

SECTION 08331 – OVERHEAD COILING DOORS - INLAND

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes manual overhead coiling doors.
- B. Related Sections include the following:
 - 1. Division 5 Section “Metal Fabrications for miscellaneous steel supports.

1.3 PERFORMANCE REQUIREMENTS

- A. Design Requirements:
 - 1. Wind Loading: Supply doors to withstand up to 20 psf maximum wind load.
 - 2. Cycle Life:
 - a. Design doors of standard construction for normal use of up to 20 cycle per day maximum.

1.4 SUBMITTALS

- A. Product Data: For each type and size of overhead coiling door and accessory.
 - 1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
 - 2. Include rated capacities, operating characteristics, and furnished accessories.
- B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
 - 1. Include plans, elevations, sections, and mounting details.
 - 2. Include details of equipment assemblies, and indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
 - 4. For exterior components, include details of provisions for assembly expansion and contraction and for excluding and draining moisture to the exterior.
 - 5. Show locations of controls, locking devices, and other accessories.

- C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.
 - 1. Include similar Samples of accessories involving color selection.
- D. Qualification Data: For Installer.
- E. Maintenance Data: For overhead coiling doors to include in maintenance manuals, including certificate stating that installed materials comply with this Specification.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.
- B. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC A117.1.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.

1.7 WARRANTY

- A. Standard Warranty: Two years from date of shipment against defects in material and workmanship.
- B. Maintenance: Submit for Owner's consideration and acceptance of a maintenance service agreement for installed products.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following HT approved manufacturer.
 - 1. Refer to Harris Teeter National Account Contact List.

2.2 MATERIALS

- A. Door Curtain Materials:
 - 1. Slats: No. 5F, 22 gauge, Grade 40 steel, ASTM A 653 galvanized steel zinc coating.
 - 2. Bottom Bar: Two 2 inches by 2 inches by 1/8-inch (50x50x3.2 mm) structural steel angles.
 - 3. Fabricate interlocking sections with high strength galvanized endlocks on alternate slats each secured with two 1/4-inch (6.35 mm) rivets. Provide windlocks as required to meet specified wind load.

4. Slat Finish:
 - a. GalvaNex™ Coating System to include an ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation of a chemical bonding, light gray baked-on polyester base coat and a light gray baked-on polyester finish coat. The scientific organic material composition and chemical bonding process of GalvaNex™ produces a superior finish against corrosion and abrasion. GalvaNex™ components include a limited two year finish warranty.
 5. Bottom Bar Finish:
 - a. Steel: Phosphate treatment followed by a light gray baked-on polyester powder coat; minimum 2.5 mils (0.065 mm) cured film thickness.
- B. Guides: Fabricate with structural steel angles. Provide windlock bars of same material when windlocks are required to meet specified wind load. Top of inner and outer guide angles to be flared outwards for smooth entry of curtain into guides. Provide removable guide stoppers to prevent over travel of curtain and bottom bar.
1. Top 16-½ inches (419.10 mm) of coil side guide angles to be removable for ease of curtain installation and as needed for future curtain service.
 2. Steel Finish:
 - a. Phosphate treatment followed by a light gray baked-on polyester powder coat; minimum 2.5 mils (0.065 mm) cured film thickness.
- C. Counterbalance Shaft Assembly:
1. Barrel: Steel pipe capable of supporting curtain load with maximum deflection of 0.03 inches per foot (2.5 mm per meter) of width.
 2. Spring Balance: Oil-tempered, heat-treated steel helical torsion spring assembly designed for proper balance of door to ensure that maximum effort to operate will not exceed 25 lbs. (110 N). Provide wheel for applying and adjusting spring torque.
- D. Brackets: Fabricate from minimum 3/16-inch (5 mm) steel plate with permanently lubricated ball or roller bearings at rotating support points to support counterbalance shaft assembly and form end closures.
1. Steel Finish:
 - a. Phosphate treatment followed by a light gray baked-on polyester powder coat; minimum 2.5 mils (0.065 mm) cured film thickness.
- E. Hood: 24 gauge galvanized steel with reinforced top and bottom edges. Provide minimum ¼-inch (6.35 mm) steel intermediate support brackets as required to prevent excessive sag.
1. Finish:
 - a. GalvaNex™ Coating System to include an ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation of a chemical bonding, light gray baked-on polyester base coat and a light gray baked-on polyester finish coat. The scientific organic material composition and chemical bonding process of GalvaNex™ produces a superior finish against corrosion and abrasion. GalvaNex™ components include a limited two year finish warranty.

