DATE: September 22, 2023

FROM: Wight & Company/Wight Construction Services, Inc.
2500 N. Frontage Road
Darien, IL 60561

SUBJECT: ADDENDUM 2 TO THE BIDDING DOCUMENTS FOR:

CHILD ADVOCACY CENTER PROJECT

Project No: **230186**

This addendum forms a part of the bidding and contract documents and modifies the original bid documents dated **9.11.23** Acknowledge receipt of this addendum when providing bid price. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

CONSTRUCTION

1. Advocacy Center RFI's LOG
2. Changes to SCOPE BP2 & BP 7

General Trades Scope BP02:

Note #4 was removed from Scope Package and Added into BP07 Painting.

Note #6 Added wording: This TRADE CONTRACTOR shall be responsible for Furnishing and installation of all Hollow metal door frames, Wood Doors, Sidelights, Hardware, Per drawing A8.01

Added Doors Hardware Spec Section 087111.

Painting BP07

Added #6 This TRADE CONTRACTOR shall be responsible for installation of Wall coverings as called out on the Finished Legend

END OF ADDENDUM 2

Child Advocacy Center RFI's

Number		
#1	Question	Please confirm existing fire alarm equipment manufacturer. The fire alarm spec lists Fire-Lite by Reliable Fire on (page 1) and GE EST (Page 5).
#1	Answer	Correct, the Fire alarm MFG is Reliable - MS 9200udls
#2	Question	Can you call out the sign schedule in this RFP?
#2	Answer	Reference A12.01
#3	Question	Opening #101 should be Level 1 Bullet Resistant. For this opening, is door, frame and hardware by Owner/Others?
#3	Answer	NO Doors and Frame are to be what is listed on Door Schedule A8.01
#4	Question	For all Storefront Aluminum Door Hardware, is this by BP02 General Trades, or would that be part of BP13 Glazing/storefront?
#4	Answer	Door hardware will be apart of General Trades package Glazing will be handling the glass and Store Front glass called out on A8.01 / C
#5	Question	Typically the Storefront / Glazing contractors install the security windows. Confirm security window, A2.01 keynote #20, to be excluded from the General Trades scope and installation included by Storefront /Glazing contractor?
#5	Answer	Security window will be done by General trades – This window is being reused an is a complete system and will be just need to be installed on your frame work
#6	Question	Is General Trades to furnish and install the door /frames /hardware? Scope only
#6	Answer	General Trades are to Furnish and Install - BP02 item #6 wording "Furnish" has been added.
#7	Question	Typically painter furnish and install the wall coverings. Can wall covering WCO-1 be excluded from General Trades to be furnished and installed by Painter?
#7	Answer	Wall coverings have been removed From BP 02 General Trades and placed in the BP 078 Painting.

SECTION 087111 - 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. Section Includes:

1. Commercial door hardware for the following:

    a. Swinging doors.
    b. Other doors to the extent indicated.

2. Cylinders for door hardware specified in other Sections.

B. Related Requirements:

1. Division 06 Section "Architectural Woodwork" for cabinet door hardware provided as part of architectural woodwork.
2. Division 08 Section "Hollow Metal Doors and Frames" for door silencers provided as part of the frame.
3. Division 08 Section "Aluminum-Framed Entrances and Storefronts" for installation of entrance door hardware, except cylinders.
4. Division 08 Section "Flush Wood Doors" for integral intumescent seals provided as part of labeled fire-rated assemblies.
5. Division 26 Sections for connections to electrical power system and for low-voltage wiring work.

C. Products furnished, but not installed, under this Section include the following. Coordinating, purchasing, delivering, and scheduling remain requirements of this Section.

1. Hardware for aluminum entrance doors and frames specified in other Sections.

1.3 ACTION SUBMITTALS

A. Product Data: Include installation details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: Details of electrified door hardware, indicating the following:

1. Wiring Diagrams: For power, signal, and control wiring and including the following:

a. Details of interface of electrified door hardware and building safety and security systems.

