

ADDENDUM THREE

Addendum Three (AD.03) to the drawings and specifications prepared by Gibraltar Design for **Eastern Greene Early Learning Center Renovations** for Eastern Greene Schools Bloomfield, Indiana

All Contractors bidding on this project shall read all of the items covered below and shall comply with all of the requirements as set forth, including any necessary refinements or additions generated by this Addendum and required by the intent of the original contract documents. All Contractors shall acknowledge on their bid form that they have received this Addendum and include the appropriate content of same within their bid proposal.

CLARIFICATIONS

1. Please provide a specialties schedule in the drawings.
A. We do not understand the request for specialties schedule.
2. Please provide a cut through showing the detailed masonry demo and window/door put back.
A. See Sheet AD101, Demolition Plan Note #D27
3. Front end hardware specs say that the locks are to be Schlage no sub, but the hardware sets are written in Oak hardware. Which is correct?
A. See Addendum #3.
4. Is there any information on what kind of permanent cores are required (SFIC, LFIC, etc)?
A. See Addendum #3.
5. Front end specs don't mention butt hinges. Please indicate if Stanley hinges would be accepted in lieu of Ives?
A. See Addendum #3.
6. Hardware set 07 calls for a WR9852L panic device from Von Duprin; there is no WR designation for their exit devices. Please indicate the meaning of WR
A. See Addendum #3.
7. Please provide contacts for the preferred manufacturers for aluminum railings
A. Contractor is responsible to contact manufacturers for information and pricing.
8. Please provide a location where we can place a dumpster.
A. See Addendum #3.



SPECIFICATIONS

1. Specification Section 08 71 00**Door Hardware**

- A. Replace the specification section 08 71 00 Door Hardware, with the revised specification section included in this Addendum, to the project manual.

2. Specification Section 12 32 16**Plastic Laminate Casework**

- A. P.R. Bean, Washington, Indiana, is hereby approved to bid plastic laminate casework for this project. All requirements of the Drawings and Specifications shall be met, including the color selections.

DRAWINGS

1. Sheet C-120

- A. Refer to revised, full-size drawing, included in this Addendum, for revisions.

2. Sheet A-101

- A. Refer to revised, full-size drawing, included in this Addendum, for revisions.

3. Sheet A-601

- A. Refer to revised, full-size drawing, included in this Addendum, for revisions.

Pages 1 through 2, inclusive, Clarifications, Specification Section 08 71 00, and three (3) Full-Size Drawings, constitute the total makeup of **Addendum Three**.

**GIBRALTAR**

DESIGN

Y:\25-154 Eastern Greene - Central Campus Early Learning Center Renovations\Specs\AD03\AD03.doc

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware
2. Electronic access control system components

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 "General Requirements" sections for Allowances, Alternates, Owner Furnished Contractor Installed, Project Management and Coordination.
2. Division 06 Section "Rough Carpentry"
3. Division 06 Section "Finish Carpentry"
4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Stile and Rail Wood Doors"
 - d. "Interior Aluminum Doors and Frames"
 - e. "Aluminum-Framed Entrances and Storefronts"
 - f. "Stainless Steel Doors and Frames"
 - g. "Special Function Doors"
 - h. "Entrances"
6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS**A. General:**

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.

- a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
- 4. Door Hardware Schedule:
 - a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
 - b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
- 5. Key Schedule:
 - a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
 - d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 - f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
- C. Informational Submittals:
 - 1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
 - 2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.
- D. Closeout Submittals:
 - 1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:

- a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
- b. Catalog pages for each product.
- c. Final approved hardware schedule edited to reflect conditions as installed.
- d. Final keying schedule
- e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
- f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.

- b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- 2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
- 3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- 4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

- 1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
- 2. Pre-installation Conference
 - a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
- 3. Electrified Hardware Coordination Conference:
 - a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping

- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage ND Series: 10 years
 - 2) Exit Devices
 - a) Von Duprin: 10 years
 - 3) Closers
 - a) LCN 4000 Series: 30 years
 - 4) Automatic Operators
 - a) LCN: 2 years
 - b. Electrical Warranty
 - 1) Exit Devices

a) Von Duprin: 3 years

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.
- B. Approval of alternate manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category are only to be considered by official substitution request in accordance with section 01 25 00.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

- A. Fabrication
 - 1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
 - 2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 - 3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

- B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
 - 1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.
- C. Cable and Connectors:
 - 1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
 - 2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
 - 3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 HINGES

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series
 - 2. Acceptable Manufacturers and Products:
 - a. Hager BB1191/1279 series
 - b. McKinney TB series
 - c. Best FBB series
- B. Requirements:
 - 1. Provide hinges conforming to ANSI/BHMA A156.1.
 - 2. Provide five knuckle, ball bearing hinges.
 - 3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
 - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
 - 4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
 - 5. 2 inches or thicker doors:
 - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
 - 6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
 - 7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
 - 8. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins

9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.04 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Best
 - b. ABH

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.05 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin EPT-10
2. Acceptable Manufacturers and Products:
 - a. ABH PT1000
 - b. Securitron CEPT-10

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough 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.

2.06 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage ND series
2. Acceptable Manufacturers and Products:
 - a. Sargent 11-Line
 - b. Corbin-Russwin CL3100 series

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Indicators: Where specified, provide escutcheon with lock status indicator window on top of lockset rose:
 - a. Escutcheon height (including rose) 6.05 inches high by 3.68 inches wide.
 - b. Indicator window measuring a minimum 3.52-inch by .60 inch with 1.92 square-inches of front facing viewing area and 180-degree visibility with a total of .236 square-inches of total viewable area.
 - c. Provide snap-in serviceable window to prevent tampering. Lock must function if indicator is compromised.
 - d. Provide messages color-coded with full text and symbol, as scheduled, for easy visibility.
 - e. Unlocked and Unoccupied message will display on white background, and Locked and Occupied message will display on red background.
3. Cylinders: Refer to "KEYING" article, herein.
4. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
5. Provide locksets with separate 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. Provide electrified options as scheduled in the hardware sets.
9. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Vandlgard: Provide levers with vandal resistant technology for use at heavy traffic or abusive applications.
 - b. Lever Design: RHO

2.07 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 98/35A series
2. Acceptable Manufacturers and Products:
 - a. Precision APEX 2000 series
 - b. Sargent 19-43-GL-80 series
 - c. Von Duprin 78/75A series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide smooth touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
7. Provide flush end caps for exit devices.
8. Provide exit devices with manufacturer's approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. 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.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
16. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.08 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage/Von Duprin PS900 Series
2. Acceptable Manufacturers and Products:
 - a. Precision ELR series
 - b. Sargent 3500 series
 - c. Securitron BPS series
 - d. Security Door Controls 600 series

B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
 - a. 12/24 VDC Output, field selectable.

- b. Class 2 Rated power limited output.
- c. Universal 120-240 VAC input.
- d. Low voltage DC, regulated and filtered.
- e. Polarized connector for distribution boards.
- f. Fused primary input.
- g. AC input and DC output monitoring circuit w/LED indicators.
- h. Cover mounted AC Input indication.
- i. Tested and certified to meet UL294.
- j. NEMA 1 enclosure.
- k. Hinged cover w/lock down screws.
- l. High voltage protective cover.

2.09 CYLINDERS

A. Manufacturers:

- 1. Scheduled Manufacturer and Product:
 - a. Field verify and match existing
- 2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

- 1. Provide cylinders/cores to match Owner's existing key system, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.

2.10 KEYING

A. Scheduled System:

- 1. Existing non-factory registered system:
 - a. Provide cylinders/cores keyed into Owner's existing keying system managed by Owner's locksmith, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:

- 1. Permanent Keying:
 - a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - 1) Master Keying system as directed by the Owner.
 - b. Forward biting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
 - c. Provide keys with the following features:
 - 1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
 - d. Identification:
 - 1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
 - 2) Identification stamping provisions must be approved by the Architect and Owner.

- 3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE".
- 4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
- 5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
- e. Quantity: Furnish in the following quantities.
 - 1) Permanent Control Keys: 3.
 - 2) Master Keys: 6.
 - 3) Change (Day) Keys: 3 per cylinder/core that is keyed differently
 - 4) Key Blanks: Quantity as determined in the keying meeting.

