



Division of Finance and Business Operations

Procurement & Strategic Sourcing
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October 26, 2017

**Addendum #1 To
Request for Proposal
For Student center Fire Doors: Project 034-307969**

**Minutes of the Pre-bid Conference
Dated October 16, 2017**

The Addendum must be acknowledged on your lump sum bid.

The pre-bid conference for Request for Proposal for **Student center Fire Doors**, Project **034-307969** was held on **October 25, 2017**, at **3:00 pm** (local time) – at Detroit, MI 48202. **Kimberly Tomaszewski** reviewed the highlights of the pre-bid package, especially concerning details such as bid due dates and who Contractors may contact during the live bid process. **Allen Gigliotti** discussed the technical aspects of the project and bid requirements, and conducted the Q & A session.

NOTE: You must have attended a pre-bid conference in order to be eligible to bid on a particular project. Receipt of minutes or addenda without being at a pre-bid conference does not qualify your company to bid.

Numerous simple questions and answers were addressed at the pre-bid meeting. Some of the issues were as follows:

1. Minimum Participation

- A. Pre-registration for the Pre-Bid meeting is required. In the event that we do not have four (4) or more eligible bidders pre-registered, the University reserves the right to postpone the Pre-bid meeting with up to 4 business hour notice.**
 - B. If less than 4 individual contractor firms attend the mandatory pre-bid meeting, the University reserves the right, at its sole discretion, to either reschedule the pre-bid conference or proceed and offer a second pre-bid conference date. (Attendance at only one pre-bid conference will be required).**
 - C. On the day of the bid opening, if less than 3 sealed bids are received, the University reserves the right, at its sole discretion, to rebid the project in an effort to obtain greater competition. If the specifications are unchanged during the rebid effort, any contractor who submitted a bid will be given the option of keeping its bid on file for opening after the second bid effort, or of having the bids returned to them unopened.**
2. Smoke and Tobacco Free Policies: On August 19, 2015, Wayne State joined hundreds of colleges and universities across the country that have adopted smoke- and tobacco-free policies for indoor and outdoor spaces. Contractors are responsible to ensure that all employees and all subcontractors' employees are in compliance anytime they are on WSU's main, medical, or extension center campuses. The complete policy can be found at <http://wayne.edu/smoke-free/policy/>
 3. Sworn Statement Requirements: The University tracks it's level of spend along a number of socio-economic categories. This includes it's spend with Diverse organizations, it's spend with Detroit based organizations, and it's spend with Michigan based organizations. To assist with this, The University has reporting requirements to be included with the submission of your bid and for Pay Applications submitted by the successful contractor.
 4. A bid bond is not required for bids below \$50,000. Otherwise, a bid bond (5%) will be required for the full amount of the bid.
 5. Performance Bond and Material & Labor Payment Bond requirements are listed in the specifications of the job. Performance & Material & Labor Payment Bonds must be provided by the awarded Contractor with the submission of the signed contract; which will then be submitted to FP&M management for counter signature.
 6. The awarded Contractor must provide the required Certificate of Insurance in compliance with Section 800, article 11 of the bid specifications prior to commencement of any work.
 7. Please review the insurance section carefully, there are some changes in the documents, such as the addition of professional liability insurance and changes in the amounts of required insurance for most of the categories
 8. If your company has not previously done business with the University you may go to the Purchasing website at **www.purchasing.wayne.edu** and look for the "new vendor" link under "Information for Vendors" on the left. You may submit a new vendor request form and an IRS form W-9. This will register your company on our vendor list. (NOTE: this does not replace the listserv.)