2. Operation Narrative: Describe the operation of doors controlled by electrified door hardware.

C. Samples for Verification: For exposed door hardware of each type, in specified finish, full size. Tag with full description for coordination with the door hardware sets. Submit Samples before, or concurrent with, submission of the final door hardware sets.

1. Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated into the Work, within limitations of keying requirements.

D. Other Action Submittals:

1. Door Hardware Schedule: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as installation procedures and diagrams. Coordinate the final door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

a. Submittal Sequence: Submit door hardware schedule after or concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
b. Format: Use same scheduling sequence and format and use same door numbers as in the Contract Documents. Double space entries, and number and date each page.
c. Content: Include the following information:

1) Identification number, location, hand, fire rating, size, and material of each door and frame.
2) Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
3) Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
4) Description of electrified door hardware sequences of operation and interfaces with other building control systems.
5) Fastenings and other pertinent information.
6) Explanation of abbreviations, symbols, and codes contained in schedule.
7) Mounting locations for door hardware.

8) List of related door devices specified in other Sections for each door and frame.

2. Keying Schedule: Prepared by or under the supervision of Installer, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations that are coordinated with the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and Architectural Hardware Consultant.

B. Product Certificates: For electrified door hardware, from the manufacturer.

1. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.

C. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for door hardware on doors located in accessible routes.

D. Warranty: Special warranty specified in this Section.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware and keying schedule.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An employer of workers trained and approved by product manufacturers with experience in installing specified items.

B. Hardware Supplier Qualifications:

1. Supplier must be a corporate member in good standing of The Door and Hardware Institute (DHI).
2. Supplier shall employ an active Architectural Hardware Consultant (AHC), who is currently participating in DHI’s continuing education program (CEP).
3. Warehousing Facilities: In Project’s vicinity.
4. Scheduling Responsibility: Preparation of door hardware schedule.
5. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer’s standard units in assemblies similar to those indicated for this Project.

C. Source Limitations: Obtain each type of door hardware from a Source Limitations: Obtain each type of door hardware from a single manufacturer.

1. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated. Manufacturers that perform electrical modifications and that are listed by a testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.

D. Fire-Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C, unless otherwise indicated.

E. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.

1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. at the tested pressure differential of 0.3-inch wg of water.

F. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

G. Means of Egress Doors: Latches do not require more force than 8-1/2 lbf to release the latch for exterior doors and 5 lbf for interior doors. Locks do not require use of a key, tool, or special knowledge for operation.

H. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and the Illinois Accessibility Act.

1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.
2. Comply with the following maximum opening-force requirements:

a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf applied perpendicular to door.
b. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.

3. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.

I. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." In addition to Owner, Construction Manager, Contractor, 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 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.

J. Preinstallation Conference: Conduct conference at Project site.

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Inspect and discuss preparatory work performed by other trades.
3. Inspect and discuss electrical roughing-in for electrified door hardware.
4. Review sequence of operation for each type of electrified door hardware.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

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

1.8 COORDINATION

A. Installation Templates: Distribute for doors, frames, and other work specified to be factory 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.

B. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

C. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including excessive deflection, cracking, or breakage.
b. Faulty operation of operators and door hardware.
c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

B. Warranty Period: One year from date of Substantial Completion, except as follows:

1. Exit Devices: Two years from date of Substantial Completion.
2. Locks: 3 years from date of Substantial Completion.
3. Manual Closers: 10 years from date of Substantial Completion.

1.10 MAINTENANCE SERVICE

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.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. Provide door hardware for each door as scheduled in Part 3 "Door Hardware Schedule" Article to comply with requirements in this Section.

1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated.
2. Sequence of Operation: Provide electrified door hardware function, sequence of operation, and interface with other building control systems indicated.

B. Designations: Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware are indicated in Part 3 "Door Hardware Schedule" Article. Products are identified by descriptive titles corresponding to requirements specified in Part 2.

