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**West Branch – Rose City Area Schools**
**2024 Door and Window Replacement Project**
**West Branch, Michigan**

**January 29, 2024**

**Project No. 263-18Q**

# ADDENDUM NO. 1

This Addendum is being issued for the purpose of modifying and/or clarifying the original Bidding Documents dated January 19, 2024 and shall take precedence over them.

All work included herein shall be in accordance with the general requirements of the original bidding documents, except as specifically noted herein.

This Addendum is being sent to all known plan holders, suppliers, plan rooms, and governmental agencies having received Bidding Documents.

Supplemental Documents Issued:

Revised Specification Section 08 71 00 dated January 29, 2024

Item No. 1: Refer to revised Specification Section 08 71 00 issued with this Addendum. Note revisions to Hardware Sets 2 and 3 for incorporation of Owner's existing access control (card reader) system.

**END OF ADDENDUM NO. 1**

# SECTION 08 71 00

# DOOR HARDWARE

## PART 1 GENERAL

### 1.1 SUMMARY

A. Section includes:
   1. Furnish hardware required to complete the work as shown on the drawings and as specified herein;
   2. Furnish trim attachments and fastenings, specified or otherwise required, for proper and complete installation.
   3. Furnish all items of Finish Hardware specified, scheduled, shown or required herein except those items specifically excluded from this section of the specification.

B. Related Sections:
   1. Section 08 41 13 – Aluminum-Framed Entrances and Storefronts.

### 1.2 DEFINITIONS

A. "Finish Hardware": Items required for swinging doors, except special types of unique and non-matching hardware specified under door and frame Sections of these Specifications.

### 1.3 DESIGN REQUIREMENTS

A. Thoroughly review finish hardware schedule, comparing it with the floor plan, door schedule, and door details to verify hardware requirements, quantities, door swings, finishes, and sizes.

B. If an inconsistency or error in the proposed construction documents is suspected, the hardware supplier is to bring it immediately to the attention of the Architect. If the quantity of items is questioned, for bidding purposes, assume the higher quantity is required and price accordingly.

C. Architect’s review of Submittals is for design concept only, and does not relieve the Contractor of the responsibility to furnish sufficient material and functions required for a complete, and code-worthy installation. Determination of all quantities is the responsibility of the Contractor.

### 1.4 PERFORMANCE REQUIREMENTS

A. Furnish finish hardware complying with the requirements of laws, codes, ordinances and guidelines of governmental authorities having jurisdiction:

B. NFPA 101, “Life Safety Code”, 2015 edition.

C. International Building Code - 2015 Edition

D. ANSI A117.1-2015 Accessible and Usable Buildings and Facilities

### 1.5 SUBMITTALS

A. Hardware Schedule:

1. Submit "Finish Hardware Schedule" in the following format:
   a. Vertically-typed, double-spaced;
   b. Organized into "hardware sets", indicating complete designations of every item required for each door or opening. Include the following information for each item of finish hardware:
      1) Manufacturer
      2) Type
      3) Style
      4) Function
      5) Size
      6) Degree and direction of opening swing (“hand”)
      7) Finish
      8) Fasteners
      9) Location of hardware set cross-referenced to indications on floor plans, door, schedule, and frame schedule.
      10) Explanation of all abbreviations, symbols, codes, etc. contained in schedule.
      11) Mounting heights and locations for hardware.
      12) Door and frame sizes and materials.
      13) Keying information.
   c. Electrified Hardware system operation description.

B. Product Data:
   1. Submit, in booklet form Manufacturers Catalog cut sheets of scheduled hardware.
   2. Submit product data with hardware schedule.

C. Electrified Hardware Drawings:
   1. Submit Riser & Wire Diagram RPIOH091423 drawings showing relationship of all electrical hardware components to door and frame. Indicate number and gage of wires required. RPIOH091423 shall be included with the submittals.
      a. Include wiring drawing showing point to point wire hook up for all components.
      b. Include system operations descriptions for each type of opening; describe each possible condition

## 1.6 QUALITY ASSURANCE

A. Perform Work in accordance with the following requirements:
   1. ANSI A156 series.
   2. NFPA 80.
   3. UL 305.

## 1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

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

1.8 DELIVERY, STORAGE, AND HANDLING

A. Package hardware items individually with necessary fasteners, instructions, and installation templates, when necessary; label and identify each package with door opening code to match hardware schedule.
   1. Include instructions, templates, and fasteners needed for installation.

