DLR Group inc.
a Kansas corporation

7290 West 133rd Street
Overland Park, KS 66213

03/29/2024

City Of Lee's Summit
220 SE Green Street, Lee' Summit, MO 64063
City Contact: Joe Frogge, Joe.Frogge@cityofls.net, 816 969 1241

Re: MCC Automotive Institute Building Addition and Renovation
500 SW Longview Road, Lee's Summit, Mo 64081
DLR Group Project No.: 13-23128-00
Permit Number: PRCOM20240778
Application Type: Plan Review

Dear Joe,

Thank you for all the review comments we received. Please note as part of the FDP comments, we needed to submit our project for Preliminary Development Plan. We have submitted for the same on 03/22. As part of this submittal, we have attempted to respond to the comments already received from the FDP process as well as the Plan Review comments. All Drawing changes are clouded as City Comments and are dated 03.29.24.
As discussed, you are willing to accept the responses to the comments for plan review during the PDP process to pursue a permit for the renovation scope in Area B.
Please note that we responded to the Building Codes' comments received from the FDP review in our submittal on 03/22/2024 and are being reviewed as part of the PDP submittal.
Please see the Design team responses in RED.

Sincerely,
Ishita Banerjii
Project Manager | Senior Associate
ibanerjii@dlrgroup.com

DLR Group
o: 913-897-7811 | m: 913-314-8855

Licensed Contractors **Reviewed By: Joe Frogge** **Rejected**

1. Lee's Summit Code of Ordinance, Section7-130.10 - Business License. It shall be unlawful for any person to engage in the construction contracting business without first obtaining a business license as required under the applicable provisions of Chapter 28 of the Lee's Summit Code of Ordinances.

Action required: Provide an email address & phone number for the on-site contact which is where inspection reports will be sent.

Design Team Response: Dan Daly from Mc Cown Gordon Construction will be on site as Site Superintendent – 816-723-7918 ddaly@mccowngordon.com
Lindsay Murray from Mc Cown Gordon Construction will be the Project Manager on site - 816-715-0795 lmurray@mccowngordon.com

2. Lee's Summit Code of Ordinance, Section7-130.4 - Business License. (excerpt)
No person, other than a licensed contractor or employees of a licensed contractor, shall engage in electrical, plumbing or mechanical business, construction, installation or maintenance unless duly licensed in accordance with this section.

Design Team Response: Comment is noted, McCown Gordon Construction is the CmaR on the project. The project has is being in the process of awarding to the various trade partners and their License Numbers can be provided as needed. All trade partners will be licensed contractors.

Building Plan Review **Reviewed By: Joe Frogge** **Rejected**

1. The building permit for this project cannot be issued until the Development Services Department has received, approved, and processed the Final Development Plan.

Design Team Response: The project has been submitted for the PDP process and is awaiting comments. This submittal is in response to the plan review comments and an attempt to pursue a potential partial permit for the Renovation scope.

2. "2018 IBC 1704.2 Special inspections. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more approved agencies to perform inspections during construction on the types of work listed under Section 1705. These inspections are in addition to the inspections identified in Lee's Summit Code of Ordinances Chapter 7. (see code section for exceptions)

Action required: Provide statement of special inspections / letter of responsibility from company contracted to perform special inspections."

Design Team Response: Kruger Technologies, Inc, is under contract with MCC and will be providing the special inspections. They are generating a statement of Responsibility and is attached.

3. 2018 IBC 1004.1 Design occupant load. In determining means of egress requirements, the number of occupants for whom means of egress facilities shall be provided shall be determined in accordance with this section.

Action required: Provide total occupant loads for renovation and addition. Also, justify use of 1:300 calc in shop areas. Should it be Educational/Shops & other at 1:50, or maybe Industrial at 1:100? Clarify.

Design Team Response: Refer to updated code sheets. The occupant load for the addition in the Automotive shop has been updated to 1:50 as per Educational/Shops. The occupant loads for the shop areas in Area B is still being calculated as 1:300 based on the actual maximum occupant load as provided by the College.

4. Prior to the installation or construction of any elevator equipment, an elevator equipment permit shall be obtained from the Missouri Department of Public Safety or its authorized representative.

Action required: Comment is informational.

Design Team Response: Noted.

5. Prior to the operation of any new elevator equipment or the issuance of the operating certificate, such elevator equipment shall be inspected by a licensed inspector. Testing must be performed in accordance with these rules and regulations. The testing must be witnessed by a licensed inspector.

Action required: Comment is informational.

Design Team Response: Noted, Contractor will coordinate during construction.

6. Elevator Safety Act and Rules 701.361 - Each privately owned or operated installation and each installation owned or operated by the state of Missouri or any political subdivision of the state shall have a certificate of inspection and meet the safety code promulgated pursuant to sections 701.350 to 701.380.

Action required: Comment is informational.

Design Team Response: Noted, Owner will coordinate during construction.

7. Unified Development Ordinance Article 8, Section 8.180.F
Ground mounted equipment – Ground mounted equipment shall be totally screened from view by landscaping or masonry wall up to a height of the units to be screened.
Action required: Make needed corrections to drawings that provide details as to how mechanical equipment will be screened from all 4 sides per referenced UDO section.

Design Team Response: Mechanical equipment is located in between the addition and the renovation on the south side and completely screened from public view, refer to comment on sheet A1.1.

8. ICC A117.1 Section 404.2.3.2 Swinging Doors and gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.3.2.

Action required: Provide minimum 18" clearance at latch side of door B107.1 (out of Lobby B107 into stair).

Design Team Response: Door B107.1 is adjusted to provide the required clearance, refer to sheet A1.1B.

9. 2017 NEC Article 110.26 (C)(3) Personnel Doors. Where equipment rated 800 A or more that contains overcurrent devices, switching devices, or control devices is installed and there is a personnel door(s) intended for entrance to and egress from the working space less than 25 feet from the nearest edge of the working space, the door(s) shall open in the direction of egress and be equipped with panic hardware.