2.11 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. LCN 4040XP series
2. Acceptable Manufacturers and Products:
 - a. Corbin-Russwin DC8000 series
 - b. Sargent 281 series

B. Requirements:

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. Cylinder Body: 1-1/2-inch (38 mm) diameter piston with 5/8-inch (16 mm) diameter double heat-treated pinion journal. QR code with a direct link to maintenance instructions.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards. Provide snap-on cover clip, with plastic covers, that secures cover to spring tube.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck. Provide graphically labelled instructions on the closer body adjacent to each adjustment valve. Provide positive stop on reg valve that prevents reg screw from being backed out.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. 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.
11. Closers shall be capable of being upgraded by adding modular mechanical or electronic components in the field.

2.12 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. LCN 4600 series
2. Acceptable Manufacturers and Products:
 - a. Precision D4990 series
 - b. Besam Power Swing

B. Requirements:

1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
2. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
5. Provide drop plates, brackets, and adapters for arms as required for details.
6. Provide actuator switches and receivers for operation as specified.
7. Provide weather-resistant actuators at exterior applications.
8. Provide key switches with LED's, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to "KEYING" article, herein.
9. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. 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.
10. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.13 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.14 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.15 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

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

A. Manufacturers:

B. Scheduled Manufacturer:

1. Zero International

C. Acceptable Manufacturers:

1. National Guard
2. Pemko

- D. Seals and Gasketing: Provide continuous gasketing on exterior openings, to the head and jambs, forming a continuous seal between the door and the frame. Provide smoke, light, or sound gasketing on interior doors where indicated.
 - 1. Provide self-tapping fasteners for aluminum extruded gasketing being applied to hollow metal frames.
 - a. Provide non-corrosive fasteners for all exterior applications.
 - b. Provide security fasteners where indicated.
 - 2. Provide neoprene, EPDM, silicone, or nylon brush inserts as specified in hardware sets. Provide non brush inserts of solid or sponge cell, as specified in hardware sets. Vinyl inserts are not allowed except where specified in hardware sets.
- E. Smoke Labeled Gasketing: At all smoke labeled openings, provide smoke listed perimeter gasketing assemblies complying with NFPA 105 listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for smoke control ratings indicated based on testing according to UL 1784.
- F. Fire Listed Gasketing: Assemblies complying with NFPA 80 that are listed by a testing and inspecting agency acceptable to authorities having jurisdiction for fire ratings indicated based on testing according to UL-10C.
 - 1. Where frame-applied intumescent seals are required by the manufacturer, provide gaskets that comply with UL10C Standard for Positive Pressure Fire Tests of Door Assemblies and UBC 7-2, Fire Tests of Door Assemblies.
- G. Sound-Rated Gasketing: Provide acoustic gasketing to meet Sound Transmission Class (STC) rating required.
- H. Meeting-Stile Gasketing: Provide meeting-stile gasketing that fastens to the meeting stiles forming a continuous seal when doors are closed.
- I. Door Sweeps or Shoes: Apply to the bottom of the door to close the gap between the door bottom and finished floor or saddle threshold.
 - 1. Provide solid neoprene, EPDM, silicone, or nylon brush type of seal as specified in hardware sets. Vinyl inserts are not allowed except where specified in hardware sets.
- J. Automatic Door Bottoms:
 - 1. Provide closed cell sponge, bulb neoprene. or EPDM type of seal as specified in hardware sets.
 - 2. Door bottom to be mortised, semi mortised, or surface mount as with a minimum thickness as specified in hardware sets.
- K. Rain Drips:
 - 1. Provide overhead rain drips for out-swinging hollow metal doors that are not covered against 45 degree blowing rain. Aluminum extrusion to be a minimum of .088 inches thick and extend 2.50 inches from the face of the frame, in anodized finish to match door.
 - 2. Door sweeps or shoes with integral rain drip must meet ADA requirements
- L. Thresholds: Provide threshold units not less than 4 inches wide, formed to accommodate change in floor elevation where indicated, and fabricated to accommodate door hardware and fit door frames.

1. Threshold extrusion to be a minimum thickness as specified in hardware sets.

2.17 FINISHES

A. FINISH: BHMA 626/652 (US26D); EXCEPT:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
4. Protection Plates: BHMA 630 (US32D)
5. Overhead Stops and Holders: BHMA 630 (US32D)
6. Door Closers: Powder Coat to Match
7. Wall Stops: BHMA 630 (US32D)
8. Latch Protectors: BHMA 630 (US32D)
9. Weatherstripping: Clear Anodized Aluminum
10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 2. Custom Steel Doors and Frames: HMMA 831.
 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.

- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce 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 according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.
- J. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- K. Continuous Hinges: Re-locate the door and frame fire rating labels where they will remain visible so that the hinge does not cover the label once installed.
- L. Door Closers & Auto Operators: Mount closers/operators on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers/operators so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- M. Overhead Stops/Holders: Mount overhead stops/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- O. Thresholds:
 - 1. Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
 - 2. Aluminum thresholds to be cut-in, and scribed around mullions, frame members, and stops. Do not butt to thresholds. Provide a continuous surface across full width of opening from jamb to jamb.
 - 3. Where aluminum panic-type (rabbeted) thresholds with neoprene inserts are specified, undercut doors as required to properly mate with seal in threshold.

- P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- Q. Perimeter Gasketing:
 - 1. Apply to head and jamb, forming seal between door and frame.
 - 2. Install gasketing in a manner eliminating need to cut any seal to install surface mounted hardware. Install compatible mounting bracket for surface mounted hardware unless minimum 1/4 inch thick solid aluminum seals are provided for mounting of surface applied hardware.
- R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- S. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- D. Hardware Sets:

141751 X-127563 Version 1

Hardware Group No. 01

A50 A51 A57 A58

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	630	IVE
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	ND40S RHO OS-OCC	626	SCH
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE

Hardware Group No. 02

A52A A52B A59A A59B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	CLASSROOM LOCK	ND70P6D RHO	626	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE

Hardware Group No. 03

A40A A42A A44 A46 A47 A49

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CLASSROOM LOCK	ND70P6D RHO	626	SCH

NOTE: PROVIDE ANY AND ALL PLATES REQUIRED TO COVER/BLANK EXISTING UNUSED DOOR AND FRAME PREPS. PROVIDE RIV-NUT TYPE FASTENERS WHERE PROPER REINFORCEMENT IN THE FRAME IS NOT PRESENT. FIELD VERIFY ALL EXISTING OPENINGS TO CONFIRM FUNCTIONALITY OF NEW HARDWARE ITEMS. FIELD VERIFY EXISTING CONDITIONS FOR INSTALLATION OF NEW HARDWARE ON EXISTING FIRE RATED OPENING PRIOR TO BIDDING OR ORDERING MATERIAL.

NOTE: BALANCE OF HARDWARE IS EXISTING TO REMAIN.

Hardware Group No. 04

A40B

A42B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	CDSI-98-NL-OP-110MD	626	VON
1	EA	MORTISE CYLINDER	20-001 X XQ11-949 36-083	626	SCH
1	EA	RIM CYLINDER	20-022	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURFACE CLOSER	4040XP SHCUSH	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		B/O
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	625A-V3-223	A	ZER

Hardware Group No. 05

A56A

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	CONT. HINGE	112XY EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
1	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	ELEC PANIC HARDWARE	QEL-98-NL-OP-110MD 24 VDC	626	VON
1	EA	MULLION STORAGE KIT	MT54	689	VON
2	EA	MORTISE CYLINDER	20-001 X XQ11-949 36-083	626	SCH
1	EA	RIM CYLINDER	20-022	626	SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURFACE CLOSER	4040XP SHCUSH	689	LCN
1	EA	SURF. AUTO OPERATOR	4642 CS WMS 120 VAC	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	WEATHER RING	8310-801 OUTSIDE	PLA	LCN
1	EA	SWITCH	8310-806R		LCN
1	EA	ACTUATOR, TOUCH	8310-853T OUTSIDE	630	LCN
1	EA	DUAL ACTUATOR	8310-855 INSIDE VESTIBULE	630	LCN
1	EA	MOUNT BOX	8310-867S OUTSIDE		LCN
1	EA	MULLION SEAL LAR	8780NBK XX' PSA	BK	ZER
1	EA	WEATHER STRIPPING	BY DOOR/FRAME MANUFACTURER		B/O
2	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	625A-V3-223	A	ZER
1	EA	CREDENTIAL READER	RE-USE EXISTING CREDENTIAL READER		EXI
1	EA	POWER SUPPLY	PS902 900-4RL 120/240 VAC		VON

NOTE: PROVIDE SURFACE MOUNT BOX AS REQUIRED FOR ACTUATOR INSIDE VESTIBULE AS REQUIRED.