C. Hardware shall be BHMA Grade 1.

2.2 HINGES

A. Hinges: BHMA A156.1, Grade 1. Provide template-produced hinges for hinges installed on hollow-metal doors and hollow-metal frames.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Hager.
b. Ives.
c. Stanley.
d. No alternate manufacturers will be accepted without architect's approval prior to bidding.

B. Quantity: Provide the following, unless otherwise indicated:

1. Two Hinges: For doors with heights up to 60 inches.
2. Three Hinges: For doors with heights 61 to 90 inches.
3. Four Hinges: For doors with heights 91 to 120 inches.
4. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

C. Hinge Weight: Unless otherwise indicated, provide the following:

1. Entrance Doors and other high frequency doors: Heavy duty continuous hinges.
2. Interior Doors: Standard weight ball bearing hinges.
3. Interior Doors 3'4" wide or greater: Heavy weight ball bearing hinges.

D. Hinge Base Metal:

1. Exterior Butt Hinges: Stainless steel, with stainless-steel pin.
2. Continuous gear hinges: Anodized aluminum anodized
3. Interior Hinges: Steel with steel pin.

E. Hinge Options:

1. Nonremovable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for outswinging exterior doors.
2. Corners: Square.
3. All hinges to be ball bearing hinges.

F. Fasteners: Comply with the following:

1. Machine Screws: For metal doors and frames. Install into drilled and tapped holes.
2. Wood Screws: For wood doors and frames.
3. Threaded-to-the-Head Wood Screws: For fire-rated wood doors.
4. Screws: Phillips flat-head; machine screws (drilled and tapped holes) for metal doors. Wood screws for wood doors and frames]. Finish screw heads to match surface of hinges.

2.3 CONTINUOUS HINGES

A. Continuous Hinges: BHMA 156.26, minimum 0.120-inch-thick, hinge leaves with minimum overall width of 4 inches; fabricated to full height of door and frame and to template screw locations; with components finished after milling and drilling are complete.

B. Continuous, Gear-Type Hinges: Extruded-aluminum, pinless, geared hinge leaves joined by a continuous extruded-aluminum channel cap; with concealed, self-lubricating thrust bearings.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:

    a. Hager.
    b. Ives.
    c. Select.
    d. No alternate manufacturers will be accepted without architect’s approval prior to bidding.

2. Grade: Grade 1-300.
3. Hinges for Fire-Rated Assemblies: With steel fire pins to hold fire-rated doors in place if required by tested listing.
4. Mounting: Concealed leaf.

2.4 MECHANICAL LOCKS AND LATCHES

A. Lock Functions: As indicated in door hardware schedule. Provide mortise and cylindrical locksets as indicated in hardware sets.

B. Lock Throw: Comply with testing requirements for length of bolts to comply with labeled fire door requirements, and as follows:

1. Mortise Locks: Minimum 3/4-inch latchbolt throw.
2. Deadbolts: Minimum 1-inch bolt throw.

C. Lock Backset: 2-3/4 inches, unless otherwise indicated.

D. Lock Trim:

1. Description: As indicated in door hardware schedule.
2. Dummy Trim: Match lever lock trim and escutcheons.
3. Operating Device: Lever with escutcheons (roses).

E. Strikes: Provide manufacturer's standard strike for each lock bolt or latchbolt complying with requirements indicated for applicable lock or latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.

1. Aluminum-Frame Strike Box: Manufacturer's special strike box fabricated for aluminum framing.

F. Mortise Locks: BHMA A156.13, Grade 1. Provide cylindrical locks where indicated in hardware sets (BHMA A156.2, Series 4000, Grade 1).

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Schlage.
b. No alternate manufacturers will be accepted without architect's approval prior to bidding.

2.5 DOOR BOLTS

A. Automatic Flush Bolts: BHMA A156.3, Grade 1; designed for mortising into door edge.

B. Dustproof Strikes: Grade 1, polished wrought brass, with 3/4-inch-diameter, spring-tension plunger.

C. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

1. Flush Bolts:

a. Hager.
b. Ives.
c. Rockwood.
d. No alternate manufacturers will be accepted without architect's approval prior to bidding.