Action required: Provide panic hardware on doors A107 & B107.

Design Team Response: Doors A107 and B105 are scheduled with Panic Hardware as per Specification section 087100 (attached for reference). B107 is not an electrical room, therefore no Panic Hardware is accounted for.

10. 2018 IBC 706.1 General. Fire walls shall be constructed in accordance with Sections 706.2 through 706.11. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates occupancies that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply.

Action required: Provide complete construction details for UL 411.

Design Team Response: UL 415 is added to sheet A8.1.

11. 2018 IBC 603.1 Allowable Materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3: (see code for specific examples and exceptions)

Action required: Provide verification that wood labelled as "treated" in parapet detail (and similar) is fire retardant treated.

Design Team Response: Plywood is noted as Fire retardant treated, refer to sheet A9.1.

12. 2018 IBC 1803.1 General. Geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the building official or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a registered design professional.

Action required: Provide soils report to justify design assumption of soil bearing capacity greater than 2,000psf. (2,500 shown on sheet S0.1)

Design Team Response: Geo Tech Report is attached.

13. .2018 IPC 1101.3 Prohibited drainage. (as amended by LSCO 7-413) Sanitary sewer systems shall be designed, built and maintained in such a manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pumps, foundation drains, yard drains, gutter downspouts and any other storm water drainage receptacle(s) or system(s) are specifically prohibited from being connected to the sanitary sewer system.

Action required: Re-route elevator sump discharge piping to storm drains or daylight.

Design Team Response: Refer to updated sheets C4.21 and P1.1A.

14. 2018 IPC 708.1.3 Building drain and building sewer junction. The junction of the building drain and the building sewer shall be served by a cleanout that is located at the junction or within 10 feet of the developed length of piping upstream of the junction. For the requirements of this section, the removal of a water closet shall not be required to provide cleanout access.

Action required: Provide cleanouts near where waste pipes exit building.

Design Team Response: Refer to updated sheets C4.31.

15. Unable to find plumbing materials.

Action required: Provide pipe material schedule that includes, but is not limited to, water, waste, vent, gas, compressed air, etc.

Design Team Response: Refer to updated sheet P6.1.

16. 2018 IMC 606.2.1 Return air systems. Smoke detectors shall be installed in return air systems with a design capacity greater than 2,000 cfm, in the return air duct or plenum upstream of any filters, exhaust air connections, outdoor air connections, or decontamination equipment and appliances.
Exception: Smoke detectors are not required in the return air system where all portions of the building served by the air

distribution system are protected by area smoke detectors connected to a fire alarm system in accordance with the International Fire Code. The area smoke detection system shall comply with Section 606.4.

Action required: Provide duct mounted smoke detector in a/c unit IU-A201A

Design Team Response: Smoke detection per IU-201A is not required as the supply air is at 1950 cfm. which is under the 2000 cfm threshold.

17. A code analysis shall be provided which includes but is not limited to occupancy type, occupant load, construction type, actual area, height and floors, allowable area, height and floors, and the codes to which the project is designed.

Action required: Modify code information on sheet CP0.1 to reflect correct occupancy classification which is S1.

Design Team Response: Refer to updated sheet CP0.1.

Fire Plan Review **Reviewed By: Jim Eden** **Rejected**

1. 2018 IFC 907.1.1- Construction documents. Construction documents for fire alarm systems shall be submitted for review and approval prior to system installation. Construction documents shall include, but not be limited to, all of the following: 1. .A floor plan which indicates the use of all rooms. 2. Locations of alarm-initiating and notification appliances. 3. Alarm control and trouble signaling equipment. 4. Annunciation. 5. Power connection. 6. Battery calculations. 7. Conductor type and sizes. 8. Voltage drop calculations. 9. Manufacturers, model numbers and listing information for equipment, devices and materials. 10. Details of ceiling height and construction. 11. The interface of fire safety control functions.

Provide shop drawings for review and approval.

Design Team Response: This will be a deferred submittal as shop drawings are not generated yet. The contractor will be submitting to AHJ upon Engineer Review.

2. 2018 IFC 505.1- Address numbers. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. In Multi-tenant commercial building where tenants have multiple entrances located on different sides of the building , each door shall be addressed. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm).

Verified at inspection.

Design Team Response: New Addition and existing building is on MCC Campus and does not have any individual addresses.

3. 2018 IFC 901.2- Construction documents. The fire code official shall have the authority to require construction documents and calculations for all fire protection systems and to require permits be issued for the installation, rehabilitation or modification of any fire protection system. Construction documents for fire protection systems shall be submitted for review and approval prior to system installation.

Provide shop drawings for review and approval. Will this be a separate system from the existing automotive building.

Design Team Response: This will be an integrated system. This will be a deferred submittal as shop drawings are not generated yet. The contractor will be submitting to AHJ upon Engineer Review.

4. 2018 IFC 906.2- General requirements. Portable fire extinguishers shall be selected, installed and maintained in accordance with this section and NFPA 10.

Design Team Response: Noted, to be maintained by Owner.

5. Complete site items listed on the Final Development Plan.

Design Team Response: FDP comments are addressed as per updated Civil sheets.

6. The classification is a B/S1 Automotive Repair.

Design Team Response: Refer to updated sheet CP0.1.

7. 2018 IFC 907.2.12.1.2 Duct smoke detection. Duct smoke detectors complying with Section 907.3.1 shall be located as follows: a/c unit IU-A201A.

Design Team Response: Smoke detection per IU-201A is not required as the supply air is at 1950 cfm. which is under the 2000 cfm threshold.

8. 2018 IFC 1008.3.1 & 3.2 Emergency power for illumination. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.
In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following:
1. Aisles and unenclosed egress stairways in rooms and spaces that require two or mor means of egress.
2. Corridors, interior exit stairways and ramps and exit passageways in buildings required to have two or more exits.
3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.