CREDENTIAL READER DEVICE OR SCHEDULE VIA ACCESS CONTROL SYSTEM IS TO RETRACT LATCH AND ENABLE PULL SIDE ACTUATOR ALLOWING MANUAL OR AUTOMATIC INGRESS. IMMEDIATE MANUAL EGRESS IS ALWAYS AVAILABLE. PUSH SIDE ACTUATOR ALWAYS ENABLED. KEYED INGRESS IS ALSO AVAILABLE.

POWER FOR THE AUTO OPERATOR BY THE ELECTRICAL CONTRACTOR.

ITEMS TO BE PROVIDED BY THE DIVISION 28 SUPPLIER:
REQUIRED WIRING TO THE PS902 POWER SUPPLY (WHICH POWERS THE QEL ELECTRIC LATCH RETRACTION FEATURE INSIDE THE PANIC HARDWARE), THE QEL ELECTRIC LATCH RETRACTION FEATURE INSIDE THE PANIC HARDWARE ITSELF.

DOOR HARDWARE

087100-23
10/21/2025

Hardware Group No. 06

A56B

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	628	IVE
2	EA	DUMMY PUSH BAR	350	626	VON
2	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURFACE CLOSER	4040XP SHCUSH	689	LCN
1	EA	SURF. AUTO OPERATOR	4642 CS WMS 120 VAC	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	SWITCH	8310-806R		LCN
1	EA	ACTUATOR, TOUCH	8310-818T	630	LCN
			PUSH SIDE - JAMB MOUNTED		
1	EA	DUAL ACTUATOR - PULL SIDE	IN SET FOR A56A		
1	EA	POWER SUPPLY	PS902 900-4RL 120/240 VAC		VON

NOTE: PROVIDE SURFACE MOUNT BOX AS REQUIRED FOR ACTUATOR INSIDE VESTIBULE AS REQUIRED.

BOTH ACTUATORS ALWAYS ENABLED.

POWER FOR THE AUTO OPERATOR BY THE ELECTRICAL CONTRACTOR.

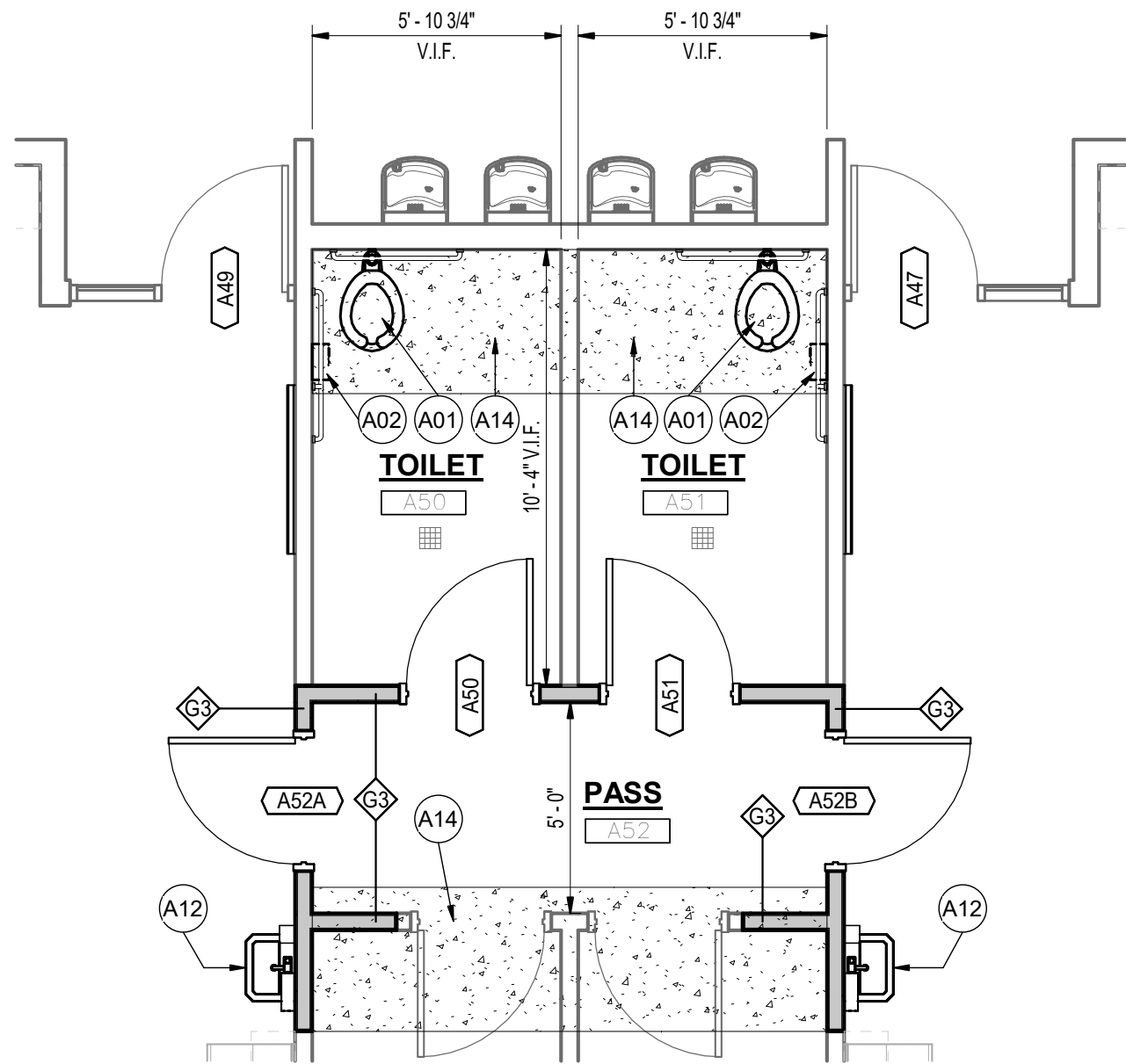
Hardware Group No. 07

GATE

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	GATE HINGE	SURE CLOSE AS REQUIRED		DDT
1	EA	PANIC HARDWARE	LD-WR9852-L-06-WH	626	VON
1	EA	MORTISE CYLINDER	20-001 X L583-477 114 XQ11-949 36-083	626	SCH
1	EA	GATE BOX	FOR VON 9852 L AS REQUIRED		KEE