9. This Project Requires the Contractor and any subcontractors to compensate all employees who come to the job site at no less than State of Michigan Prevailing Wage Rates. A Prevailing Wage Rate Schedule is included as Appendix A to the Bid Specifications. Contractors must review these requirements to be sure they are in compliance with the requirements of the University and the State of Michigan. Contact the State of Michigan if further information on prevailing wage rate is needed at website http://www.michigan.gov/dleg/0,1607,7-154-27673_27706---,00.html. Contractors must post wages at the job site in compliance with the complete Prevailing Wage Rate listing provided in Bid Documents.
10. 1099 workers and subcontractors using 1099 workers are NOT acceptable
11. Certified Payroll must be provided with each of the contractor's pay applications for all workers who worked at the job site, in compliance with the State of Michigan policy. Failure to provide certified payroll will constitute breach of contract and pay applications will be returned unpaid, and remain so until satisfactory supporting documents are provided.
12. Signed waivers from all Subcontractors and suppliers must accompany Pay Applications or they will be returned for such documentation prior to approval.
13. A properly executed sworn statement is required from all tiers of contractors, and sub-contractors indicating sub-contractors and suppliers which provide services or product of \$1,000.00 or greater. Sworn statements must accompany applications for payment
14. All documents listed in the Front End Section 0410-2 "Wayne State Prevailing Wage Requirements" must accompany applications for payment. Failure to do so will result in the entire application package returned for correction.
15. A checklist of all Pay Application requirements can be found in Section 00430-1.
16. Note: there is a new section 440 Contractors Performance Evaluation. This is a new part of the contract and will be performed at the end of every job.
17. The competency and responsibility of Bidders will be considered in making the award. The Owner does not obligate himself to accept the lowest or any other bids. The Owner reserves the right to reject any and all bids and to waive any informalities in the Proposals
18. Parking on WSU campus lots and structures are \$7.75/access. Contractor must build parking into their lump sum bid. There is no parking allowed on the malls.
19. Section 300, Form of Proposal has changed very recently, review carefully and complete in its entirety to avoid disqualification.
20. The contractors **must** fill out our prequalification form. They can attach additional information if they would like but at a minimum the information requested must be filled in on our form so that we do not have to hunt to find the information.
21. Contractors who have withdrawn a bid after a University bid opening and/or refused to enter into a contract with the University upon notification of award within the last 3 years are not eligible to bid on this project.
22. Project hours of operation are 7:00am – 5:00 pm. Anything else requires advance notice and approval.
23. Prequalification meeting will be held the first business day after bid openings. Contractors must be available. The Project Manager will coordinate the meetings.
24. Prequalification meeting includes Schedule of Values from the Contractor, including a list of Contractor's subcontractors and other qualifications required by the documents.
25. An unsigned contract will be given to the successful Contractor at the conclusion of the Prequalification meeting, if all aspects of the bid are in order. The Contractor has 5 business days to return the contract to the Project Manager for University counter signature. The contractor must also submit a Performance Bond as outlined above and a Certificate of Insurance in the same 5 business day period. In the event the Contractor fails to return the documents in this 5 day period, the University reserves the right to award the contract to the next most responsive bidder.
26. An Optional second walk thru was not scheduled.
27. The complete Scope of Work is an attachment to this Addendum. The University is replacing the doors with hollow metal fire doors.
28. There will be a staging area in the lower level of the building for storing and securing the the products required for completing this project.
29. The project will require all new hardware for the doors being replaced. However, the University will work with the University's Lock Shop on the cores.
30. Should your company have an alternative to the scope the University is requesting, please bid to the specifications released and then provide a Voluntary Alternate for the additional recommendation.
31. Permit requirements are the responsibility of the awarded contractor as listed on Section 800 Article 4. However, there will be no permits required for this project.
32. Contractor must provide their own dumpster if needed, which must be rubber or plywood padded if placed on concrete. Location and duration must be coordinated with the project manager. Dumpster must be tagged with the name of your company clearly displayed. Any lawn damage must be restored.
33. Questions are due by **October 27, 2017** at 12:00 noon
34. Bids are due no later than 2:00 p.m., **November 2, 2017**, at 5700 Cass Ave. Room 4200 AAB.
No public bid opening will be held.
35. **Time of Completion:** The Contract is expected to be fully executed on or about 15 calendar days after successful bidder qualification and recommendation of award. The successful bidder (Contractor) agrees to start construction **immediately after** receipt of a fully executed contract and Purchase Order, and to complete the work as follows: Substantial Completion, and State Approved Inspections (if appropriate), no later than **April 15, 2018**.