Provide exterior emergency lighting over door A108E.

Design Team Response: Wall luminaire SW44 to southwest of door A108E has inverter emergency power and provides emergency egress illumination in excess of 1fc minimum requirement at door A108E. Refer to sheet E1.1A.

SECTION 087100 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Intent: The intent of this Section is to provide finish hardware for the proper operation and control of all wood, hollow metal and aluminum doors in the Project. Prior to bidding, notify the Architect of any doors that do not have hardware meeting this intention.

B. This Section includes items known commercially as finish or door hardware that are required for swinging doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed. This Section includes, but is not necessarily limited to furnishing and installing complete, the following:

1. Finish hardware for proper operation and control of all wood, aluminum and hollow metal doors, including hinges, locks and latch sets, closers, panic devices, autoflushbolts, electric strikes, magnetic holders, removable mullions, cylinders, keys, miscellaneous stops, flat goods, weatherstripping and thresholds as required.
2. Cylinder for access doors where specified.

C. Related work in other sections:

1. Hollow metal doors, frames and silencers: Section 081113.
2. Wood doors: Section 081416.
3. Aluminum doors: Section 084113.

1.3 DEFINITIONS

A. "Finish Hardware" includes items known commercially as finish hardware which are required for swing, and folding doors, except special types of unique and non-matching hardware specified in the same section as the door and door frame.

1.4 ACTION SUBMITTALS

A. Product Data: Submit manufacturer’s technical product data for each hardware item. Include information necessary to show compliance with requirements, and include instructions for installation and for maintenance of operating parts and finishes.

1. Manufacturer shall submit written certification confirming closers compliance with U.L. 10C.

B. Hardware Schedule: Submit a hardware schedule in a vertical format (horizontal format not acceptable), organized into sets, including the information below. Designations for door numbers and hardware sets in the schedule shall match those used in the Construction Documents for each opening.

1. Hardware Schedule shall be coordinated with doors, frames, and related work to ensure proper size, thickness, hand function, and finish of door hardware.
2. Catalog cuts of each type of exposed hardware unit, highlighted in color to indicate compliance with the Hardware Schedule.
3. Type, style, function, size and finish of each hardware item.
4. Name and manufacturer of each item.
5. Fastenings and other pertinent information.
6. Explanation of all abbreviations, symbols, codes, etc., contained in schedule.
7. Mounting locations for hardware.
8. Door and frame sizes and materials.
9. Deviations from Specifications shall be noted in cover letter.

C. Submittal Sequence: Submit schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work (e.g., hollow metal frames) which is critical in the project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by finish hardware, and other information essential to the coordinated review of hardware schedule.

D. Keying Schedule: Submit separate detailed schedule, at the same time as the Hardware Schedule, indicating keying for all locks and how Owner’s instructions, on keying of locks has been fulfilled. Keying schedule must be approved before ordering any locks.

E. Templates: Furnish hardware templates to each fabricator of doors, frames and other work to be factory-prepared for the installation of hardware. Upon request, check shop drawings of such other work, to confirm that adequate provisions are made for proper location and installation of hardware.

1.5 QUALITY ASSURANCE

A. Manufacturer: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.

B. Product/Material Qualifications: Manufacturer's product numbers are indicated for convenience in identifying finish hardware items. Unless otherwise indicated, manufacturer’s description for indicated product number constitutes minimum standards of quality, design, function and performance required for each item to be incorporated into the Project.

1. It will be the responsibility of the Bidder to furnish with his Bid a list clarifying any deviations from these specifications written or implied, in order that a fair and proper

evaluation be made. Those Bidders not submitting a list of deviations will be presumed to have Bid as specified.

C. Supplier Qualifications: A recognized Architectural Finish Hardware Supplier, with warehousing facilities, who has been furnishing hardware in the project's vicinity for a period of not less than 2 years. Supplier shall be or employ an experienced Architectural Hardware Consultant (AHC) who is certified by and member of the Door and Hardware Institute. The Architectural Hardware Consultant shall be available, at reasonable times during the course of the work, for consultation about project's hardware requirements, to Owner, Architect and Contractor.

1. Supplier shall meet with the Owner to finalize keying requirements and obtain final instructions in writing.

D. Fire-Rated Openings: Provide hardware for fire-rated openings in compliance with NFPA Pamphlets No. 80, No. 101 and of authorities having jurisdiction requirements. Provide only hardware which has been tested and listed by UL, FM or Warnock Hersey for types and sizes of doors required and complies with requirements of door and door frame labels.

1. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors' UL or FM labels indicating "Fire Door to be Equipped with Fire Exit Hardware") provide UL or FM label on exit devices indicating "Fire Exit Hardware".

E. Standards: Comply with the requirements of the latest edition of the following standards, unless indicated otherwise:

1. American National Standards Institute (ANSI) Publications:

   a. A115 Series - Door and Frame Preparation.
   b. A156 Series - Hardware.

2. Builders Hardware Manufacturers Association (BHMA) Publications:

   a. 1201 - Auxiliary Hardware.
   b. 1301 - Materials and Finishes.

3. Door and Hardware Institute (DHI) Publications:

   a. Keying - Procedures, Systems, and Nomenclature.
   b. Abbreviations and Symbols.
   c. Hardware for Labeled Fire Doors.
   d. Recommended Locations for Builder's Hardware for Standard and Custom Steel Doors and Frames.
   e. Wood Door Standards W1, W2, WDHS-2, WDHS-3.

4. National Fire Protection Association (NFPA) Publications:

   a. NFPA Pamphlet No. 80 - Standards for Fire Doors and Windows.

5. International Building Code - current edition as adopted and amended by the authority having jurisdiction.

6. Americans with Disabilities Act (ADA).

F. Keying Conference: Conduct conference in accordance with Section 013100. In addition to Owner, Construction Manager, and Architect, conference participants shall also include Installer's Architectural Hardware Consultant. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:

1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans forfuture expansion.
2. Preliminary key system schematic diagram.
3. Requirements for key control system.
4. Address and timeframe for delivery of keys and cores.