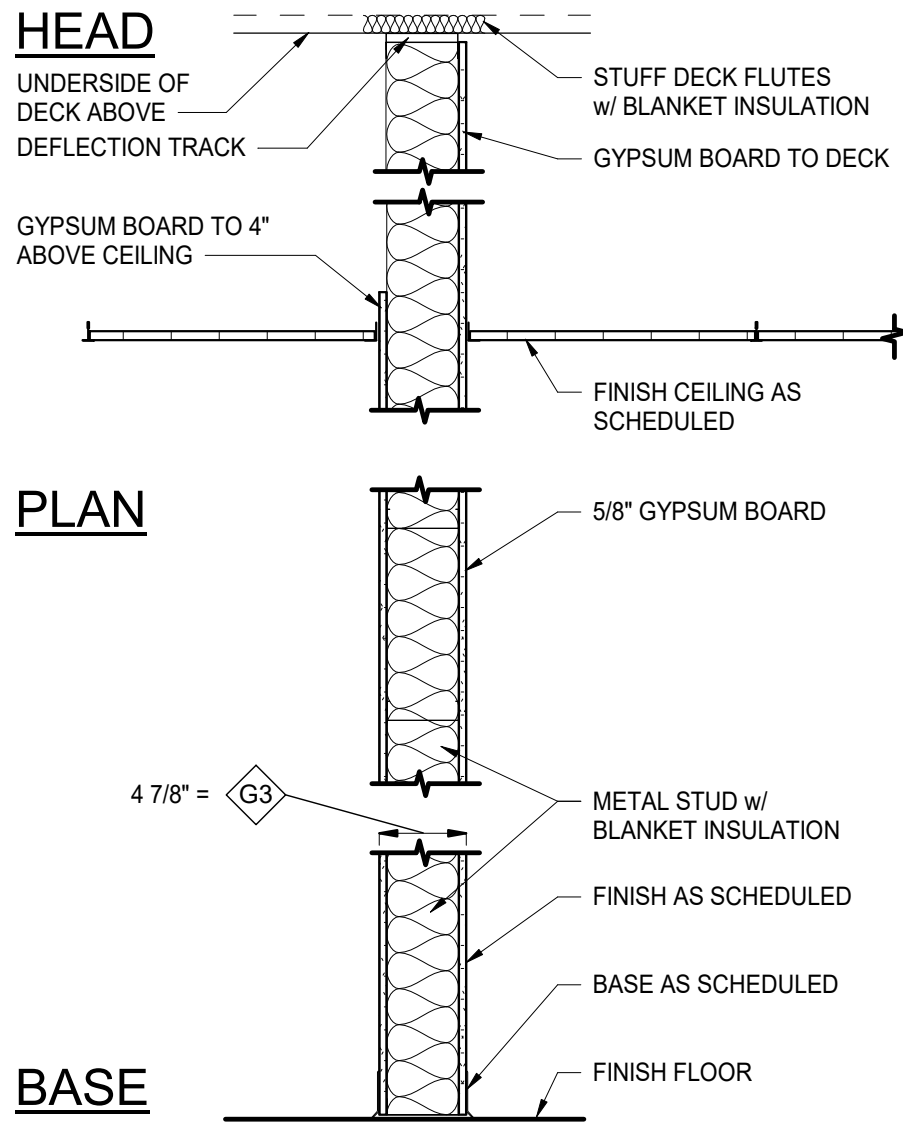
END OF SECTION



TYPICAL ENLARGED RESTROOM PLAN
2
A-101
1/4\"/>

WALL PARTITION NOTES

- REFER TO LIFE SAFETY PLANS FOR RATED WALL LOCATIONS THAT EXTEND TO DECK ABOVE.
- ALL METAL STUD AND GYPSUM BOARD WALLS ARE TYPE "G3".
- PARTITION SYMBOLS APPEAR ON LARGEST SCALE FLOOR PLAN PROVIDED FOR AREA.
- REFER TO FINISH PLANS FOR WALL FINISH AND BASE INFORMATION.
- PROVIDE MOLDMOISTURE RESISTANT GYPSUM BOARD ON WALLS WITH OPERABLE PLUMBING FIXTURES AND WITHIN 4 FEET OF DRINKING FOUNTAINSWATER COOLERS UNLESS NOTED OTHERWISE.
- ALL WALLS THAT ARE NOT INDICATED TO EXTEND TO THE UNDERSIDE OF DECK ABOVE SHELL EXTEND TO 4" MINIMUM ABOVE FINISHED CEILING UNLESS NOTED OTHERWISE.
- PROVIDE LATERAL BRACING FOR PARTITIONS WHICH EXTEND ABOVE CEILING.
- PROVIDE SPECIFIED TILE BACKER BOARD AT ALL WALLS SCHEDULED TO RECEIVE CERAMIC, LARGE FORMAT, OR PORCELAIN TILE.
- PROVIDE ABUSE RESISTANT GYPSUM BOARD WHERE INDICATED ON DRAWINGS AND IN ALL CORRIDORS, COMMONS, PASSAGES, AND VESTIBULE INDICATED TO RECEIVE GYPSUM BOARD.
- STEEL STUD FRAMING SHALL BE ATTACHED/BRACED TO STRUCTURAL FRAMING AND NOT TO ROOF DECK, UNLESS NOTED OTHERWISE.
- ISOLATE NON-LOAD-BEARING STUD FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF VERTICAL LOADS WHILE PROVIDING LATERAL SUPPORT AS SPECIFIED.
- PACK DECK FLUTE VOIDS AT NON-RATED WALLS WITH MINERAL WOOL. FILL DECK FLUTE VOIDS AT RATED WALLS WITH FIRESTOPPING. REFER TO PROJECT MANUAL.
- PROVIDE FIRE RESISTIVE RATED GYPSUM WALL BOARD AT ALL RATED ASSEMBLIES TO MEET ASSEMBLY REQUIREMENTS.
- PROVIDE FIRE RESISTIVE JOINT SYSTEMS EQUAL TO WALL RATING AT ALL PENETRATIONS AND AT HEAD/FLOOR INTERSECTIONS WITH RATED ASSEMBLIES.
- PROVIDE ACOUSTICAL INSULATION AT INTERIOR WALLS NOTED TO RECEIVE BLANKET INSULATION.
- STUD SPACING 16" O.C. UNLESS NOTED OTHERWISE.
- PROVIDE CONTROL JOINTS AS INDICATED IN SPECIFICATIONS.
- WHERE METAL STUD WALLS ARE ADJACENT (WITHIN 4") OF CMU WALLS, THEY MAY BE ANCHORED TO ADJACENT CMU IN LEIU OF EXTENDING TO UNDERSIDE OF DECK, UNLESS NOTED OTHERWISE.



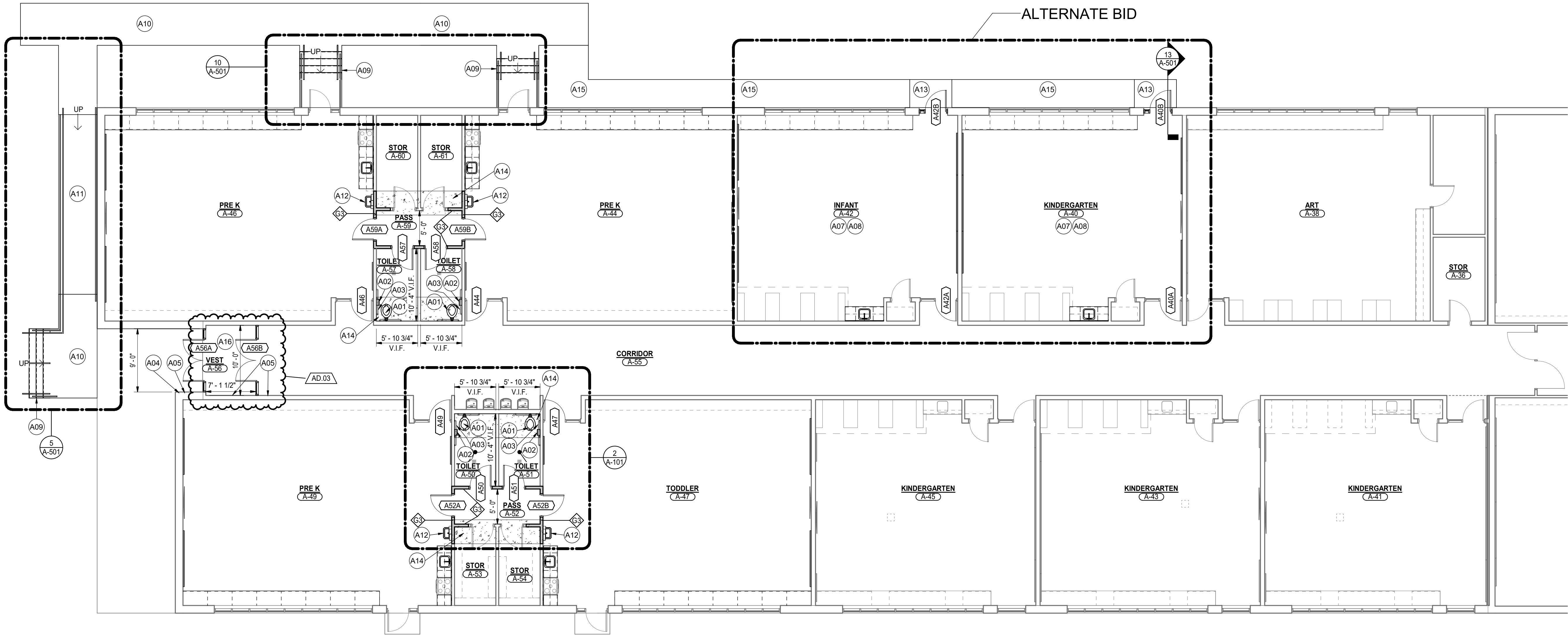
PARTITION TYPE "G"

GENERAL PLAN NOTES:

- FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO G-SERIES SHEETS.
- PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.
- ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
- MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.
- THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
- HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
- PROVIDE FIRE TREATED WOOD BLOCKING (OR METAL STRAPPING WHERE INDICATED) WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
- REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.
- INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.
- WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.
- REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.
- ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.
- PROVIDE SEALANT BETWEEN DISSIMILAR MATERIALS SUCH AS GYPSUM BOARD, MASONRY AND CONCRETE, COUNTERTOPS AND WALLS, ETC.
- REFER TO FINISH PLANS FOR INTERIOR ELEVATIONS, LOCATION, AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL.
- REFER TO EQUIPMENT PLANS FOR CASEWORK, DISPLAY BOARDS, LOCKERS, AND OTHER ADDITIONAL TYPICAL EQUIPMENT NOTES AND INFORMATION.