36. A copy of the sign in sheet is available for downloading from the University Purchasing Web Site at **<http://go.wayne.edu/bids>**.
37. This is an occupied area, awarded Contractor must be considerate of environment (noise, cleanliness, etc)
38. **IMPORTANT- This is an addendum which MUST be acknowledged on your bid form**

We will require two copies each of your lump sum proposals, vendor qualification questionnaire and your bid bond documents.

All questions concerning this project must be emailed to: **Kimberly Tomaszewski**, Procurement & Strategic Sourcing. Email: **ac9934@wayne.edu**, and copy **Leiann Day**, **Associate Director**, at **leiann.day@wayne.edu**.

Do not contact either FP&M or the Design Firm directly as this may result in disqualification of your proposal.

Thank you for interest shown in working with Wayne State University.

Kimberly Tomaszewski
Senior Buyer

CC: **Allen Gigliotti** (Project Manager), **Leiann Day**, **Associate Director**, Attendee list.

SUMMARY OF WORK

PROJECT: Student Center Fire Door Replacement

WSU PROJECT NO.: 034-307969

PROJECT MANAGER: Allen Gigliotti

PROJECT OVERVIEW

Wayne State University (WSU) is seeking proposals for a lump sum construction services contract for replacement of fourteen fire doors at the WSU Student Center including all necessary permits and inspections.

PROJECT SCOPE

The intent of this solicitation is to encourage the submission of proposals to provide full services for the complete turnkey lump sum contract for the removal and replacement of fourteen pairs of fire doors at the WSU Student Center. The contractor is responsible for all phases of this project from planning, design, removal and disposal of existing doors, installation of new doors and project closeout as outlined in this request for proposal.

- The Contractor shall visit the site and become familiar with conditions under which they will be working. Also meet with the project manager and review site access, storage areas, etc.
- The Contractor shall prepare architectural/engineering sealed drawings for installation of the new doors to be submitted to Wayne State University for review and approval before being submitted as required to the State of Michigan and the Authority Having Jurisdiction.
- Doors shall be 90-minute-rated, flush hollow-metal doors with keyed removable mullions, closers, panic hardware and kickplates (Detailed specifications follow.)
- The Student Center will be occupied during construction. Maintain continuous access to the stairwells. Any short-term interruption of access must be coordinated and approved by the WSU Project Manager.
- At the end of each working day, ensure that all doors are in place, properly latched, panic hardware is operating and that any other related life safety conditions are met.
- Provide all required permits.
- Provide a project schedule, including identification of lead items.
- Identify standard work days and hours.
- Identify any assumptions, conditions, and exclusions.
- All contractor purchased construction materials, and equipment are taxable.

The planning and construction of the project will be managed through all phases by the WSU Facilities Planning & Management, Design & Construction Services Department.

2. The building is located at

Wayne State University
5221 Gullen Mall
Detroit, Michigan 48202

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes interior and exterior hollow-metal work including steel doors and frames.

B. Related Requirements:

1. Section 087100 "Door Hardware" for door hardware for hollow-metal doors.

1.2 DEFINITIONS

A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMMHHMA 803 or SDI A250.8.

1.3 COORDINATION

A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

~~B. Security Coordination: Where required, doors and frames shall be prepared for a concealed installation of building security system components; such work shall be coordinated with University prior to the installation of the doors and frames.~~

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, core descriptions, fire-resistance ratings, and finishes.