G. Preinstallation Conference: Conduct conference at Project site to comply with requirements of Section013100 as follows:

1. Architectural Finish Hardware supplier (AFHS) shall conduct the preinstallation conference at the site. The AFHS shall instruct finish hardware installer on proper installation, adjustment and troubleshooting for each operable item of finish hardware specified. The AFHS shall observe the installation and adjustment of the first three locksets, closers and exit devices.

1.6 DELIVERY, STORAGE AND HANDLING

A. Package each hardware item in separate containers with all screws, wrenches, installation instructions and installation templates. Mark or tag each box with hardware heading and door number according to approved hardware schedule.

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

C. Deliver individually packaged hardware items at the proper times to the proper locations (shop or project site) for installation. Provide a complete packing list showing items, door numbers and hardware headings with each shipment.

D. Store hardware in shipping cartons above ground and under cover to prevent damage.

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

E. Aluminum Door Hardware - Deliver hardware for aluminum doors as directed by the door supplier for factory installation by the aluminum door manufacturer.

F. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing 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.

B. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to power supplies, fire alarm system and detection devices, access control system, security system, and building control system, as applicable.

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.

B. Maintenance Service: If there are any products listed hereinafter that normally require a maintenance or service contract, provide the Owner and Architect with details and costs of standard maintenance or service contract.

PART 2 - PRODUCTS

2.1 HARDWARE - GENERAL

A. Provide the materials or products indicated by trade names, manufacturer's name, or catalog number.

B. Provide manufacturer's standard products meeting the design intent of this Specifications, free of imperfections affecting appearance or serviceability.

1. Base Metals: Produce hardware units of basic metal and forming method indicated using manufacturer’s standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units for finish designations indicated.
2. Provide hardware complete with all fasteners, anchors, instructions, layout templates, and any specialized tools as required for satisfactory installation and adjustment.
3. Hand of door: Drawings show direction of slide, swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
4. Furnish screws for installation, with each hardware item. Provide Phillips flat-head screws except as otherwise indicated or approved. Finish screws exposed under any condition to match hardware finish or, if exposed in surfaces of other work, to match finish of such other work as closely as
5. Finish all other hardware in accordance with the BHMA finish as follows, unless otherwise indicated in manufacturers screws to secure hardware.
6. Provide concealed fasteners for hardware units which are exposed when door is closed, except to extent no standard units of type specified are available with concealed fasteners.

Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work, except where indicated otherwise or where it is not feasible to adequately reinforce the work. In such cases, provide sleeves for each thru-bolt or use sex bolt fasteners.

7. Provide factory pinned cylinders and cores.

C. Hardware is specified in the hardware schedule by set, type, and functions which have been selected as best meeting the application requirements. Acceptable products for each category are specified under PART 2 of this Specification.

2.2 SPECIAL REQUIREMENTS

A. Hinges:

1. Hinges shall be sized in accordance with the following:

a. Height:

1) Doors up to 41" wide: 4-1/2" inches.
2) Doors 42" to 48" wide: 5 inches.

2. Width: Sufficient to clear frame and trim when door swings 180 degrees.

a. Provide wide throw hinges where required by frame details.

3. Number of Hinges: Furnish 3 hinges per leaf to 7'-6" in height. Add one hinge for each additional 30 inches of height.
4. Provide non-removable pins for all exterior doors and out-swinging corridor doors. Use nonrising pins for all other doors.
5. Pre-drill pilot holes for hinge fasteners at factory to suit hinge type.
6. Provide continuous hinges where specified.

B. Power Transfer Devices:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires sufficient to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer’s template and UL requirements, unless interference with operation of door or other hardware items.
3. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with sufficient number and wire gauge with standardized Molex plug connectors to accommodate electric function of specified hardware. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified power transfer for connection to power supplies.

C. Locksets:

1. Locksets shall meet or exceed ANSI Grade 1 requirements.

2. Electronic locks: Provide motor based electrified locksets with electrified options as scheduled in the hardware sets.

D. Panic Devices:

1. Exit devices are to be grade 1 heavy duty.
2. Devices are to incorporate a flush and tapered end cap.
3. Provide devices with break away type vandal resistant trim.
4. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrical requirements.
6. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware. Touchpads shall not incorporate lexan or plastic push pads.
7. Except on fire-rated doors, or unless specified otherwise, provide panic devices with hex dogging device to hold latch bolt open on doors with closers.
8. Electronic panic devices: Provide motor based electronic latch retraction with electrified options as scheduled in the hardware sets.

E. Closers:

1. Comply with manufacturer's recommendations for unit size based on door size, weather exposure and usage.
2. Provide room side mounted closers, except as otherwise indicated.
3. Provide heavy duty, forged steel closer arms unless otherwise indicated in hardware sets.
4. Through-bolt all closer units, using sex bolt fasteners.
5. Surface closers shall exceed ANSI A156.4 Grade 1 requirements.
6. Furnish all brackets, drop plates, special templates, and any other necessary hardware required to insure proper installation.
7. Closers shall not incorporate Pressure Relief Valve (PRV) technology.
8. Closer cylinders, arms, adapter plates, and metal covers shall have a powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117.

F. Automatic Operators

1. Provide low energy automatic operator electromechanical units complying with ANSI A156.19.
2. Provide units with manual off/auto/hold-open switch, push and go function to activate power operator, vestibule interface delay, electric lock delay, hold-open delay adjustable from 2 to 30 seconds, and logic terminal to interface with accessories, mats, and sensors.
3. Provide drop plates, brackets, or adapters for arms as required for details.
4. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.

G. Stops

1. Provide heavy duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide overhead stop at any door that swings more than 140 degrees before striking wall, opens against equipment, casework, sidelights, and where conditions do not allow wall stop.
2. Provide floor stops only where specified.