ARCHITECTURAL PLAN NOTES

- A01 ACCESSIBLE FACILITIES. REFER TO SHEET A501.
A02 TOILET PAPER HOLDER. (OFC)
A03 NOT USED.
A04 EXISTING CARD READER. REFER TO ELECTRICAL SHEETS.
A05 PUSH PAD FOR ADA OPERATOR. REFER TO ELECTRICAL SHEETS.
A07 ALTERNATE, NEW CASEWORK IN THIS ROOM ONLY.
A08 ALTERNATE, NEW TACKBOARDS IN THIS ROOM ONLY.
A09 CONCRETE STAIR WITH HANDRAILS. REFER TO SHEET A501.
A10 CONCRETE SIDEWALK. REFER TO CIVIL.
A11 CONCRETE RAMP WITH HANDRAILS. REFER TO DETAIL 7/A501.
A12 REINSTALL EXISTING PLUMBING FIXTURE.
A13 ALTERNATE, NEW CONCRETE STOOP. REFER TO CIVIL.
A14 PROVIDE CONCRETE PATCH FOR NEW PLUMBING. REFER TO DETAIL 12/A-501.
A15 ALTERNATE, PROVIDE NEW CONCRETE SIDEWALK. REFER TO CIVIL.
A16 FILL IN RECESSED FLOOR FINISH WITH ARDEX. PREP TO RECEIVE NEW FLOOR FINISH. NEW FINISH TO BE FLUSH WITH EXISTING.



UNIT "A" FIRST FLOOR UNIT PLAN
1
A-101
1/8\"/>



GIBRALTAR

DESIGN

ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT:

**CENTRAL
CAMPUS EARLY
LEARNING
CENTER
RENOVATIONS**

EASTERN GREENE SCHOOLS

10503 E STATE RD 54
BLOOMFIELD, IN 47424



KEY PLAN

CONSTRUCTION DOCUMENTS

GIBRALTAR DESIGN

9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT

25-154

DATE

09/08/25

COORDINATED BY

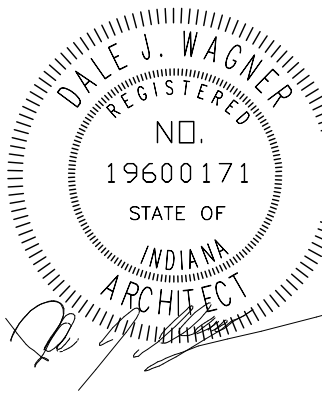
DJW

DRAWN BY

JLM

CHECKED BY

BCB



COPYRIGHT NOTICE:

THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC., SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS

MARK	DATE	ISSUED FOR
AD 03	10/24/25	ADDENDUM 03

DRAWING
UNIT "A" ARCHITECTURAL
FIRST FLOOR PLAN

PROJECT
CENTRAL CAMPUS EARLY
LEARNING CENTER RENOVATIONS

© GIBRALTAR
DESIGN

SHEET

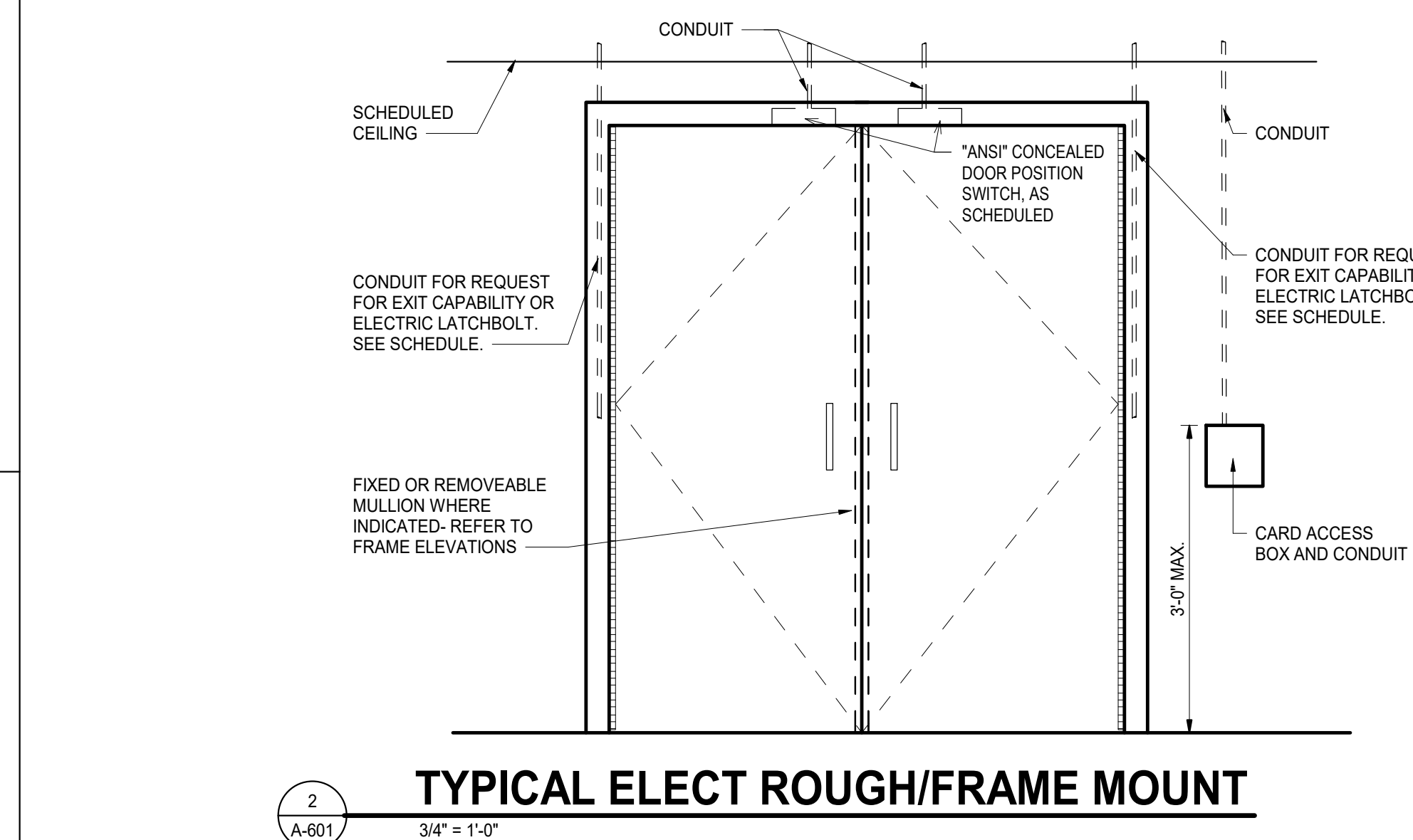
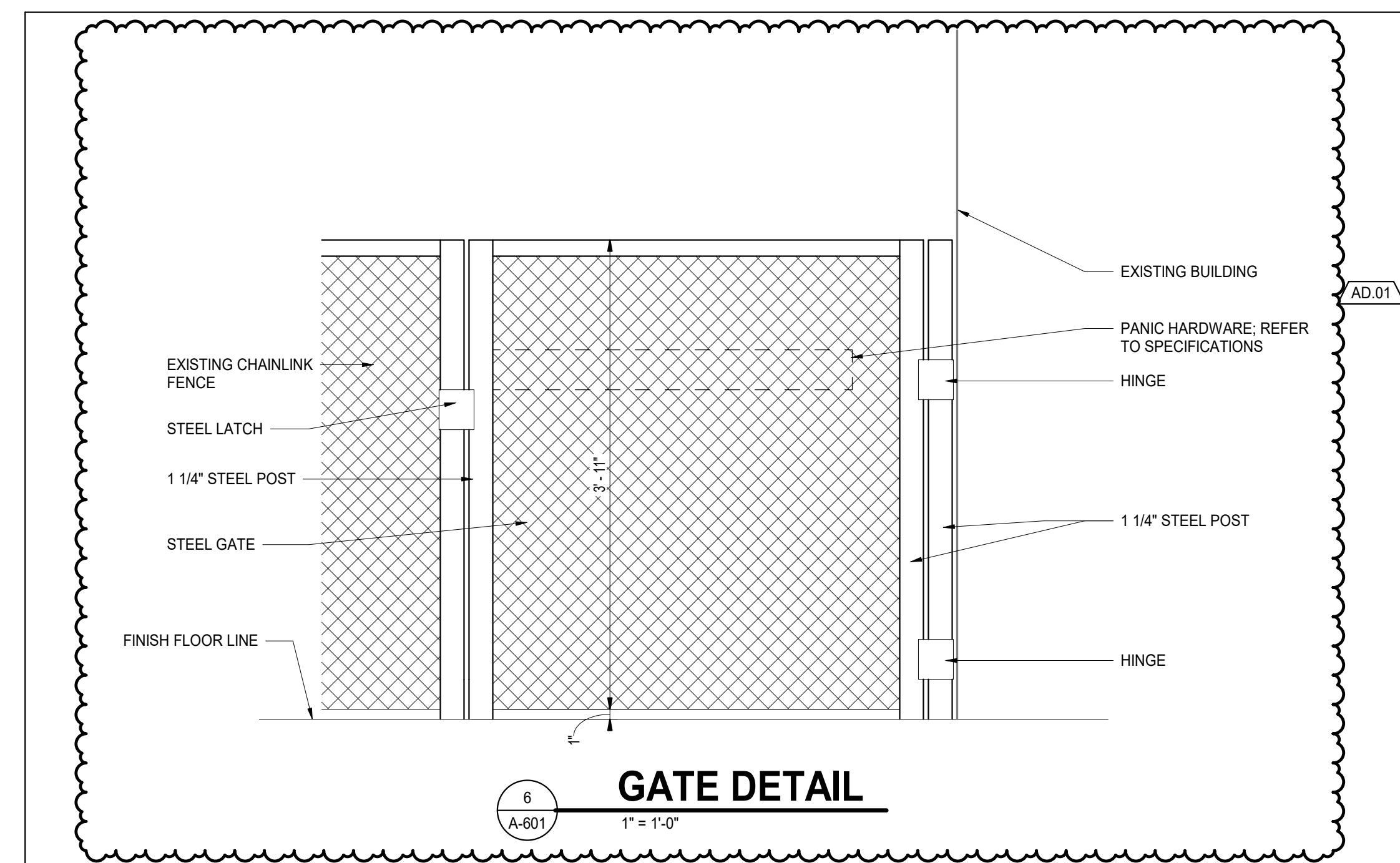
A