1.9 COORDINATION

A. Coordinate Owner's keying requirements during course of Work.

PART 2 PRODUCTS

2.1 GENERAL

A. Requirements for design, grade, function, finish, size, and other distinctive qualities of each finish hardware item is indicated in the Drawings.

B. Product designations:
   1. Provide the product designated or the comparable product by the Manufacturers listed under this Section.

C. ANSI/BHMA designations:
   1. Used to describe hardware items, or to define quality or function. Provide products complying with these standards in addition to additional requirements of this Section.

D. Hand of door: Drawings show direction of slide, swing (“hand”) of door leafs.

E. Hardware: Use hardware manufactured to conform to published templates and, generally, prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated.

2.2 MATERIALS

A. Base metals:
   1. Manufacturer's standard metal alloy, composition, temper and hardness, but in no case of lesser (commercially-recognized) quality than that specified for applicable hardware units by applicable ANSI A156 series standard for each type hardware item and with ANSI A156.18 for finish designations indicated.
   2. Do not furnish "optional" materials for those indicated, except as otherwise specified.

B. Fasteners:
   1. Furnish Phillips flat-head screws with each hardware item, unless otherwise indicated.
   2. Exposed screws: Match finish of hardware (even where noted to be "prepared for paint").
   3. Use concealed fasteners for hardware units which are exposed when door is closed, except where no standard units of type specified are available with concealed fasteners.
   4. Do not use thru-bolts where bolt head or nut on opposite face would be exposed.
   5. Where adequate reinforcement is not feasible, thru-bolting would only be acceptable if through sleeves, or if sex-screw fasteners are used.

C. Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of finish hardware.

## 2.3 MANUFACTURED UNITS

A. Reference standards:
   1. Comply with BHMA/ANSI A156 current series for each product type.

B. Hardware finishes:
   1. Materials and Finishes Standard: Comply with ANSI A156.18 (BHMA 1301). Finish designations used in schedules are listed, therein.
   2. Provide matching finishes for hardware units at each door, unless otherwise indicated.
   3. Match the color and texture of hardware items to manufacturer's standard finish for the latch set, lockset, or push-pull unit.
   4. Provide quality of finish, including thickness of plating or coating, composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than that specified or described by referenced standards.

C. Hardware for fire-rated openings:
   1. Comply with NFPA 80.
   2. Tested and listed by Underwriters Laboratory (UL), or Factory Mutual (FM) for type, size and use of door, and complying with requirements of door and door frame label.
   3. Provide UL or FM label on door indicating "Fire door to be equipped with fire-exit hardware".
   4. Provide UL or FM label on exit device indicating "Fire Exit Hardware".

## 2.4 PRODUCTS

A. Hinges:
   1. Continuous Hinges:
      a. Continuous hinges shall be Heavy-Duty 304 Stainless-Steel Pin & Barrel hinges with 600lb rating.
      b. ANSI/BHMA A156.26 -Grade 1.
      c. Fire-rating: "WHI-listed" or "UL-listed" as necessary.
      d. Placement of fire label will be on top of the door at cont. hinge locations.
      e. Provide hinge filler plates to fill existing hinge preps.
      f. Undersize doors according to hinge clearance requirements.
      g. Furnish power transfer preps as specified.
      h. Acceptable manufacturer's: PBB, IDC, Zero.
   2. Butt Hinges:
      a. ANSI A156.1 - for commercial quality.
      b. Provide only template-produced units.
      c. All butt hinges to be ball bearing-5 knuckle type Standard or Heavy Weight as specified.
      d. Hinges at exterior doors shall be of non-ferrous material.
      e. All hinges shall be provided Non-removable (NRP)
      f. Size and number of hinges as specified; otherwise according to hinge manufacturer's recommendation for door size and weight.
      g. Acceptable products: PDQ, PBB

B. Lock Cylinders and Keying:
   1. General:
      a. All final cylinders by Owner.
   2. Cylinders:
      a. Type: Mortise or rim-type as required by function of locking device.

b. Provide screw on cams or tail piece as required.
c. Construct lock cylinder parts from brass/bronze, stainless steel or nickel silver.
d. Provide solid machined cylinder rings with tension spring to resist wrenching of cylinder. Length, finish and size as required.
e. Provide cylinder(s) and core(s) as required by function for each locking device.