2.3 KEYING

A. Provide cylinders/locks with Owner’s Large Format Interchangable core cylinders.

1. Provide construction cylinders for all keyed doors during construction.
2. Permanent cores supplied by Owner.
3. Provide the correct type of cylinder for each hardware application, and supply cylinder with correct tailpiece and/or cam.

B. Provide keys as follows:

1. Construction Keys: Ten (10).

C. Identification: Stamp all (master-type) keys with the following:

1. Do Not Duplicate.
2. Key change number (all keys).

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

A. Requirements:

1. Provide thresholds, weatherstripping (including door sweeps, seals, astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
3. Gasketing and astragals on aluminum frames by door manufacturuer.

2.5 SILENCERS

A. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.6 HARDWARE FINISHES

A. Provide matching finishes for hardware units at each door to the greatest extent possible, unless otherwise indicated. In general, match items to the finish for the latch, lock or push-pull unit for color and texture.

1. Product description or schedule:

a. 626 satin chrome-plated.
b. 630 satin stainless steel.
c. 613 dark bronze.
d. 643E/695 dark bronze.

2.7 HARDWARE PRODUCTS

A. Hinges:

1. Specified manufacturer: IVES Hardware; an Allegion Company.
2. Acceptable substitutions:

a. Hager Companies.
b. McKinney Products Company; an ASSA ABLOY Group company.
c. Stanley Commercial Hardware; Div. of The Stanley Works.

B. Continuous Gear-Type Hinges:

1. Specified manufacturer: IVES Hardware; an Allegion Company.
2. Acceptable substitutions:

a. Hager Companies.
b. Select Products Limited.

C. Locksets:

1. Specified manufacturer: Schlage Lock; an Allegion Company.
2. Acceptable substitutions:

a. Sargent; an ASSA Abloy Company.

D. Exit Devices:

1. Specified manufacturer: Von Duprin; an Allegion Company.
2. Acceptable substitutions:

a. Sargent; an ASSA Abloy Company.

E. Closers:

1. Specified manufacturer: LCN Closers; an Allegion Company.
2. Substitutions: Not allowed. Products to match Owner standard.

F. Automatic Operators:

1. Specified manufacturer: LCN Senior Swing; an Allegion Company.
2. Substitutions: Dorma ED100 Series, a DormaKaba Company.

G. Flatgoods:

1. Specified manufacturer: Ives Hardware; an Allegion Company.
2. Acceptable substitutions:

a. Burns Manufacturing Incorporated.
b. Rockwood; an ASSA Abloy Company.

H. Stops:

1. Specified manufacturer: Ives Hardware; an Allegion Company.
2. Acceptable substitutions:

a. Burns Manufacturing Incorporated.
b. Rockwood; an ASSA Abloy Company.
c. Trimco

I. Thresholds:

1. Specified manufacturer: Zero International.
2. Acceptable substitutions:

a. Pemko Manufacturing; an ASSA Abloy Company.
b. Reese Enterprises.
c. National Guard Products.

J. Door Gasketing:

1. Specified manufacturer: Zero International.
2. Acceptable substitutions:

a. Pemko Manufacturing; an ASSA Abloy Company.
b. Reese Enterprises.
c. National Guard Products.

PART 3 - EXECUTION

3.1 PREPARATION

A. Carefully inspect doors, frames, and conditions under which hardware will be installed. Notify the Architect of any conditions that would adversely affect the installation or subsequent door operations. Do not proceed until unsatisfactory conditions are corrected.

1. Frames shall be verified, inspected, and confirmed by General Contractor as being plumb and true.

B. Refer to Sections 081113, 081416, and 084113 for additional installation requirements.

C. Prior to hardware installation, the Hardware Supplier shall meet with the Owner's Representative, Architect, and Hardware Installer to ensure the Installer has and understands the manufacturers' installation requirements for all hardware items.

1. The Supplier shall observe the installation of the first lockset, closer and panic device.

3.2 INSTALLATION

A. Mount Hardware units at heights indicated in respective DHI Standards, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect.

B. Install each hardware item in compliance with the manufacturer's instructions and written recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be field finished, coordinate removal, storage and reinstallation or application of surface protections with finishing work. Do not install surface-mounted items until finishes have been completed on the substrate.

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

1. Special care shall be taken to avoid damaging surrounding surfaces.

D. Provide fasteners and anchoring devices of suitable size, quantity, and type to secure hardware in proper position for heavy use and long life.

1. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

E. Adjust door closers immediately upon installation. Adjust in exact conformance with manufacturer's printed instructions. Advance backcheck to eliminate shock at dead stop. Set latching speed to assure unassisted positive latching.

1. Degrees of swing of doors for self-limiting closers shall be maximum available.

F. Install each protection plate with a thinly-spread spot of mastic at its center to assure even contact before fastening with screws. Install all such plates on visual centers of closed doors. Set bottom edges of all such plates flush with door bottom.

G. Cut and fit thresholds to door frame profiles. Prepare thresholds for the attachment of strikes and clearance for spindles as required. Set thresholds in a continuously laid bed of polyisobutylene mastic sealant to completely fill voids and exclude moisture from every source.

H. Seal weather protection components attached to the exterior sides of doors and frames, such as drip caps and weatherstripping, in place with clear silicone caulk in such a manner as to ensure a continuously filled seam throughout the joinery.

I. Cut and fit weatherstripping accurately to provide the greatest possible continuity of the contact element. Adjust closer templating as required.

J. At exterior doors, obtain satisfactory operation of the installation, then apply a thin layer of clear silicone caulk under hinge leaves, and outside lock trim. Remove excess caulk after torquing fasteners.

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.

1. Clean adjacent surfaces soiled by hardware installation.

B. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.4 INSTRUCTION AND INSPECTION

A. Instruct Owner's Personnel in proper adjustment and maintenance of hardware and hardware finishes, during the final adjustment of hardware.