A-101

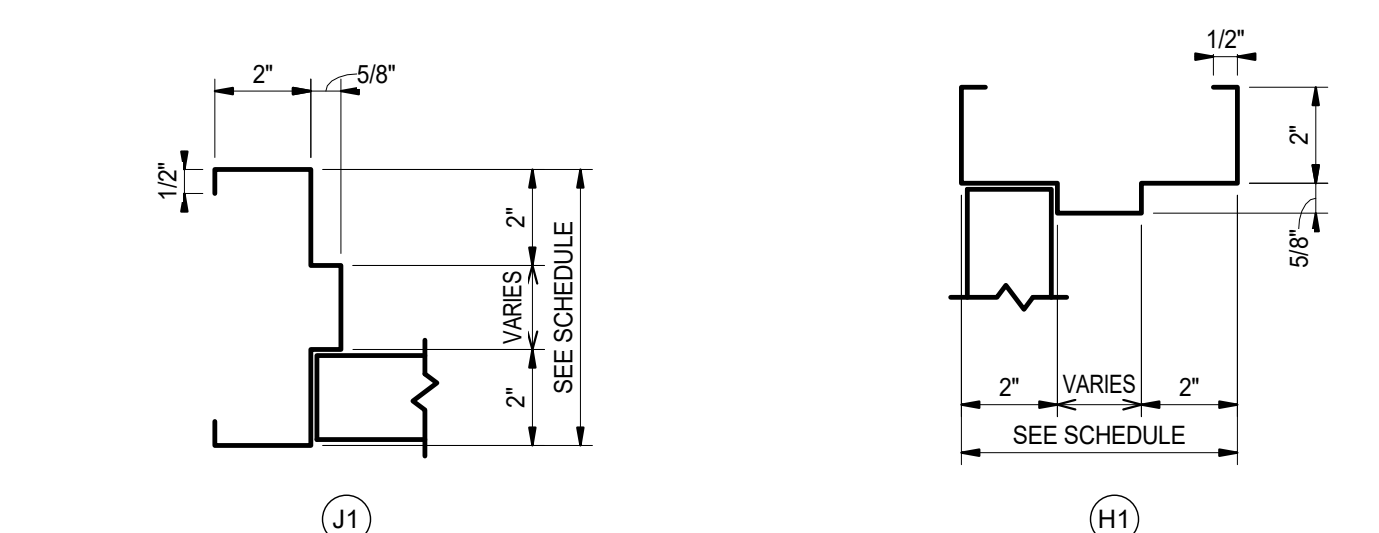
A.	JAMB, HEAD, AND SILL DO NOT SHOW WALL CONSTRUCTION. SEE FLOOR PLAN FOR WALL MATERIALS. SEE A-800 SERIES DRAWINGS FOR FINISHES.
B.	SEAL ALL JAMBS AND HEADS WHERE FRAMES MEET EXPOSED MASONRY AND/OR GYPSUM BOARD.
C.	PROVIDE A 3/4"x3/4" SCRIBE MOLD AT ALL EXTERIOR DOOR DAMS AND WHERE NOTED ON DRAWINGS. METAL AT EXTERIOR OF METAL FRAMES AND AT BOTH SIDES OF ALUMINUM FRAMES. SET SCRIBE MOLDS IN SEALANT.
D.	FIELD GLAZING AND GLASS STOPS AS REQUIRED.
E.	FIELD VERIFY ALL DIMENSIONS AND CONDITIONS.
F.	SHIM SPACE IS NOT SHOWN ON FRAME ELEVATIONS FOR ALUMINUM STOREFRONT. TAKE THESE DIMENSIONS INTO ACCOUNT AND ADJUST DIMENSIONS ACCORDINGLY.
G.	FOR DOOR POSITION WITHIN WALL REFER TO FRAME MOUNTING DETAILS
H.	FOR ELECTRIC ROUGH-IN AT DOORS REFER TO DETAIL
I.	GLASS NOTED IN DOOR COLUMN FOR BORROWED LIGHT FRAMES APPLIES TO ALL OPENINGS IN FRAME, UNLESS NOTED OTHERWISE. REFER TO FRAME ELEVATIONS.
J.	REFER TO FLOOR PLANS FOR LOCATIONS OF ADA PUSH PADS FOR POWER ASSISTED OPERATORS
K.	WHERE FRAMES INDICATE 2 OR MORE OPENINGS FOR DOORS, EACH SINGLE OR PAIR OF DOORS IS SCHEDULED SEPARATELY AND FRAME INDICATED.
L.	REFER TO FRAME ELEVATIONS FOR HEAD, JAMB, AND SILL DETAILS.