F. Weatherstripping:

1. Bottom Bar: Replaceable, bulb-style, compressible EDPM gasket extending into guides.
2. Guides: Vinyl strip sealing against fascia side of curtain.
3. Hood: Neoprene/rayon baffle to impede air flow above coil.

2.3 ACCESSORIES

A. Locking:

1. Padlockable slide bolt on coil side of bottom bar at each jamb extending into slots in guides.

2.4 OPERATION

- A. Manual Chain Hoist: Provide chain hoist operator with endless steel chain, chain pocket wheel and guard, reared reduction unit, and chain keeper secured to guide.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates upon which work will be installed and verify conditions are in accordance with approved shop drawings.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.
- C. Commencement of work by installer is acceptance of substrate.

3.2 INSTALLATION

- A. General: Install door and operating equipment with necessary hardware, anchors, inserts, hangers and supports.
- B. Follow manufacturer's installation instructions.

3.3 ADJUSTING

- A. Following completion of installation, including related work by others, lubricate, test, and adjust doors for ease of operation, free from warp, twist, or distortion.

3.4 CLEANING

- A. Clean surfaces soiled by work as recommended by manufacturer.
- B. Remove surplus materials and debris from the site.

3.5 DEMONSTRATION

- A. Demonstrate proper operation to Owner's Representative.
- B. Instruct Owner's Representative in maintenance procedures.

END OF SECTION 08831

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SECTION 08380 – IMPACT TRAFFIC DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes interior high impact traffic door systems, hardware, and accessories.

1.3 STORAGE AND PROTECTION

- A. Retain high impact doors in manufacturer's standard shipping protection until installation. Store doors under cover and on minimum 4-inch high wood blocking.
- B. Avoid the use of non-vented plastic or canvas shelters that could create a humidity chamber. Provide VS-inch air space between stacked doors to promote air circulation.

1.4 SUBMITTALS

- A. Product Data: For each type of door and frame indicated. Include construction details relative to materials, individual components and profiles, finishes and fire ratings (if required) for access doors and frames.
- B. Shop Drawings: Show fabrication and installation details of traffic doors and frames. Include plans, elevations, sections, details and attachments to other work.

1.5 WARRANTY

- A. Two year warranty against product failures in materials and workmanship including structural failures, warping, faulty hardware, and deterioration of materials or finishes within two years of the date of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Purchase door from HT approved manufacturer.
 - 1. Refer to Harris Teeter National Account Contact List.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install high impact doors and accessories in accordance with manufacturer's written instructions. Coordinate sequence of installation with other work to avoid delays.
- B. Fit high impact doors and hardware accurately and securely in frames at manufacturer's recommended clearances.
- C. Remove and replace defective equipment, including defective or damaged doors and frames that are warped, bowed, or otherwise unacceptable to Contract Administrator.
- D. Final Adjustments: Check and adjust high impact doors and hardware to proper operating condition prior to final inspection.