B. After hardware is installed and adjusted, the Supplier shall inspect the job with the Architect and the Contractor to determine if the hardware is functioning properly.

1. Maintain the instruction sheets, layout templates, and any supplementary literature regarding hardware in a readable condition. Transmit all such items to the Owner's Representative, together with all spare parts, specialized tools, other accessories supplied with the hardware, and a copy of the approved hardware schedule at the time of instruction.

C. Continued Maintenance Service: Approximately six months after the acceptance of hardware in each area, the Installer, accompanied by the representative of the latch and lock manufacturer, shall return to the project and re-adjust every item of hardware to restore proper function 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 at no cost to the Owner. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware.

3.5 DOOR HARDWARE SCHEDULE

A. The hardware sets listed below represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process.

B. Hardware Sets

HARDWARE SET: 01
DOOR NUMBER:
A101A
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY EPT	710	IVE
2	EA	POWER TRANSFER	EPT10 CON	695	VON
1	EA	REMOVABLE MULLION	KR4954	695	VON
1	EA	ELEC PANIC HARDWARE	HD-RX-QEL-99-EO-CON 24 VDC	710	VON
1	EA	ELEC PANIC HARDWARE	HD-RX-QEL-99-NL-OP-110MD-CON 24 VDC	710	VON
1	EA	RIM HOUSING	20-079	613	SCH
1	EA	LFIC PERMANENT CORE	SUPPLIED BY OWNER		
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 10" O	695	IVE
2	EA	OH STOP	100S	695	GLY
1	EA	SURFACE CLOSER	4021	695	LCN
1	EA	SURF. AUTO OPERATOR	9542 MS AS REQ (120/240 VAC)	ANDKB	LCN
1	EA	MOUNTING PLATE	4020-18 SRT	695	LCN
2	EA	ACTUATOR, TOUCHLESS	8310-810S	630	LCN
1	EA	BOLLARD	B-6SQ-AT-DB-SM-SQ14	DBZ	WIK
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	39D	D	ZER
1	EA	THRESHOLD	655A-223	A	ZER
2	EA	WIRE HARNESS	CON-P (LENGTH AS REQ.) (EPT TO POWER SUPPLY)		SCH
2	EA	WIRE HARNESS	CON-LENGTH AS REQUIRED (PRODUCT TO EPT)		SCH
2	EA	DOOR POSITION SWITCH	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4RL 120/240 VAC	LGR	SCE
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		
	EA	CARD ACCESS	BY ACCESS CONTROL PROVIDER		

OPERATION: PANICS DOGGED (MADE PUSH/PULL) ELECTRONICALLY DURING BUSINESS HOURS. AFTER HOURS ACCESS VIA VALID CARD READ. OUTSIDE ACTUATOR ONLY OPERABLE WHEN DOOR IS DOGGED OR AFTER VALID CARD READ, INSIDE ACTUATOR ALWAYS OPERABLE. ALWAYS FREE EGRESS.

HARDWARE SET: 02
DOOR NUMBER:
A101B
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	710	IVE
2	EA	DUMMY PUSH BAR	330	710	VON
2	EA	90 DEG OFFSET PULL	8190EZHD 10" O	695	IVE
1	EA	OH STOP	100S	695	GLY
1	EA	SURFACE CLOSER	4021	695	LCN
1	EA	SURF. AUTO OPERATOR	9542 MS AS REQ (120/240 VAC)	ANDKB	LCN
1	EA	MOUNTING PLATE	4020-18 SRT	695	LCN
1	EA	ACTUATOR, TOUCHLESS	8310-810S	630	LCN

OPERATION: DOOR NORMALLY CLOSED AND UNLOCKED. PRESSING ACTUATOR OPENS DOOR. ALWAYS FREE EGRESS.
NOTE: AUTO OPERATOR SEQUENCED WITH EXTERIOR DOOR.

HARDWARE SET: 03
DOOR NUMBER:
A108G
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY EPT	710	IVE
1	EA	REMOVABLE MULLION	KR4954	695	VON
2	EA	PANIC HARDWARE	99-EO	710	VON
1	EA	MORTISE CYLINDER	26-094 36-083	626	SCH
1	EA	LFIC PERMANENT CORE	SUPPLIED BY OWNER		
2	EA	OH STOP	100S	695	GLY
2	EA	SURFACE CLOSER	4111 EDA	695	LCN
2	EA	MOUNTING PLATE	4110-18	695	LCN
2	EA	BLADE STOP SPACER	4110-61	695	LCN
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	39D	D	ZER
1	EA	THRESHOLD	655A-223	A	ZER
2	EA	DOOR POSITION SWITCH	679-05HM	BLK	SCE
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		

HARDWARE SET: 04
DOOR NUMBER:
A108C
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	710	IVE
2	EA	MANUAL FLUSH BOLT	FB458	613	IVE
1	EA	DUST PROOF STRIKE	DP1/DP2 AS REQ'D	626	IVE
1	EA	DBL CYL STORE W/DB	L9466L 03A	643E	SCH
1	EA	MORTISE CYLINDER	VERIFY TYPE REQUIRED	643E	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
2	EA	DOOR SWEEP	39D	D	ZER
1	EA	THRESHOLD	655A-V3-223	A	ZER
2	EA	DOOR POSITION SWITCH	679-05HM	BLK	SCE
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		

HARDWARE SET: 05
DOOR NUMBER:
A102B
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	710	IVE
2	EA	MANUAL FLUSH BOLT	FB458	613	IVE
1	EA	DUST PROOF STRIKE	DP1/DP2 AS REQ'D	626	IVE
1	EA	DBL CYL STORE W/DB	L9466L 03A	643E	SCH
1	EA	MORTISE CYLINDER	VERIFY TYPE REQUIRED	643E	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
2	EA	FLOOR STOP	FS436 (WHERE WALL STOP NOT COMPATIBLE)	626	IVE
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		