2. REUSE EXISTING FRAME AND DOOR. REMOVE DOOR LEAF. REMOVE ALL HARDWARE FROM EXISTING DOOR LEAF. SAND ENTIRE DOOR LEAF. TOUCH-UP ANY DISCOLORATION WITH MATCHING STAIN. INSTALL NEW FINISH. REINSTALL EXISTING REFINISHED DOOR LEAF WITH NEW HARDWARE.
2. ALTERNATE. PROVIDE NEW STOREROFF ENTRANCE.
3. COORDINATE NEW DOOR FRAME HEAD HEIGHT OF NEW EXTERIOR DOOR OPENING WITH EXISTING WINDOW HEAD HEIGHT.
4. ALTERNATE. REUSE EXISTING FRAME AND DOOR. REMOVE DOOR LEAF. REMOVE ALL HARDWARE FROM EXISTING DOOR LEAF. SAND ENTIRE DOOR LEAF. TOUCH-UP ANY DISCOLORATION WITH MATCHING STAIN. INSTALL NEW FINISH. REINSTALL EXISTING REFINISHED DOOR LEAF WITH NEW HARDWARE.
5. ALTERNATE. PROVIDE TYPE C, INTRUSION RESISTANCE GLASS, IN DOOR LEAFS ONLY.
6. DOOR TO UTILIZE 180 DEGREE HINGES TO OPEN AGAINST WALL.
7. PANIC DEVICE OR LATCH TO HAVE ELECTRIC LATCH BOLT. PREPARE FRAME FOR ELECTRIC LATCH HINGE.
8. DOOR TO BE PREPARED TO BE CONTROLLED BY CARD READER/FOB. REFER TO ELECTRICAL DRAWINGS FOR ROUTING.
9. PROVIDE POWER ASSISTED OPERATOR ON ONE LEAF OF DOUBLE DOORS.
10. PROVIDE ALUMINUM THRESHOLD SET IN FULL BED OF MASTIC.
11. PROVIDE KEYED REMOVABLE MULLION.
12. PREPARE DOOR AND FRAME FOR POSITION SWITCH.

NO.	DESC.	TYPE	DOOR			GLASS			FRAME			LABEL	HARDWARE		NOTES
			W	H	MAT'L	DOOR	SIDE LGT	TRA	MAT'L	DEPTH	ELEV.		CLOSER	EXIT DEVICE	
A40A	SINGLE	EXIST	3'-0"	7'-0"	EXIST				EXIST	6"	EXIST				4
A40B	SINGLE	1	3'-0"	7'-0"	ALUM	B			ALUM	6"	SF2				2 & 3
A42A	SINGLE	EXIST	3'-0"	7'-0"	EXIST				EXIST	6"	EXIST				4
A42B	SINGLE	1	3'-0"	7'-0"	ALUM	B			ALUM	6"	SF2				2 & 3
A44	SINGLE	EXIST	3'-0"	7'-0"	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST				1
A46	SINGLE	EXIST	3'-0"	7'-0"	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST				1
A47	SINGLE	EXIST	3'-0"	7'-0"	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST				1
A49	SINGLE	EXIST	3'-0"	7'-0"	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST				1
A50	SINGLE	1	3'-0"	7'-0"	WOOD				HM	6"	HM1				
A51	SINGLE	1	3'-0"	7'-0"	WOOD				HM	6"	HM1				
A52A	SINGLE	3	3'-0"	7'-0"	WOOD	A			HM	6"	HM1				6
A52B	SINGLE	3	3'-0"	7'-0"	WOOD	A			HM	6"	HM1				6
A56A	DOUBLE	2	6'-0"	7'-0"	ALUM	B	D	D	ALUM	4 1/2"	SF1				5
A56B	DOUBLE	2	6'-0"	7'-0"	ALUM	A	D	D	ALUM	4 1/2"	SF1				
A57	SINGLE	1	3'-0"	7'-0"	WOOD				HM	6"	HM1				
A58	SINGLE	1	3'-0"	7'-0"	WOOD				HM	6"	HM1				
A59A	SINGLE	3	3'-0"	7'-0"	WOOD	A			HM	6"	HM1				6
A59B	SINGLE	3	3'-0"	7'-0"	WOOD	A			HM	6"	HM1				6

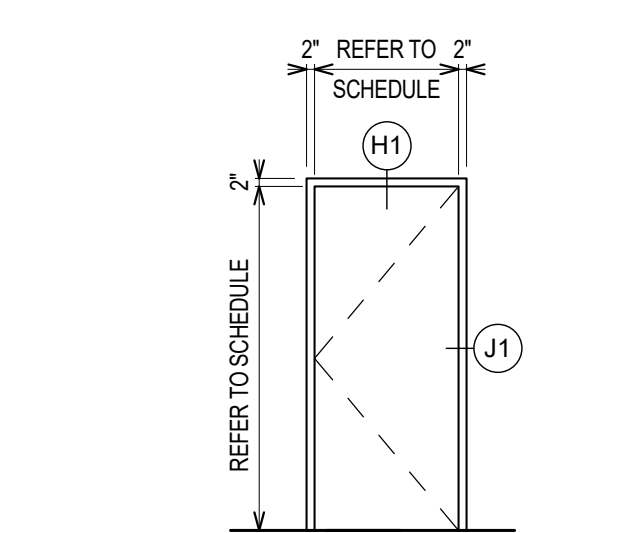


1. FOR HOLLOW METAL HEAD, JAMB AND SILL DETAILS REFER TO WALL SECTIONS AND HOLLOW METAL (HM) FRAME PROFILES
2. PROVIDE SEALANT AROUND PERIMETER OF ALL FRAMES.
3. DIMENSIONS SHOWN ARE NOMINAL. FIELD VERIFY ALL DIMENSIONS SHOWN PRIOR TO FABRICATION AND INSTALLATION.
4. JAMB, HEAD, AND SILL DO NOT SHOW WALL CONSTRUCTION. SEE FLOOR PLAN FOR WALL MATERIALS. SEE ROOM FINISH SCHEDULE FOR WALL FINISHES.