D. Bolt Throw: Comply with testing requirements for length of bolts to comply with labeled fire door requirements, and as follows:

1. Mortise Flush Bolts: Minimum 3/4-inch throw.

2.6 EXIT DEVICES AND AUXILIARY ITEMS

A. Exit Devices and Auxiliary Items: BHMA A156.3, Grade 1.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Corbin Russwin (ED5000 Series)
b. Sargent (80 Series)
c. Von Duprin (99 Series)
d. Adam Rite (8700 Series). Adams Rite to be no sub and acceptable only at aluminum door applications where specified in sets.
e. No alternate manufacturers will be accepted without architect's approval prior to bidding.

B. Panic Exit Devices: Listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for panic protection, based on testing according to UL 305.

C. Fire Exit Devices: Devices complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252.

D. Fire-Exit Removable Mullions: Provide removable mullions for use with fire exit devices complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252. Mullions shall be used only with exit devices for which they have been tested.

E. Through-Bolt Fasteners: For exit devices and trim on metal doors and fire-rated wood doors.

2.7 LOCK CYLINDERS

A. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver. All lock cylinders to be Schlage Primus XP cylinders keyed into the existing masterkey system.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Schlage.
b. No alternate manufacturers will be accepted without architect’s approval prior to bidding.

2.8 KEYING

A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A. Incorporate decisions made in keying conference.

1. Key all locks and cylinders to the existing masterkey system as directed by owner.

B. Keys: Nickel-silver.

1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:

a. Notation: "DO NOT DUPLICATE."

2. Quantity: In addition to one extra blank key for each lock, provide the following:

a. Cylinder Change Keys: Three.
b. Master Keys: Five.
c. Grand Master Keys: Five.

2.9 OPERATING TRIM

A. Operating Trim: BHMA A156.6, Grade 1; stainless steel, unless otherwise indicated.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Hager.
b. Ives.
c. Rockwood.
d. No alternate manufacturers will be accepted without architect’s approval prior to bidding.

B. Flat Push Plates: 0.050 inch thick, 4 inches wide by 16 inches high with square corners and beveled edges; secured with exposed screws.

C. Straight Door Pulls: With minimum clearance of 1-1/2 inches from face of door.

1. Type: 1-inch constant diameter pull.
2. Mounting: Through bolted with oval-head machine screws and countersunk washers.
3. Center to Center Length: 10 inches.

2.10 SURFACE CLOSERS

A. Surface Closers: BHMA A156.4, Grade 1; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force. Provide extra duty arm at parallel arm locations.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Corbin Russwin (DC8000 Series)
b. LCN (4040XP Series)
c. Sargent (281 Series)
d. No alternate manufacturers will be accepted without architect’s approval prior to bidding.

B. Surface Closer with Cover: Grade 1; Modern Type with mechanism enclosed in cover. Mounting and type as indicated, with adjustable backcheck effective between 60 and 85 degrees of door opening, and molded plastic cover.

C. Size of Units: Unless otherwise indicated, comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.

2.11 AUTOMATIC DOOR OPERATORS

A. General: Provide operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL325. Coordinate operator mechanisms with door operation, hinges, and activation devices.

1. Fire Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA80 for fire-rated door components and are listed and labeled by a qualified testing agency.

B. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

C. Standard: Certified ANSI/BHMA A156.19.

1. Performance Requirements:

a. Opening force if power fails: Not more than 15lbf to release a latch if provided, not more than 30lbf required to manually set door in motion, and not more than 15lbf required to fully open door.
b. Entrapment Protection: Not more than 15lbf required to prevent stopped door from closing or opening.

D. Configuration: Surface mounted. Door operators to control single swinging and pair of swinging doors.

E. Operation: Power opening and spring closing capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19. When not in automatic mode, door operator to function as manual door closer with fully adjustable opening and closing forces, with or without electrical power.