HARDWARE SET: 06
DOOR NUMBER:
A102A A126 B107.7 B112 B113
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	710	IVE
2	EA	PANIC HARDWARE	9947-L-LBR-03	710	VON
2	EA	RIM HOUSING	20-079	613	SCH
2	EA	LFIC PERMANENT CORE	SUPPLIED BY OWNER		
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
2	EA	SURFACE CLOSER	4111 SCUSH	695	LCN
2	EA	MOUNTING PLATE	4110-18	695	LCN
2	EA	CUSH SHOE SUPPORT	4110-30	695	LCN
2	EA	BLADE STOP SPACER	4110-61	695	LCN
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		

HARDWARE SET: 07
DOOR NUMBER:
B119
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY EPT	710	IVE
1	EA	POWER TRANSFER	EPT10 CON	695	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-QEL-99-NL-OP-110MD-CON 24 VDC	710	VON
1	EA	RIM HOUSING	20-079	613	SCH
1	EA	LFIC PERMANENT CORE	SUPPLIED BY OWNER		
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	695	IVE
1	EA	SURF. AUTO OPERATOR	9542 MS AS REQ (120/240 VAC)	ANDKB	LCN
2	EA	ACTUATOR, TOUCH	8310-818T	630	LCN
1	EA	DOOR SWEEP	39D	D	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	WIRE HARNESS	CON-P (LENGTH AS REQ.) (EPT TO POWER SUPPLY)		SCH
1	EA	WIRE HARNESS	CON-LENGTH AS REQUIRED (PRODUCT TO EPT)		SCH
1	EA	DOOR POSITION SWITCH	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		
	EA	CARD ACCESS	BY ACCESS CONTROL PROVIDER		

OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ACCESS VIA VALID CARD READ. PANICS MAY BE DOGGED (MADE PUSH/PULL) ELECTRONICALLY OR VIA HEX KEY. OUTSIDE ACTUATOR ONLY OPERABLE WHEN DOOR IS DOGGED OR AFTER VALID CARD READ, INSIDE ACTUATOR ALWAYS OPERABLE. ALWAYS FREE EGRESS.

HARDWARE SET: 08
DOOR NUMBER:
A108A A108E
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY EPT	710	IVE
2	EA	POWER TRANSFER	EPT10 CON	695	VON
1	EA	REMOVABLE MULLION	KR4954	695	VON
1	EA	ELEC PANIC HARDWARE	HD-RX-QEL-99-EO-CON 24 VDC	710	VON
1	EA	ELEC PANIC HARDWARE	HD-RX-QEL-99-NL-OP-110MD-CON 24 VDC	710	VON
1	EA	RIM HOUSING	20-079	613	SCH
1	EA	LFIC PERMANENT CORE	SUPPLIED BY OWNER		
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 10" O	695	IVE
2	EA	OH STOP	100S	695	GLY
2	EA	SURFACE CLOSER	4021	695	LCN
2	EA	MOUNTING PLATE	4020-18 SRT	695	LCN
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	39D	D	ZER
1	EA	THRESHOLD	655A-223	A	ZER
2	EA	WIRE HARNESS	CON-P (LENGTH AS REQ.) (EPT TO POWER SUPPLY)		SCH
2	EA	WIRE HARNESS	CON-LENGTH AS REQUIRED (PRODUCT TO EPT)		SCH
2	EA	DOOR POSITION SWITCH	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4RL 120/240 VAC	LGR	SCE
1	SET	WEATHERSTRIPPING	BY ALUMINUM FRAME MANUFACTURER		
	EA	CARD ACCESS	BY ACCESS CONTROL PROVIDER		

OPERATION: PANICS DOGGED (MADE PUSH/PULL) ELECTRONICALLY DURING BUSINESS HOURS. AFTER HOURS ACCESS VIA VALID CARD READ. ALWAYS FREE EGRESS.

HARDWARE SET: 09
DOOR NUMBER:
EB111B
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1	EA	PANIC HARDWARE	99-L-NL-03	626	VON
1	EA	LFIC RIM HOUSING	20-079	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4111 EDA	695	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	H.D. WALL STOP	WS443	626	IVE
1	SET	WEATHERSTRIPPING	429AA-S	AA	ZER
1	EA	SWEEP W/ DRIP EDGE	8197AA	AA	ZER
1	EA	THRESHOLD	655A-223	A	ZER
1	EA	DOOR POSITION SWITCH	679-05HM	BLK	SCE

HARDWARE SET: 10
DOOR NUMBER:
A125
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	710	IVE
1	EA	STOREROOM LOCK	L9080L 03A	643E	SCH
1	EA	MORTISE CYLINDER	VERIFY TYPE REQUIRED	643E	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4011	695	LCN
1	EA	WALL STOP	WS406/407CVX	630	IVE

HARDWARE SET: 11
DOOR NUMBER:
A116 B106
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	L9080L 03A	626	SCH
1	EA	MORTISE CYLINDER	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	TEMP CORE	23-030 ICX	ORG	SCH
1	EA	ELECTRIC STRIKE	6211 FSE CON 12/16/24/28 VAC/VDC	630	VON
1	EA	SURFACE CLOSER	4111 EDA (4111 CUSH AT A116)	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	MOTION SENSOR	SCANII 12/24 VDC	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
	EA	CARD ACCESS	BY ACCESS CONTROL PROVIDER		

OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ACCESS VIA VALID CARD READ. ALWAYS FREE EGRESS.