B. Shop Drawings: Include the following:

1. Elevations of each door type.
2. Details of doors, including vertical- and horizontal-edge details and metal thicknesses.
3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
4. Locations of reinforcement and preparations for hardware.
5. Details of each different wall opening condition.
6. Details of anchorages, joints, field splices, and connections.
7. Details of accessories.
8. Details of moldings, removable stops, and glazing.
- ~~9. Details of conduit and preparations for power, signal, and control systems.~~

C. Schedule: Provide a schedule of hollow-metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings.

2. Coordinate with final Door Hardware Schedule.

1.5 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each type of hollow-metal door and frame assembly, for tests

performed by a qualified testing agency.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow-metal work palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.

1. Provide additional protection to prevent damage to factory-finished units.

B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.

C. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum 4-inch- high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Amweld International, LLC.
2. Ceco Door Products; an Assa Abloy Group company.
3. Curries Company; an Assa Abloy Group company.
4. Fleming-Baron Door Products.
5. Karpen Steel Custom Doors & Frames.
6. Pioneer Industries, Inc.
7. Windsor-Republic Doors and Frames.
8. Steelcraft; an Ingersoll-Rand company.

B. Source Limitations: Obtain hollow-metal work from single source from single manufacturer.

2.2 REGULATORY REQUIREMENTS

A. Fire-Rated Assemblies: Complying with NFPA 80 and listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

1. Smoke- and Draft-Control Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA 105.

B. Fire-Rated, Borrowed-Light Assemblies: Complying with NFPA 80 and listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing according to NFPA 257 or UL 9.

2.3 INTERIOR DOORS AND FRAMES

A. Construct interior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.

B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2.

1. Physical Performance: Level B according to SDI A250.4.

2. Doors:

a. Type: As indicated in the Door and Frame Schedule.

b. Thickness: 1-3/4 inches.

c. Face: Metallic-coated, cold-rolled steel sheet, minimum thickness of 0.042 inch.

d. Edge Construction: Model 1, Full Flush.

e. Core: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.

f. Core: Vertical steel stiffener.

3. Frames:

a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch.

b. Construction: Full profile welded.

4. Exposed Finish: Prime.

2.4 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

A. Construct exterior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.

B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2.

1. Physical Performance: Level B according to SDI A250.4.

2. Doors:

a. Type: As indicated in the Door and Frame Schedule.

b. Thickness: 1-3/4 inches

c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch, with minimum A40 coating.

d. Edge Construction: Model 2, Seamless.

e. Core: Polystyrene, polyurethane, or polyisocyanurate insulation with vertical steelstiffeners.

3. Frames:

a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40 coating.

b. Construction: Full profile welded.

4. Exposed Finish: Prime.

2.5 HOLLOW-METAL PANELS

A. Provide hollow-metal panels of same materials, construction, and finish as adjacent door assemblies.

2.6 FRAME ANCHORS

A. Jamb Anchors:

1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.

2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.

3. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.

B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042 inch, and as follows:

1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

2. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch height adjustment. Terminate bottom of frames at finish floor surface.

2.7 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.

B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B.

C. Frame Anchors: ASTM A 879/A 879M, Commercial Steel (CS), 04Z coating designation; mill phosphatized.

1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.

D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

E. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.

F. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143/C 143M.

G. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.

H. Glazing: Comply with requirements in Section 088023 "Interior Glazing."

I. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.8 FABRICATION

A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.

B. Hollow-Metal Doors:

1. Steel-Stiffened Door Cores: Provide minimum thickness 0.053 inch, steel vertical stiffeners of same material as face sheets extending full-door height, with vertical webs spaced not more than 6 inches apart. Spot weld to face sheets no more than 5 inches o.c. Fill spaces between stiffeners with glass- or mineral-fiber insulation.
2. Fire Door Cores: As required to provide fire-protection ratings indicated.
3. Stiles: Minimum 5-1/2 inches wide.
4. Vertical Edges for Single-Acting Doors: Bevel edges 1/8 inch in 2 inches.
5. Top Edge Closures: Close top edges of doors with inverted closures, except provide flush closures at exterior doors of same material as face sheets.
6. Bottom Edge Closures: Close bottom edges of doors where required for attachment of weather or sound stripping with end closures or channels of same material as face sheets.
7. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
8. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted or as required to comply with published listing of qualified testing agency.