END OF SECTION 08380

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SECTION 08461 - SLIDING AUTOMATIC ENTRANCE DOORS - INLAND / INTERIOR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Exterior and interior bi-parting-sliding, automatic entrance door assemblies.
- B. Related Sections include the following:
 - 1. Division 8 Section "Door Hardware" for hardware to the extent not specified in this Section.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide automatic entrance door assemblies capable of withstanding structural loads based on testing manufacturer's standard units in assemblies similar to those indicated for this Project.
- B. Structural Loads:
 - 1. Seismic Loads: As indicated on Structural Drawings.
- C. Operating Range: Minus 20 deg F to 130 deg F.
- D. Opening-Force Requirements:
 - 1. Egress Doors: Not more than 50 lbf required to manually set door in motion if power fails, and not more than 15 lbf required to open door to minimum required width.
 - 2. Accessible Interior Doors: Not more than 5 lbf.
- E. Closing-Force Requirements: Not more than 30 lbf required to prevent door from closing.

1.4 SUBMITTALS

- A. Maintenance Data: For door operators and control systems.

1.5 QUALITY ASSURANCE

- A. FM Compliance: Automatic Entrance Door assembly shall comply with all applicable Factory Mutual Standards, including fastening to building.

- B. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation and maintenance of units required for this Project.
- C. Power-Operated Door Standard: BHMA A156.10.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- E. Emergency-Exit Door Requirements: Comply with requirements of authorities having jurisdiction for automatic entrance doors serving as a required means of egress.
- F. Installation shall be approved by an AAADM certified inspector.

1.6 COORDINATION

- A. Coordinate size and location of recesses in concrete floors for recessed sliding tracks. Concrete, reinforcement, and formwork requirements are specified in Division 3 Section "Cast-in-Place Concrete".
- B. Templates: Obtain and distribute, to the parties involved, templates for doors, frames, and other work specified to be factory prepared for installing automatic entrance doors.

1.7 WARRANTY

- A. Special Assembly Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of automatic entrance door assemblies that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Faulty operation of operators, controls, and hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal use.
 - 2. Warranty Period: Three years from date of Substantial Completion.
- B. Special Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components on which finishes fail within specified warranty period. Warranty does not include normal weathering.
 - 1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1. Bi-parting-Sliding Units (SOSXSXSO) :
 - a. Refer to Harris Teeter National Account Contact List.

2.2 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - 1. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
 - 2. Sheet and Plate: ASTM B 209.
 - 3. Welding Rods and Bare Electrodes: AWS A5.10.
- B. Sealants and Joint Fillers: Refer to Division 7 Section "Joint Sealants."
- C. Nonmetallic, Shrinkage-Resistant Grout: Premixed, nonmetallic, noncorrosive, nonstaining grout; complying with ASTM C 1107; of consistency suitable for application.
- D. Bituminous Paint: Cold-applied, asphalt-mastic paint complying with SSPC-Paint 12 requirements, except containing no asbestos; formulated for 30-mil thickness per coat.

2.3 AUTOMATIC ENTRANCE DOOR ASSEMBLIES

- A. Sliding Door Package: Sliding door packages shall be complete including operator, sliding doors, sidelites, headers, jambs, thresholds, bottom door guides, and activation and safety sensors.
- B. Doors and Frames: All structural aluminum sections shall be 6063-T5 alloy with exposed surfaces anodized or painted to matching architectural finish. Extruded aluminum header and cover shall conceal replaceable roller track, and integrated anti-derail wheels. Door carrier assemblies shall incorporate four 1-1/2 inches diameter roller assemblies with sealed ball bearings. Concealed bottom door guides shall provide stable movement of sliding panels. Medium stile door and sidelite construction shall utilize 1-3/4 inches deep by 3-3/4 inches wide vertical profiles and 10 inch bottom rails. Weather pile shall run full height at front of sliding doors, back of sidelites, and between the doors and sidelites.
 - 1. Side jambs and transom framing shall be 1-3/4 inches by 4-1/2 inches.
- C. Operator: Door movement shall be driven by a sealed DC gear motor and nylon reinforced drive belt. The multifunction microprocessor control shall provide fully adjustable open, close, and check speeds. An adjustable hold open time delay (1-30 seconds) shall be provided. The microprocessor shall provide a self-monitored control of the door in compliance with ANSI 156.10 standards. A jamb mounted switch panel shall be provided as standard and shall have the following modes: Automatic, Close, Hold Open, Exit Only, and Partial Open. The operator shall allow the door to be opened manually in power off conditions. Optional battery pack shall automatically either open or close the door, or function as a backup to provide seamless operation in the event power is lost.
- D. Emergency Egress: Sliding doors and swing-out sidelites shall be capable of being swung out to 90° from any position of slide movement and require no more than 50 lbf. force applied at the lock stile to open. Units with this emergency egress feature comply with Chapter 5, Means of Egress, of Code for Safety from Fire in Buildings & Structures, NFPA 101.