3. System:
   a. Unless otherwise indicated, final combinated cylinders by owners.

C. Locksets:
1. Mortise Locks as required to match existing preps:
   a. Comply with ANSI A156.13 - 1987, Grade 1 criteria for mortise locks
   b. Function: Mechanical and Electric functions Indicated in the hardware sets.
      i. Electrical lock requirements: Motor Driven 24VDC, Field Selectable NFS-Fail Safe / FSC-Fail Secure Trim with RX request to exit switch. Lockset case shall to be non-handed.
   c. Provide sized lip of strike based on frame conditions.
   d. Provide appropriate fasteners for lock and strike.
   e. Trim: Stainless Steel, BJSJ equal to PDQ.
   f. Acceptable products: Schlage L9000, PDQ MR.

D. Exit Devices & Fire Exit Hardware
1. General:
   a. Comply with ANSI A156.3, Grade 1, Types 1, 4, and 28 criteria for products supplied.
   b. At fire doors:
      (1) Provide UL or FM label on exit device indicating "Fire Exit Hardware", where appropriate.
      (2) Mount exit device using sex-bolts on labeled wood doors.
   . c. Type: Flat, push-bar type –Thick-walled aluminum body with stainless steel Touch pad.
   d. Provide functions as specified in sets.
      i. Electrical panic requirements: Motor Driven 24VDC <1 AMP inrush with SS request to exit switch.
   e. Trim: BSN lever style, functions as specified.
   f. Provide dead-locking latch bolts.
   g. Provide glass bead trim kit 6290150 at raised lite trim locations.
   h. Alarmed panics as scheduled.
2. Acceptable products: PDQ 6000, SDC 6000.

E. Push / Pulls Bars & Grips
1. General:
   a. ANSI A156.16 - 1989 Grade 1 criteria.
2. Description:
   a. Offset pull bar 1” in diameter straight / offset & center to center as specified.
   b. Straight push, low-profile flat bar x center to center as required.
   c. Offset Ladder pulls 36" CTC, 1-1/4" Dia., 48" overall
3. Mounting:
   a. Mount push-pull bars back-to-back and 4 -134 mount at free ends
   b. Mount pull bars with 4-134 mount at free ends.
   c. Mount offset pulls to avoid conflict with exit device operation.
   d. Mount back-to-back pulls with appropriate fasteners accounting on door thickness and type.
4. Acceptable products: Don Jo, PDQ, Hiawatha

F. Closers:
   1. General:
      a. ANSI A156.4 - 1986 Grade 1 criteria.
      b. All closers shall be the products of one manufacturer.
   2. Description:
      a. Full rack-and-pinion type with double heat-treated spindle.
      b. Cast Iron Body.
      c. Hydraulic fluid: non-gumming and non-freezing.
      d. Closer body: non-handed, multi-size spring power.
      e. With three non-critical V valves and hex key adjustment to independently regulate sweep latch speed and backcheck.
      f. Provide mounting brackets necessary to clear sound seals and weatherstrip.
      g. Enclose in a full, molded cover.
      h. Provide drop plates and / or special brackets for proper mounting.
      i. Pressure Relief Valves will not be accepted on Door Closers.
      j. Provide Barrier Free power setting as required by ANSI A117.1
   3. Acceptable products: International PDQ 7000, 44CI Series, LCN 4040XP.