C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

1. Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
4. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
5. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Masonry Type: Locate anchors not more than 16 inches from top and bottom of frame. Space anchors not more than 32 inches o.c., to match coursing, and as follows:
 - 1) Two anchors per jamb up to 60 inches high.
 - 2) Three anchors per jamb from 60 to 90 inches high.
 - 3) Four anchors per jamb from 90 to 120 inches high.
 - 4) Four anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.
 - b. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
 - 1) Three anchors per jamb up to 60 inches high.
 - 2) Four anchors per jamb from 60 to 90 inches high.
 - 3) Five anchors per jamb from 90 to 96 inches high.
 - 4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
 - c. Compression Type: Not less than two anchors in each frame.

- d. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.
- 6. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
 - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
 - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
- D. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.
- E. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
 - 1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
 - 2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.
- F. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with mitered hairline joints.
 - 1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollowmetal work.
 - 2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
 - 3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
 - 4. Provide loose stops and moldings on inside of hollow-metal work.
 - 5. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.

2.9 STEEL FINISHES

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
 - 1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

2.10 ACCESSORIES

- A. Louvers: Provide louvers for interior doors, where indicated, which comply with SDI 111C, with blades or baffles formed of 0.042-inch- thick, cold-rolled steel sheet set into 0.042-inch-thick steel frame.
 - 1. Sightproof Louver: Stationary louvers constructed with inverted-V or inverted-Y blades for interior doors.
 - 2. Lightproof Louver: Stationary louvers constructed with baffles to prevent light from passing from one side to the other.
- B. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
- C. Grout Guards: Formed from same material as frames, not less than 0.016 inch thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. Examine roughing-in for security wiring.
- D. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

3.3 INSTALLATION

- A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
- B. Hollow-Metal Frames: Install hollow-metal frames of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
 - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
 - a. At fire-rated openings, install frames according to NFPA 80.
 - b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
 - c. Install frames with removable stops located on secure side of opening.
 - d. Install door silencers in frames before grouting.
 - e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
 - f. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
 - g. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.
 - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.

- a. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
- 3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
- 4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
- 5. Concrete Walls: Solidly fill space between frames and concrete with mineral-fiber insulation.
- 6. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
- 7. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
- 8. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
 - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.

C. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.

- 1. Non-Fire-Rated Steel Doors:
 - a. Between Door and Frame Jambs and Head: 1/8 inch plus or minus 1/32 inch.
 - b. Between Edges of Pairs of Doors: 1/8 inch to 1/4 inch plus or minus 1/32 inch.
 - c. At Bottom of Door: 5/8 inch plus or minus 1/32 inch.
 - d. Between Door Face and Stop: 1/16 inch to 1/8 inch plus or minus 1/32 inch.
- 2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.

D. Glazing: Comply with installation requirements in Section 088023 "Interior Glazing" and with hollow-metal manufacturer's written instructions.

- 1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches o.c. and not more than 2 inches o.c. from each corner.

3.4 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.

B. Remove grout and other bonding material from hollow-metal work immediately after installation.

C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION 08 1113

SECTION 08 7100.10 – DOOR HARDWARE

PART 1 - GENERAL

1.1 Refer to "General and Special Conditions", and "Instructions to Bidders", Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.

