3

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	DOOR CORD	798C-18	626	SCE
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 02 – NOT USED**

**HW GROUP NO. 03**

For use on Door #(s):

A5                      A6

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RX SWITCH KIT	050251-00		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 04**

For use on Door #(s):

F13                      S6

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	ELEC PANIC HARDWARE	RX-QELX-PA-AX-99-NL	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 05 – NOT USED**

**HW GROUP NO. 06**

For use on Door #(s):

F9

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	STOREROOM LOCK	ND80P6D RHO	626	SCH
1	EA	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	630	VON
1	EA	LOCK GUARD	LG14	630	IVE
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
1	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
			RE-USE BALANCE OF EXISTING HARDWARE		

**HW GROUP NO. 07 & 08 – NOT USED**



**HW GROUP NO. 09**

For use on Door #(s):

B1                      B6

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	DOOR CORD	798C-18	626	SCE
1	EA	EXIT ONLY TRIM	990-EO	626	VON
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE

1. REMOVE DT TRIM FROM LHR LEAF AND REPLACE WITH EXIT ONLY TRIM
2. AT DOOR B1 - WIRE AUTO OPERATOR INTO ACCESS CONTROL SYSTEM

**HW GROUP NO. 10**

For use on Door #(s):

C1                      C2                      C3                      C4                      C5                      D1  
 D2                      D3                      D4                      D5

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
2	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE

1. AT DOORS C2, C5, D2 & D5 - WIRE AUTO OPERATOR INTO ACCESS CONTROL SYSTEM

**HW GROUP NO. 11**

For use on Door #(s):

A1	F2	F3	F4	F5	F6
F7	F10	F11	F12	N1A	N1B
N2A	N2B	N3	N4	S1A	S1B
S2B	S3	S4B	S5	S7	

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	ELEC PANIC HARDWARE	QELX-PA-AX-99-NL	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE

1. REMOVE DT TRIM FROM LHR LEAF, AS REQUIRED
2. FLIP DOGGING COVER PLATE ON LHR PANIC DEVICE
3. COVER HOLES WITH PLATES AND/OR THRU-BOLTS, AS REQUIRED

**HW GROUP NO. 12**

For use on Door #(s):

F1	F8
----	----

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
2	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	ELEC PANIC HARDWARE	RX-QELX-PA-AX-9927-DT-LBR	626	VON
1	EA	ELEC PANIC HARDWARE	RX-QELX-PA-AX-9927-NL-LBR	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		

RE-USE BALANCE OF EXISTING  
 HARDWARE

1. WIRE AUTO OPERATOR INTO ACCESS CONTROL SYSTEM

**HW GROUP NO. 13**

For use on Door #(s):  
 N5

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 5 X 4.5 CON TW8	652	IVE
1	EA	ELEC PANIC HARDWARE	QELX-PA-AX-99-NL-4'	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
RE-USE BALANCE OF EXISTING HARDWARE					

1. FLIP DOGGING COVER PLATE ON LHR PANIC DEVICE

**HW GROUP NO. 14**

For use on Door #(s):  
 N6

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 5 X 4.5 CON TW8	652	IVE
1	EA	EXIT DEVICE TRIM	990-NL-RV	626	VON
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
RE-USE BALANCE OF EXISTING HARDWARE					

1. FLIP DOGGING COVER PLATE ON LHR PANIC DEVICE  
 2. COVER HOLES WITH PLATES AND/OR THRU-BOLTS, AS REQUIRED

**HW GROUP NO. 15**

For use on Door #(s):

S2A                      S4A

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
1	EA	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 CON TW8	652	IVE
1	EA	EXIT DEVICE TRIM	990-NL-RV	626	VON
1	EA	LD COVER PLATE	050589	628	VON
1	EA	QEL CONVERSION KIT	958003		VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MULTITECH READER	BY WORK OF DIVISION 28		
2	EA	DOOR CONTACT	BY WORK OF DIVISION 28		
1	EA	REQUEST TO EXIT SENSOR	BY WORK OF DIVISION 28		
RE-USE BALANCE OF EXISTING HARDWARE					

1. REMOVE DT TRIM FROM LHR LEAF
2. FLIP DOGGING COVER PLATE ON LHR PANIC DEVICE
3. COVER HOLES WITH PLATES AND/OR THRU-BOLTS, AS REQUIRED

**HW GROUP NO. MISC**

<u>QTY</u>		<u>DESCRIPTION</u>	<u>CATALOG NUMBER</u>	<u>FINISH</u>	<u>MFR</u>
17	EA	POWER SUPPLY	PS904 900-4R 900-BBK 120/240 VAC		VON

- 2 EA POWER SUPPLY AT A BUILDING
- 2 EA POWER SUPPLY AT B BUILDING
- 2 EA POWER SUPPLY AT C BUILDING
- 2 EA POWER SUPPLY AT D BUILDING
- 4 EA POWER SUPPLY AT F BUILDING
- 2 EA POWER SUPPLY AT N BUILDING
- 3 EA POWER SUPPLY AT S BUILDING

**END OF SECTION 08 71 00**