G. Stops:
   1. General:
      a. ANSI A156.16 - 1989 Grade 1 criteria.
      b. Provide stops where scheduled, wall or floor, as opening conditions dictate, utilizing wall stops wherever possible.
   2. Description:
      a. Wall stops: Cast brass, bronze or stainless steel. Concave wall stop to have stainless steel washer imbedded in rubber stop.
      b. Floor stops: Cast Stainless, brass or bronze, and plated as required.
      c. Make selection of floor stop height based upon floor conditions and door undercut.
      d. Overhead Stops: Stainless steel body sized for width of door.
   3. Acceptable products: PDQ, Hiawatha, Don Jo

H. Kick plates, mop plates and armor plates:
   1. General: ANSI A156.16 - 1989 criteria.
   2. Description:
      a. Minimum .050" thick
      b. Dimensions:
         1) Width: 2" less than door width to which they are to be applied.
         2) Kick plate height: 10"
      c. Mounting:
         1) Install kick plates and armor plates flush to bottom edge of door.
   3. Acceptable manufacturers: Hiawatha, PDQ and Don Jo

I. Thresholds:
   1. General:
      a. ANSI A156.21 - 1989, Grade 1 criteria.
      b. Comply with A.D.A. requirements, unless otherwise scheduled.
   2. Description:
      a. Flat profile
      b. Installation locations are scheduled.
      c. Provide templates for thresholds to related door suppliers to coordinate proper undercut.
   3. Acceptable products: Reese, IDC, KN Crowder

J. Miscellaneous Hardware Equipment and Material:

1. General:
   a. Provide items and types as specified.

2.5 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

2.6 HARDWARE FINISHES

A. General:
   1. Provide matching finishes for hardware units at each door or opening, to the greatest extent possible and except as otherwise indicated.
   2. Reduce differences in color and textures as much as commercially possible where the base metal or metal forming process is different for individual units of hardware exposed at the same door or opening.
   3. In general, match items to the manufacturer's standard finish for the latch and lock set (or push/pull units if no latch/lock sets) for color and texture.
   4. Provide finishes matching those established by BHMA or, if none established, match the Architect's sample.
   5. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness and other qualities complying with manufacturer's standards, but in no case less than that specified for the applicable units of hardware by referenced standards.
   6. Finish designations used in schedules and elsewhere listed in ANSI A156.18 "Materials and Finishes Standard", including coordination with the traditional U.S. finishes shown by certain manufacturers for their products.

B. Provide the following hardware finishes, unless otherwise scheduled: Dull Chrome, Stainless Steel, and Aluminum color pallet.

C. Base material: Manufacturer’s standard high-carbon steel, brass, or bronze.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify doors and frames are ready to receive door hardware and dimensions are as indicated on shop drawings.

B. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

B. General:
   1. Install each item in its proper location firmly anchored into position, level and plumb, and in accordance with the manufacturer's recommendations.

2. Handing, hardware heights, locations, and degree of opening swing are indicated in the Drawings and Finish Hardware Schedule.
3. Mount finish hardware units:
   a. At recommended heights and locations as shown in approved finish hardware schedule, complying with requirements of the A.D.A., and pertinent provisions of the Building Code.
   b. To function at proper degree of opening of doors as indicated on approved finish hardware schedule.
   c. By manufacturer's template.
   d. Prior to final finishing of the door. Remove hardware to allow finishing of door, and permanently reinstall hardware upon completion of finishing operation.
4. Reinforce, where necessary, the substrate to assure proper attachment.
5. Drill and countersink units which are not factory-prepared for anchorage fasteners.
6. Space fasteners and anchors in accordance with industry standards.

C. Installing closers:
   1. Mount closers per manufacturer's template and secure the Architect’s approval of the closer installation.
   2. The Contractor will be required to replace doors onto which closers are improperly mounted at no additional cost to the Owner. Repair or patching of such doors will not be acceptable.

D. Installing Stops: Install all wall stops into reinforced wall or stud. Projection type wall stops (115) should be mounted 80” from finish floor, with sloped portion of the stop facing up / flat side down. Install floor stops out of the way foot traffic at a height high enough to accommodate any ramp or uneven floor condition.

E. Installing thresholds at exterior doors: Set in full bed of butyl-rubber, or polyisobutylene mastic sealant.

F. Installing weatherstrip: Install weatherstrip prior to installing closers, OH Stops or panic hardware. Template closers and panic devices from weatherstrip and install all closer / OH Stop shoe brackets and panic device strikes onto the weatherstrip without notching or cutting the weatherstrip.