1.2 Work Included

A. 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 Work

1. Division 01 – General Requirements
2. Division 06 – Rough Carpentry
3. Division 06 – Interior Architectural Woodwork: Installation of Finish Hardware
4. Division 08 – Steel Doors and Frames
5. Division 08 – Wood Doors
6. Division 08 – Aluminum Framed Entrances and Storefronts
7. Division 26 – Smoke Detection Systems
8. Division 27 – Security Access Systems

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere, unless specifically listed in the hardware sets:

1. Cabinet Hardware.
2. Signs, except as noted.
3. Folding partitions, except cylinders where detailed.
4. Sliding aluminum doors
5. Chain link and wire mesh doors and gates
6. Access doors and panels
7. Overhead and Coiling doors

1.3 Quality Assurance

A. Requirements of Regulatory Agencies:

1. Furnish finish hardware to comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction where such requirements exceed the requirements of the Specifications.
2. Furnish finish hardware to comply with the requirements of the regulations for public building accommodations for physically handicapped persons of the governmental authority having jurisdiction and to comply with Americans with Disabilities Act.
3. Provide hardware for fire-rated openings in compliance with NFPA 80 and state and local building code requirements. Provide only hardware that has been tested and listed by UL for types and sizes of doors required and complies with requirements of door and door frame labels.

B. Hardware Supplier:

1. Shall be an established firm dealing in contract builders' hardware. He must have

adequate inventory, qualified personnel on staff and be located within 100 miles of the project. The distributor must be a factory-authorized dealer for all materials required. The supplier shall be or have in employment an Architectural Hardware Consultant. (AHC)

C. Electrified Door Hardware Supplier:

1. Shall be an experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials.
2. Shall prepare 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.
3. Shall have experience in providing consulting services for electrified door hardware installations.

D. Pre-installation Meeting:

1. Before hardware installation, General Contractor/Construction Manager will request a hardware installation seminar be conducted on the installation of hardware; specifically that of locksets, closers, exit devices, overhead stops and coordinators. Manufacturer's representatives of the above products, in conjunction with the hardware supplier for the project, shall present the seminar. Seminar to be held at job site and attended by installers of hardware for aluminum, hollow metal and wood doors. Seminar to address proper coordination and installation of hardware, per finish hardware schedule for this specific project, by using installation manuals, hardware schedule, templates, physical product samples and installation videos.
2. When any electrical or pneumatic hardware is specified this meeting shall also include the following trades/installers: Electrical, Security, Alarm systems and Architect.
3. Convene one week prior to commencing work of this Section
4. The Hardware Supplier shall include the cost of this seminar in his proposal.

E. Manufacturer:

1. Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
2. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.

1.4 Submittals

A. Hardware Schedule

1. Submit number of Hardware Schedules as directed in Division 1.
2. Follow guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule unless noted otherwise.
3. Schedule will include the following:
 - a. Preface sheet listing category only and manufacturer's names of items being furnished as follows:
Hinges Manufacturer A Manufacturer B
Lock sets Manufacturer X Manufacturer X
Kick Plates Open Manufacturer Z
 - b. Hardware Locations: Refer to Article 3.1 B.2 Locations.

- c. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, door material, frame material, and UL listing.
- d. Hardware Description: Quantity, category, product number, fasteners, and finish.
- e. Headings that refer to the specified Hardware Set Numbers.
- f. Scheduling Sequence shown in Hardware Sets.
- g. Product data of each hardware item, and shop drawings where required, for special conditions and specialty hardware.
- h. Electrified Hardware system operation description.
- i. "Vertical" scheduling format only. "Horizontal" schedules will be returned "Not Approved."
- j. Typed Copy.
- k. Double-Spacing.
- l. 8-1/2 x 11 inch sheets
- m. U.S. Standard Finish symbols or BHMA Finish symbols.

B. Product Data:

- 1. Submit, in booklet form Manufacturers Catalog cut sheets of scheduled hardware.
- 2. Submit product data with hardware schedule.

C. Samples:

- 1. Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample, if required, of each type of exposed hardware unit, finished as required and tagged with full description for coordination with schedule.
- 2. Samples will be returned to the supplier. Units, which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.

D. Key Schedule:

- 1. Submit detailed schedule indicating clearly how the Owner's final keying instructions have been followed.
- 2. Submit as a separate schedule.

E. Electrified Hardware Drawings:

- 1. Submit elevation drawings showing relationship of all electrical hardware components to door and frame. Indicate number and gage of wires required.
 - 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.