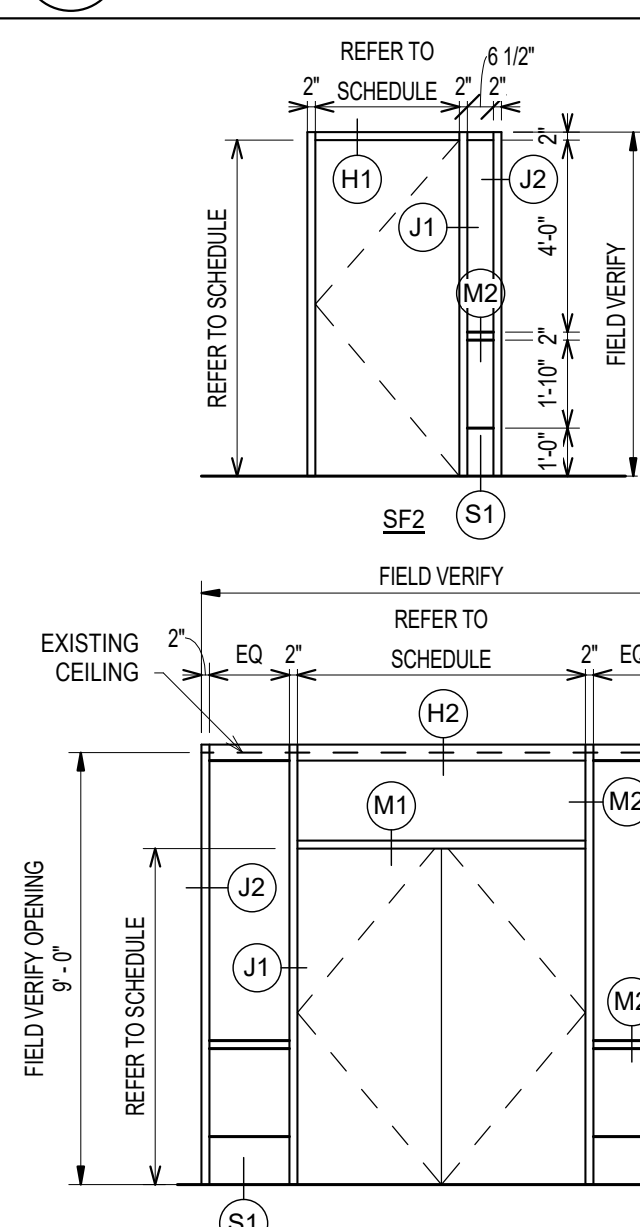


A-601 $3'' = 1'-0''$

A-601 $1/4" = 1'-0"$

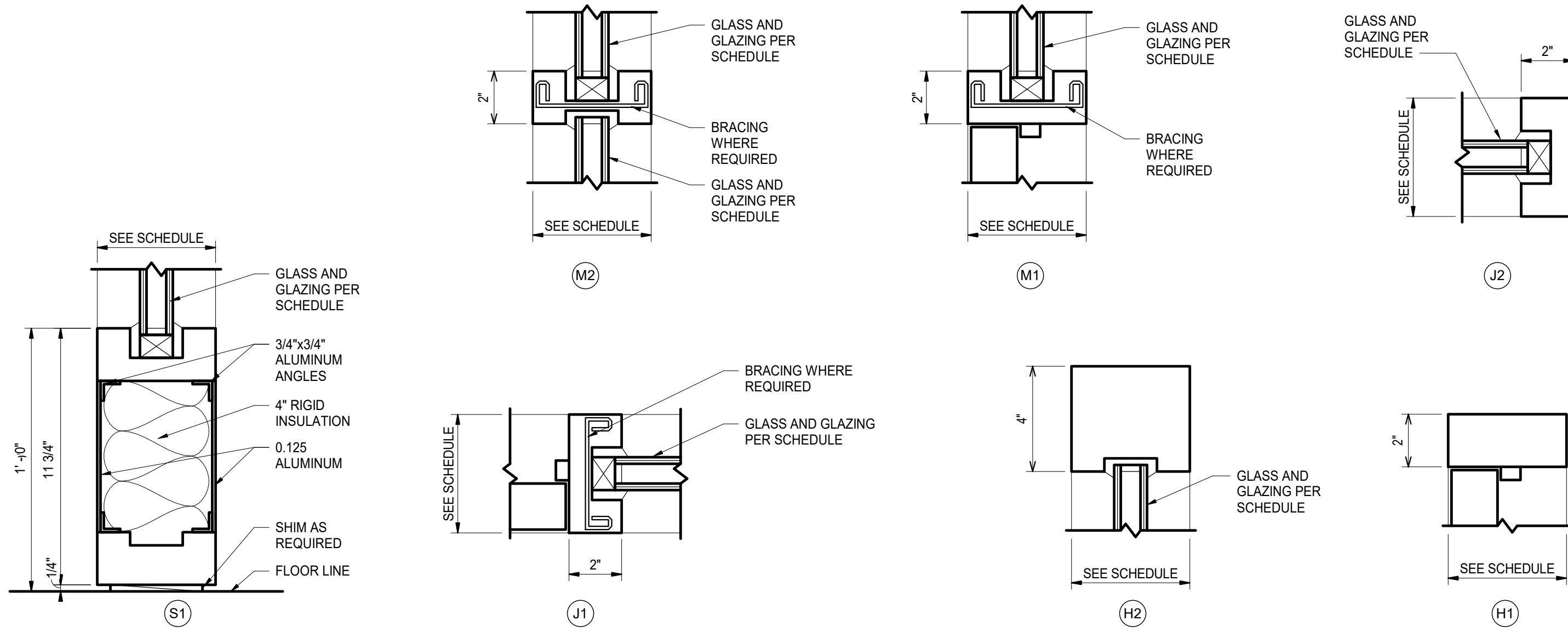
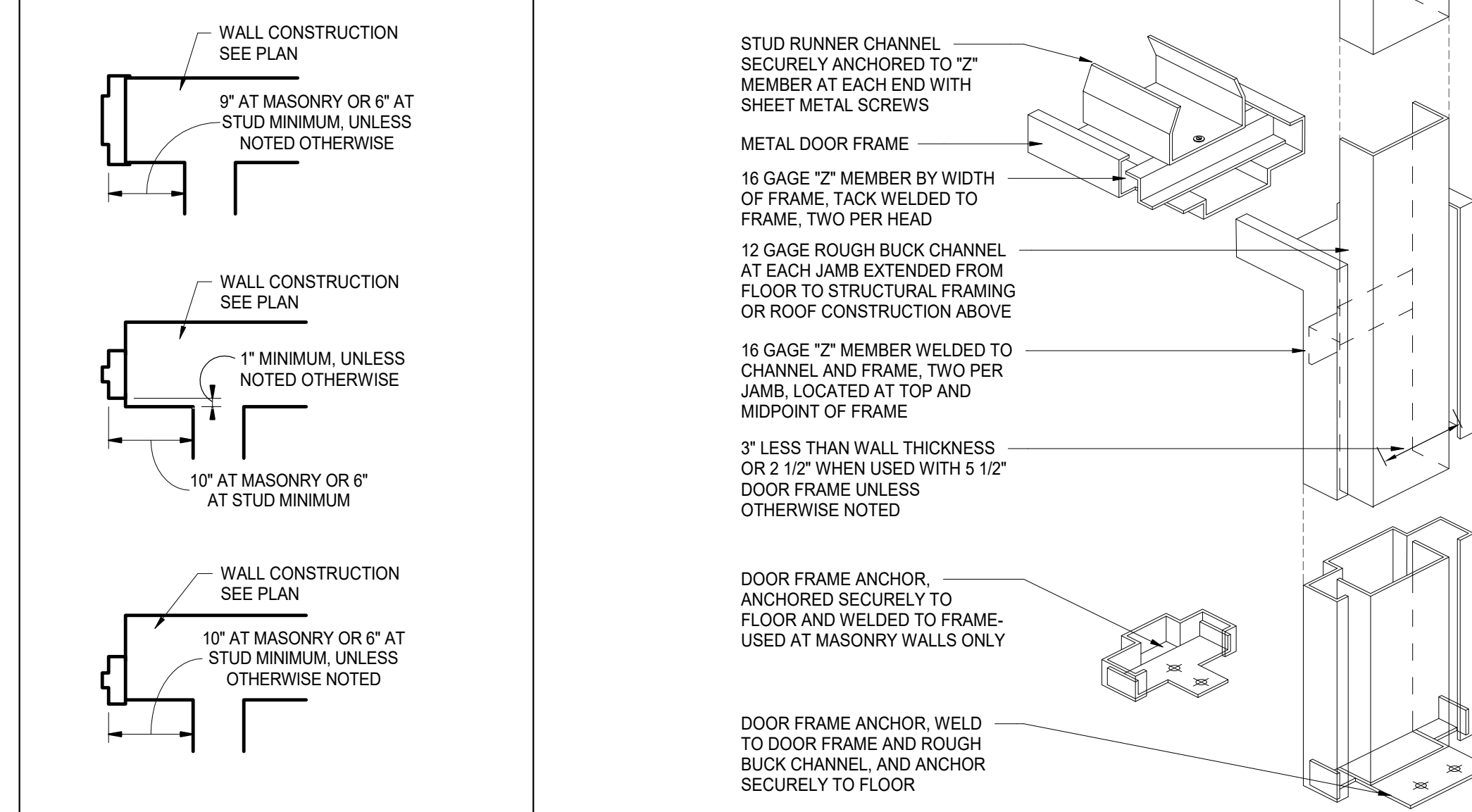


1. FOR STOREFRONT HEAD, JAMB AND SILL DETAILS REFER TO SECTIONS AND ALUMINUM STOREFRONT (SF) FRAME PROFILES
2. PROVIDE SHIM SPACE, BACKER ROD, AND SEALANT AROUND PERIMETER OF ALL FRAMES WHERE FRAMING ABUTS DISSIMILAR MATERIAL.
3. PROVIDE FOAM INSULATION IN SHIM SPACE AROUND PERIMETER OF ALL EXTERIOR STOREFRONT FRAMING.
4. DIMENSIONS SHOWN ARE NOMINAL. FIELD VERIFY ALL DIMENSIONS SHOWN PRIOR TO FABRICATION AND INSTALLATION.
5. ALL FRAMES IN EXTERIOR WALLS SHALL BE THERMALLY BROKEN WITH "I" INSULATED GLAZING.
6. REFER TO DOOR AND FRAME SCHEDULE FOR GLASS SCHEDULE.
7. ALL GLAZING SHALL CONFORM TO STATE AND LOCAL CODES.
8. ALL MULLIONS TO BE PROFILE M2 UNLESS NOTED OTHERWISE.
9. PROVIDE 3/4"x3/4" ALUMINUM SCRIBE MOLD AT PERIMETER OF BOTH SIDES ON ALL FRAMES UNLESS NOTED OTHERWISE. SET SCRIBE MOLD IN SEALANT



A-601 $3/4" = 1'-0"$

A-601 NTS



A-601 3" = 1'-0"