G. Installing Sweeps: Install all sweeps on exterior side of opening.

## 3.3 ADJUSTING AND CLEANING

A. Check and adjust each item of hardware and each door upon completion of final installation. Verify proper function, and replace units which cannot be made to operate freely and smoothly, as intended for the application.

B. Clean adjacent surfaces soiled by hardware installation.

## 3.4 PROTECTION OF INSTALLED CONSTRUCTION

A. Do not permit adjacent work to damage hardware or hardware finish.

3.5 HARDWARE SETS

Hardware Set 1 –Rim Panic [Always Locked] + Closer

| | | | |
|---|---|---|---|
| 1 | ea. | Continuous Hinge CH51 | 32D |
| 1 | ea. | Rim Panic 6310R CD (01) | 32D |
| 1 | ea. | Combinated Mortise Cylinder by Owner (CD) | 26D |
| 1 | ea. | Flush Pull SL-86 by door manufacturer | ---- |
| 1 | ea. | Closer 7101 BC SCS x DPPA-BS-NFB (push side mount) | AL |
| 1 | ea. | Threshold S205 (notch & cope as required) | AL |
| 1 | set | Sweeps and Weatherstrip by door and frame supplier | AL |

H Hardware Set 2 – Rim Panics x EL Mullion x EL Strikes w/ Pull Trim [Access Control] + Closers
(Requires 3” stiles & top rail and 10” bottom rail)

| | | | |
|---|---|---|---|
| 2 | ea. | Continuous Hinge CH51 | 32D |
| 1 | ea. | Panic Device 6400R CD (01) | 32D |
| 1 | ea. | Panic Device 6400R CD (03) | 32D |
| 1 | ea. | Electric Transfer Keyed Removable Mullion EM 9300 | 689 |
| 2 | ea. | Combinated Rim Cylinder by Owner (03) (KM) | 26D |
| 2 | ea. | Combinated Mortise Cylinder by Owner (CD) | 26D |
| 2 | ea. | Pull 1157 x 4 134 Mount | 32D |
| 2 | ea. | Closer 7101 BC SCS Stop x DPPA-BS-NFB | 689 |
| 1 | ea. | Threshold S205A | AL |
| 1 | set | Mullion Seal 628 | ---- |
| 1 | set | Sweeps and Weatherstrip by door and frame supplier | AL |
| 1 | ea. | Electric Strike 9910 24V Fail Secure (RHR Leaf) | 630 |
| 1 | ea. | Power Supply 632RF | ---- |
| 1 | ea. | Existing Access Control Module & Card Reader by Security Vender | ---- |

Note: Existing Access control module, card reader and peripherals furnished by Security Vender, Coordinated by GC/CM.

Hardware Set 3 – Rim Panics x EL Mullion x EL Strikes w/ Pull Trim [Access Control] + Closers

| | | | |
|---|---|---|---|
| 2 | ea. | Continuous Hinge CH51 | 32D |
| 1 | ea. | Panic Device 6300R CD (01) | 32D |
| 1 | ea. | Panic Device 6300R CD (03) | 32D |
| 1 | ea. | Electric Transfer Keyed Removable Mullion EM 9300 | 689 |
| 2 | ea. | Combinated Rim Cylinder by Owner (03) (KM) | 26D |
| 2 | ea. | Combinated Mortise Cylinder by Owner (CD) | 26D |
| 2 | ea. | Flush Pull SL-86 by door manufacturer | ---- |
| 2 | ea. | Closer 7101 BC SCS Stop x DPPA-BS-NFB | 689 |
| 1 | ea. | Threshold S205A | AL |
| 1 | set | Mullion Seal 628 | ---- |
| 1 | set | Sweeps and Weatherstrip by door and frame supplier | AL |
| 1 | ea. | Electric Strike 9910 24V Fail Secure (RHR Leaf) | 630 |
| 1 | ea. | Power Supply 632RF | ---- |
| 1 | ea. | Existing Access Control Module & Card Reader by Security Vender | ---- |

Note: Existing Access control module, card reader and peripherals furnished by Security Vender, Coordinated by GC/CM.

**END OF SECTION**