F. Submit to General Contractor/Construction Manager, the factory order acknowledgement numbers for the various hardware items to be used on the project. The factory order acknowledgement numbers shall help to facilitate and expedite any service that may be required on a particular hardware item. General Contractor/Construction Manager shall keep these order acknowledgement numbers on file in the construction trailer.

1.5 Product Delivery, Storage, and Handling

- A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number, and deliver to the installer so designated by the contractor.

1.6 Warranties

A. Mortise locksets shall carry manufacturer's 3-year warranty against manufacturing defects and workmanship.

B. Closers shall carry manufacturer's 10-year warranty against manufacturing defects and workmanship.

C. Exit devices shall carry manufacturer's 3-year warranty against manufacturing defects and workmanship.

D. Continuous gear hinges shall carry manufacturer's Lifetime warranty to be free from defects in material and workmanship.

E. Balance of items shall carry a manufacturer's 1-year warranty against manufacturing defects and workmanship.

F. During the warranty period, replace defective work, including labor, materials and other costs incidental to the work. Inspect the work within 24 hours after receipt of notice from the Owner. Replace work found to be defective as defined in the General Conditions.

PART 2 - PRODUCT

2.1 Furnish each category with the products of only one manufacturer unless specified otherwise;

this requirement is mandatory whether various manufacturers are listed or not.

2.2 Provide the products of manufacturer designated or if more than one manufacturer is listed, the

comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, it is understood that this is the owner's Building Standard and "no substitution" is allowed.

A. Hinges & Pivot Sets:

1. Products listed in sets are Ives (IVE).
2. Equal products of any B.H.M.A. member will also be acceptable.

B. Push & Pull Trim:

1. Products listed in sets are Ives 8000 series (IVE).
2. Equal products of any B.H.M.A. member will also be acceptable.

C. Locksets and Latchsets – Grade A Mortise Type with Tubular Lever Trim:

1. Locks are to have a standard 2 3/4" backset.
2. Function numbers are Schlage (SCH) L9000 series with 03N lever trim.
 - a. Corbin-Russwin ML2000 LSM lever trim.
3. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond door frame trim at single doors and have 7/8" lip to center at pairs of 1-3/4" doors.

D. Panic Devices:

1. Locks are to have a standard 2 3/4" backset.
2. Function numbers are Von Duprin (VON) 98 series with trim as indicated in sets.
 - a. Sargent 80 Series

E. Flush Bolts:

1. Products listed in sets are Ives (IVE) FB series.
2. Equal products of any B.H.M.A. member will also be acceptable.

F. Surface Closers:

1. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
2. IR-LCN 4000 Series as listed in sets. (No substitutions)

G. Barrier Free Door Operators:

1. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
2. IR-LCN 4640 Series as listed in sets.
 - a. Equal products Dorma will also be acceptable.

H. Overhead Holders and Stops:

1. Type, function and fasteners must be same as Glynn-Johnson (GLY) specified. Size per manufacturer's selector chart. Plastic end caps, hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
2. Manufacture products using base material of Brass/Bronze for US3, US4, & US10B finished products and 300 Stainless Steel for US32 & US32D finished products.
3. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer's selector chart.
 - a. Equal products of any B.H.M.A. member will also be acceptable.

I. Kick Plates:

1. Products listed in sets are Ives (IVE) 8400 series.
2. Equal products of any B.H.M.A. member will also be acceptable.

J. Wall Stops and Holders:

1. Products listed in sets are Ives (IVE) WS series.
2. Equal products of any B.H.M.A. member will also be acceptable.

K. Thresholds & Seals:

1. Products listed in sets are National Guard Products (NGP).
 - a. Pemko
 - b. Reese
 - c. Zero

L. Door Position Switches:

1. Coordinate voltage requirements with Electrical Drawings and Specifications.
2. Numbers used are GE-Sentrol (SEN) #1076D. (No substitutions)

M. Miscellaneous:

1. Furnish items not categorized in the above descriptions but specified by manufacturer's names in Hardware Sets.

N. Fasteners:

1. Furnish fasteners of the proper type, size, quantity and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Furnish machine screws for attachment to reinforced hollow metal doors and frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.