HARDWARE SET: 12
DOOR NUMBER:
A107 B105
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1HW 4.5 X 4.5 NRP (3EA AT 7' DOORS)	652	IVE
1	EA	PANIC HARDWARE	99-L-NL-03	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4111 EDA (4111 CUSH AT A107)	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HARDWARE SET: 13
DOOR NUMBER:
A206 A207 A118B B205
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	L9080L 03A	626	SCH
1	EA	LFIC MORT. CYL SHELL	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 14
DOOR NUMBER:
B107.1
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	FIRE EXIT HARDWARE	99-L-BE-F-03	626	VON
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	SMOKE SEAL	488SBK PSA	BK	ZER

HARDWARE SET: 15
DOOR NUMBER:
A118 A119B A120B A121 A122B B109
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1HW 4.5 X 4.5 NRP (3 EA AT DOORS UNDER 7'6")	652	IVE
1	EA	CLASSROOM LOCK	L9070L 03A	626	SCH
1	EA	LFIC MORT. CYL SHELL	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
1	EA	OH STOP & HOLDER	90F (OMIT AT B109)	630	GLY
1	EA	ARMOR PLATE	8400 34" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX (AT B109)	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 16
DOOR NUMBER:
A117 A119 A120 A122 B108 B117
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
8	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP1/DP2 AS REQ'D	626	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 03A 09-544	626	SCH
1	EA	LFIC MORT. CYL SHELL	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4011 (90 DEG. ACTIVE LEAF ONLY)	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CVX	630	IVE
1	SET	H.D. SOUND SEAL	870AA-S	AA	ZER
2	EA	AUTO DOOR BOTTOM	355AA	AA	ZER
2	EA	ACCOUSTIC ASTRAGAL	383AA	AA	ZER

HARDWARE SET: 17
DOOR NUMBER:
B103B
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 03A 09-544	626	SCH
1	EA	MORTISE CYLINDER	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 18
DOOR NUMBER:
B110 B111
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
8	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP1/DP2 AS REQ'D	626	IVE
1	EA	CLASSROOM LOCK	L9070L 03A	626	SCH
1	EA	LFIC MORT. CYL SHELL	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
2	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	4111 EDA ST-2730 (ACTIVE LEAF ONLY)	689	LCN
2	EA	ARMOR PLATE	8400 34" X 1" LDW B-CS	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 19
DOOR NUMBER:
B116 B206
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	710	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 03A 09-544	643E	SCH
1	EA	MORTISE CYLINDER	VERIFY TYPE REQUIRED	643E	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4011	695	LCN
1	EA	WALL STOP	WS406/407CVX	643E/716	IVE

HARDWARE SET: 20
DOOR NUMBER:
A203A A203B A203B
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	710	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 03A 09-544	643E	SCH
1	EA	MORTISE CYLINDER	VERIFY TYPE REQUIRED	643E	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	TEMP CORE	23-030 ICX	ORG	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	695	LCN
1	EA	MOUNTING PLATE	4110-18	695	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	695	LCN
1	EA	BLADE STOP SPACER	4110-61	695	LCN

HARDWARE SET: 21
DOOR NUMBER:
B118 B125
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP1/DP2 AS REQ'D	626	IVE
1	EA	STOREROOM LOCK	L9080L 03A	626	SCH
1	EA	LFIC MORT. CYL SHELL	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
2	EA	SURFACE CLOSER	4011 (ACTIVE LEAF AT B125)	689	LCN
2	EA	ARMOR PLATE	8400 34" X 1" LDW B-CS	630	IVE
1	EA	SECURITY ASTRAGAL	43SP	SP	ZER
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 22
DOOR NUMBER:
B212
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP1/DP2 AS REQ'D	626	IVE
1	EA	STOREROOM LOCK	L9080L 03A	626	SCH
1	EA	LFIC MORT. CYL SHELL	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CVX	630	IVE
1	SET	H.D. SOUND SEAL	870AA-S	AA	ZER
2	EA	DOOR BOTTOM	361AA	AA	ZER
1	EA	ACCOUSTIC ASTRAGAL	383AA	AA	ZER

HARDWARE SET: 23
DOOR NUMBER:
B208 B209 B210 B211
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 03A 09-544	626	SCH
1	EA	MORTISE CYLINDER	26-094 36-083	626	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	TEMP CORE	23-030 ICX	ORG	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 24
DOOR NUMBER:
A105 A115
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	710	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 03A 09-544	643E	SCH
1	EA	MORTISE CYLINDER	VERIFY TYPE REQUIRED	643E	SCH
1	EA	PERMANENT CORE	SUPPLIED BY OWNER	626	SCH
1	EA	LFIC TEMP CORE	23-030 ICX	ORG	SCH

HARDWARE SET: 25
DOOR NUMBER:
A111 A113 A114
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	PRIVACY W/DEADBOLT W/ OUTSIDE INDICATOR	L9440 03A 09-544 OS-OCC	630	SCH
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
1	EA	SOUND SEAL	188SBK PSA	BK	ZER

HARDWARE SET: 26
DOOR NUMBER:
A204 A205 B114 B115 B203 B204
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	PRIVACY W/DEADBOLT W/ OUTSIDE INDICATOR	L9440 03A 09-544 OS-OCC	626	SCH
1	EA	SURFACE CLOSER	4011 (4111 EDA AT A204, A205)	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
1	EA	SOUND SEAL	188SBK PSA	BK	ZER

HARDWARE SET: 27
DOOR NUMBER:
A108 A110 A112
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	PUSH PLATE	8200 6" X 16"	630	IVE
1	EA	PULL PLATE	8303 10" 4" X 16"	630	IVE
1	EA	SURFACE CLOSER	4111 EDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET: 28
DOOR NUMBER:

EA201	EA202	EA203	EB100	EB101	EB103A
EB112C	EB112D	EB113B	EB123		

EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR

ALL HARDWARE IS EXISTING - NO NEW WORK

HARDWARE SET: 29
DOOR NUMBER:

A106D	A108F	A121.1	A125.1	A203C	A203D
B125.1					

EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR

HARDWARE BY DOOR MANUFACTURER

HARDWARE SET: 30
DOOR NUMBER:

EB102B	EB102C	EB102D	EB102E	EB102F	EB103C
EB111C	EB112A	EB112B	EB112E	EB112F	EB113A
EB113C	EB113D				

EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR

ALL HARDWARE IS EXISTING - NO CHANGE REQUIRED

END OF SECTION 087100