F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

H. Activation Devices: Provide activation devices in accordance with ANSI/BHMA A156.19 standard, for condition of exposure indicated and for long term, maintenance free operation under normal traffic load operation. Coordinate activation control with electrified hardware and access control interfaces. Activation switches are standard SPST, with option DPDT availability.

1. Manufacturers:

a. LCN

b. Motion Access (Condor Swing)
c. Stanley (Magic Force)
d. No alternate manufacturers will be accepted without architect's approval prior to bidding.

2.12 MECHANICAL STOPS AND HOLDERS

A. Wall- and Floor-Mounted Stops: BHMA A156.16, Grade 1; polished cast brass, bronze, or aluminum base metal; with rubber bumper.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Hager.
b. Ives.
c. Rockwood.
d. No alternate manufacturers will be accepted without architect's approval prior to bidding.

2.13 OVERHEAD STOPS AND HOLDERS

A. Overhead Stops and Holders: BHMA A156.8, Grade 1.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. ABH.
b. Glynn-Johnson.
c. Rixson.
d. No alternate manufacturers will be accepted without architect's approval prior to bidding.

2.14 METAL PROTECTIVE TRIM UNITS

A. Metal Protective Trim Units: BHMA A156.6, Grade 1; fabricated from 0.050-inch-thick sheet; with manufacturer's standard machine or self-tapping screw fasteners.

1. Approved Manufacturers: Subject to compliance with requirements, provide product indicated on schedule or equal product by one of the following:

a. Hager.
b. Ives.
c. Rockwood.
d. No alternate manufacturers will be accepted without architect’s approval prior to bidding.

2.15 ELECTRIC STRIKES

A. Electric Strikes: Heavy duty, confirming to ANSI/BHMA A156.31, UL listed for both Burglary Resistance and for use on fire rated door assemblies. Stainless Steel construction tested to 2000 lbf of static strength and 120 ft-lb dynamic strength. Strikes tested for a minimum 1 million operating cycles. Provide strikes with 12 or 24VDC capability and supplied as fail secure unless otherwise specified.

1. Acceptable Manufacturers:

a. HES.
b. Von Duprin.
c. No alternate manufacturers will be accepted without architect’s approval prior to bidding.

2.16 DOOR GASKETING

A. Standard: BHMA A156.22.

B. General: Provide continuous weather-strip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated or scheduled. Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

1. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
2. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
3. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

C. Air Leakage: Not to exceed 0.50 cfm per foot of crack length for gasketing other than for smoke control, as tested according to ASTM E283.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated, based on testing according to ASTM E1408.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Gasketing Materials: ASTM D2000 and AAMA 701/702.

G. Manufacturers:

1. National Guard Products (NGP).
2. Pemko.
3. Zero.
4. Smoke Seals. Provide smoke seal gasketing at all fire doors regardless if shown in sets.

2.17 THRESHOLDS

A. Standard: BHMA A156.21.

B. Accessibility Requirements: Where thresholds are indicated to comply with accessibility requirements, comply with the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)."

1. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch high.

C. Thresholds for Means of Egress Doors: Comply with NFPA 101. Maximum 1/2 inch high.

D. Manufacturers:

1. National Guard Products (NGP).
2. Pemko.
3. Zero.

2.18 FABRICATION

A. Base Metals: Produce door hardware units of base metal, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18 for finishes. Do not furnish manufacturer's standard materials or forming methods if different from specified standard.

B. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to commercially recognized industry standards for application intended.

Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.

1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
2. Fire-Rated Applications:

    a. Wood or Machine Screws: For the following:

        1) Hinges mortised to doors or frames; use threaded-to-the-head wood screws for wood doors and frames.
        2) Strike plates to frames.
        3) Closers to doors and frames.

    b. Steel Through Bolts: For the following unless door blocking is provided:

        1) Surface hinges to doors.
        2) Closers to doors and frames.
        3) Surface-mounted exit devices.

3. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
4. Fasteners for Wood Doors: Comply with requirements in DHI WDHS.2, "Recommended Fasteners for Wood Doors."
5. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.19 FINISHES

A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.

B. Wood Doors: Comply with DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."

3.3 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."