2. Sex bolts will not be permitted on reinforced metal doors or wood doors where blocking is specified.

2.3 Finishes:

A. Provide finish for each item as indicated in sets.

2.4 Templates and Hardware Location:

A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.

B. Furnish metal template to frame/door supplier for continuous hinge.

C. Refer to Article 3.1 B.2, Locations, and coordinate with templates.

2.5 Cylinders and Keying:

A. Furnish cylinder housings that will accept a 7 pin (SFIC) small format interchangeable core.

B. Best small format Interchangeable final cores and keys will be furnished by the WSU key shop.

PART 3 - EXECUTION

3.1 Installation

A. General:

1. Install hardware according to manufacturers' installations and template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacture of the item.

2. Reinforced hollow metal doors and frames and reinforced aluminum door and frames will be drilled and tapped for machine screws.

3. Solid wood doors and frames: full thread wood screws. Drill pilot holes before inserting screws.

4. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keenform self-tapping. Use #13 or 3/16 drill for pilot.

5. Install weather-strip gasket prior to parallel arm closer bracket, rim exit device or any stop mounted hardware. Gasket to provide a continuous seal around perimeter of door opening. Allow for gasket when installing finish hardware. Door closers will require special templating. Exit devices will require adjustment in backset.

B. Existing Frame Modifications:

1. Modify, patch and repair all existing doors and frames as required for new door and hardware items specified. Return removed items to Walled Lake Consolidated Schools. Reuse the balance of existing items currently installed on doors.

C. This supplier will conduct inspections for the following existing conditions:

1. Field verify existing hinge size, weight and location for new doors going into existing frames. Field verify existing strike locations. Furnish custom strikes as required for frames prepped with non-standard strikes.

D. Locations:

1. Dimensions are from finish floor to center line of items.
2. Include this list in Hardware Schedule.

CATEGORY DIMENSION

Hinges Door Manufacturer's Standard

Levers Door Manufacturer's Standard

Wall Stops/holders At Head

Astragals Pull side of active leaf

E. Final Adjustment:

1. Provide the services of a representative to inspect material furnished and its installation and adjustment, to make final hardware adjustment, and to instruct the Owner's personnel in adjustment, care and maintenance of hardware.
2. Locksets, closers and exit devices shall be inspected by the factory representative and adjusted after installation and after the HVAC system is in operation, to insure correct installation and proper adjustment in operation. The manufacturer's representative shall prepare a written report stating compliance, and also recording locations and kinds of noncompliance. The original report shall be forwarded to the Architect with copies to the Contractor, hardware distributor, hardware installer and building owner.

F. Technical and Warranty Information:

1. At the completion of the project, the technical and warranty information coalesced and kept on file by the General Contractor/Construction Manager shall be given to the Owner or Owner's Agent. In addition to both the technical and warranty information, all factory order acknowledgement numbers supplied to the General Contractor/Construction Manager during the construction period shall be given to the Owner or Owner's Agent. The warranty information and factory order acknowledgement numbers shall serve to both expedite and properly execute any warranty work that may be required on the various hardware items supplied on the project.
2. Submit to General Contractor/Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products.

3.2 Hardware Set:

8 EA HW HINGE 5BB1HW 4.5 X 4.5 652 IVE
1 EA KEYED REMOVABLE MULLION KR9954 689 VON
2 EA FIRE EXIT HARDWARE 98-L-F-996-03 626 VON
1 EA SFIC MORTISE CYL. 80-110 626 SCH
2 EA SFIC RIM CYLINDER 80-116 626 SCH
2 EA SURFACE CLOSER 4111 SCUSH 689 LCN
2 EA KICK PLATE 8400 10" X 2" LDW 630 IVE
1 SET SMOKE GASKET 2525B BRN NGP