B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

C. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

D. Stops: Provide wall stops for doors unless floor or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.

3.4 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. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

3.5 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary 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.

3.6 MISCELLANEOUS

A. Fire-Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL10C, unless otherwise indicated. Provide positive latching and self closing, regardless if specified in sets.

B. Items of hardware not definitely specified herein but necessary for completion of the Work shall be provided. Such items shall be of type and quality suitable to the service required and comparable to the adjacent hardware. Where size and shape of members is such as to prevent the use of types specified, hardware shall be furnished of suitable types having as nearly as practicable the same operation and quality as the type specified. Sizes shall be adequate for the service required. Include such nuances as strike type, strike lip, raised barrel hinges, mounting brackets, fasteners, shims, and coordination between conflicting products. All doors shall be provided with a stop.

3.7 DOOR HARDWARE SCHEDULE

SET 01

1	EA	CONTINUOUS HINGE	224XY	CLR	IVES
1	EA	EXIT DEVICE	99NL-OP	626	VON DUPRIN
1	EA	I/C CYLINDER	AS REQUIRED	626	SCHLAGE

1	EA	PRIMUS I/C CORE	AS REQUIRED	626	SCHLAGE
1	EA	PULL BF158	630	ROCKWOOD	
1	EA	CLOSER	4040XP	689	LCN
1	EA	WALL STOP	409	630	ROCKWOOD
1	EA	ELECTRIC STRIKE	6300	630	VON DUPRN
1	EA	KICKPLATE	10” X 2” LDW	630	ROCKWOOD

**CARD READER AND REMOTE RELEASE BY SECURITY SUPPLIER.

OPERATION: DOOR NORMALLY LOCKED AND CLOSED. VALID CARD READ OR REMOTE RELEASE WILL RELEASE ELECTRIC STRIKE TO ALLOW ENTRY. UPON LOSS OF POWER OPENING REMAINS SECURED. FREE EGRESS IS ALWAYS ALLOWED.

SET 02

	EA	HINGES	AS SPECIFIED	652	IVES
1	EA	CLASSROOM LOCK	L9070T X 06A	626	SCHLAGE
1	EA	PRIMUS I/C CORE	AS REQUIRED	626	SCHLAGE
1	EA	WALL STOP	409	630	ROCKWOOD

SET 03

	EA	HINGES	AS SPECIFIED	652	IVES
1	EA	OFFICE LOCK	L9050T X 06A	626	SCHLAGE
1	EA	PRIMUS I/C CORE	AS REQUIRED	626	SCHLAGE
1	EA	WALL STOP	409	630	ROCKWOOD

SET 04

	EA	HINGES	AS SPECIFIED	652	IVES
1	EA	PASSAGE	L9010 X 06A	626	SCHLAGE
1	EA	OVERHEAD HODLER	GJ100H	630	GLYNN-JOHNSON

SET 05

	EA	HINGES	AS SPECIFIED	652	IVES
1	EA	PRIVACY	L9040 X 06A X L283-722	626	SCHLAGE
1	EA	CLOSER	4040XP	689	LCN
1	EA	WALL STOP	409	630	ROCKWOOD
1	EA	KICKPLATE	10” X 2” LDW	630	ROCKWOOD

SET 06

	EA	HINGES	AS SPECIFIED	652	IVES
1	EA	PASSAGE	L9010 X 06A	626	SCHLAGE
1	EA	WALL STOP	409	630	ROCKWOOD

SET 07

	EA	HINGES	AS SPECIFIED	652	IVES
1	EA	OFFICE LOCK	L9050T X 06A	626	SCHLAGE
1	EA	PRIMUS I/C CORE	AS REQUIRED	626	SCHLAGE
1	EA	WALL STOP	409	630	ROCKWOOD
1	SET	SEALS	5050C	BLK	NGP
1	EA	AUTO DR BOTTOM	420NA	AL	NGP
1	EA	THRESHOLD	411	AL	NGP

SET 08

1	EA	AUTO OPERATOR	4640	689	LCN
2	EA	ACTUATOR	8310-818T	630	LCN
2	EA	FLUSH JAMB BOX	8310-819F	---	LCN
1	EA	RELAY	10BR3	---	BEA
1	EA	ELECTRIC STRIKE	7800	630	ADAMS RITE

**CARD READER BY SECURITY SUPPLIER.
**PATCH EXISTING DOOR AND FRAME FOR REMOVED CLOSER.
**AUTO OPERATOR WILL ONLY WORK WHEN EXIT DEVICE IS DOGGED DOWN.
**BALANCE OF HARDWARE IS EXISTING TO REMAIN.

SET 09

1	EA	EXIT DEVICE	8701 X 03 FUNCTION	628	ADAMS RITE
1	EA	I/C CYLINDER	AS REQUIRED	626	SCHLAGE
1	EA	PRIMUS CORE	AS REQUIRED	626	SCHLAGE
1	EA	PULL BF158	630	ROCKWOOD	
1	EA	AUTO OPERATOR	4640	689	LCN
2	EA	ACTUATOR	8310-818T	630	LCN
2	EA	FLUSH JAMB BOX	8310-819F	---	LCN
1	EA	RELAY	10BR3	---	BEA
1	EA	ELECTRIC STRIKE	7800	630	ADAMS RITE

**CARD READER AND REMOTE RELEASE/INTERCOM SYSTEM BY SECURITY SUPPLIER.
**PATCH EXISTING DOOR AND FRAME FOR REMOVED CLOSER.
**BALANCE OF HARDWARE IS EXISTING TO REMAIN.
**CONFIRM ELECTRIC STRIKE COMPATIBILITY WITH EXISTING EXIT DEVICE. FIELD VERIFY.

SET 10

1	EA	I/C CYLINDER	AS REQUIRED	626	SCHLAGE
1	EA	PRIMUS CORE	AS REQUIRED	626	SCHLAGE
1	EA	ELECTRIC STRIKE	7800	630	ADAMS RITE

**CARD READER BY SECURITY SUPPLIER.
**BALANCE OF HARDWARE IS EXISTING TO REMAIN.
**CONFIRM ELECTRIC STRIKE COMPATIBILITY WITH EXISTING EXIT DEVICE. FIELD VERIFY.

SET 11

1	EA	STOREROOM LOCK	ND80TD X RHO	626 SCHLAGE
1	EA	PRIMUS I/C CORE	AS REQUIRED	626 SCHLAGE

**BALANCE OF HARDWARE IS EXISTING TO REMAIN.

SET 12

	EA	HINGES	AS SPECIFIED	652 IVES
1	EA	OFFICE LOCK	L9050T X 06A	626 SCHLAGE
1	EA	PRIMUS I/C CORE	AS REQUIRED	626 SCHLAGE
1	EA	OVERHEAD STOP	GJ100 SERIES	630 GLYNN-JOHNSON

SET 13

1	EA	I/C CYLINDER	AS REQUIRED	626 SCHLAGE
1	EA	PRIMUS CORE	AS REQUIRED	626 SCHLAGE

SET 14

	EA	HINGES	AS SPECIFIED	652 IVES
1	EA	STOREROOM LOCK	L9080T X 06A	626 SCHLAGE
1	EA	PRIMUS I/C CORE	AS REQUIRED	626 SCHLAGE
1	EA	WALL STOP	409	630 ROCKWOOD

3.8 HARDWARE SET ASSIGNMENTS

Door Number	Hardware Set
100	8
100A	9
100B	10
100B2	13
100C	10
100C2	13
100D	10
101	1
103	2
105	2
106	3
107	3
108	3
109	3
110	4
112	5
113	5
114	6
115	2
115A	11
121	7

Door Number	Hardware Set
121B	11
122	7
123	12
124	3
131	3
132	3
133	3
134	3
135	6
136	14
137	6
138A	11
141	3
142	3
143	3
144	3
145	2
146A	11
147	2
147A	11
148	2

END OF SECTION 087111