- E. Security: The sliding doors shall be fitted with hookbolt locking. Single units will have 2-point locks with single action application into jamb, and carrier. Biparting units shall include a 2-point lock including both SX panels to each other, and one to the carrier. Units with swing-out sidelites shall incorporate mechanical interlocks between the sliding doors and sidelites to guard against forced entry when the unit is locked.
- F. Finish: All exposed surfaces shall be painted or anodized to match existing conditions. Verify in field.
- G. Safety and Activating Devices: Unit shall include ANSI compliant overhead activation and safety sensors.

2.4 REQUIREMENTS FOR WORK SPECIFIED IN OTHER SECTIONS

- A. Electrical: The General Contractor or Electrical Contractor shall furnish and install all wiring to the operator. Provide 120VAC, 60 Hz, 1 phase, 15 amp service to each operator header on a separate, dedicated circuit routed into the header.
- B. Glass and Glazing: Glazing bead and setting blocks shall be in compliance with ANSI Z97.1.
 - 1. 1/4-inch safety tempered float glass as specified.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Do not install damaged components. Fit frame joints to produce hairline joints free of burrs and distortion. Rigidly secure nonmovement joints. Seal joints watertight.
 - 1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose.
 - 2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- B. Entrances: Install automatic entrance doors plumb and true in alignment with established lines and grades without warp or rack of framing members and doors. Anchor securely in place in compliance with specific anchoring schedule as described on Miami-Dade NOA documentation.
 - 1. Install surface-mounted hardware using concealed fasteners to greatest extent possible.
 - 2. Set headers, carrier assemblies, tracks, operating brackets, and guides level and true to location with anchorage for permanent support.
 - 3. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.
 - 4. Level recesses for recessed thresholds using non-shrink grout.
 - 5. Anchor to structure in accordance with the Miami Dade Product approval details for the substrate provided.
 - 6. The installation shall be examined and certified by the independent testing laboratory to confirm the correct anchorage to the building structure.

- C. Door Operators: Connect door operators to electrical power distribution system as specified in Division 16 Sections.
- D. Activation and Safety Devices: Adjust devices to provide detection field and functions in compliance with ANSI 156.10.
- E. Glazing: Install glazing as specified in Division 8 Section "Glazing".
- F. Sealants: Comply with requirements specified in Division 7 Section "Joint Sealants" to provide weathertight installation.
 - 1. Set framing members, thresholds, bottom-guide track system, and flashings in full sealant bed.
 - 2. Seal perimeter of framing members with sealant.
- G. Signage: Provide caution signs on each automatic entrance door, visible from both sides of door. Mount caution signs with centerline 58 inches above finished floor.
 - 1. Emergency Breakaway Panels: In compliance with ANSI 156.10, provide emergency breakaway sign visible to egress side of each automatic entrance door and sidelite where indicated on site specific drawings, that has emergency breakaway capability. Mount signs adjacent to lock stile with centerline between 36 and 60 inches above finished floor.

3.2 FIELD QUALITY CONTROL

- A. Inspector: Engage Installer's certified inspector to test and inspect automatic entrance doors and prepare test and inspection reports.
- B. Testing Services: Certified inspector shall test and inspect each automatic entrance door to determine compliance of installed systems with applicable BHMA standards.
 - 1. Inspection Report: Certified inspector shall submit report in writing to Architect and Contractor within 24 hours after inspection.
- C. Repair or remove work where test results and inspections indicate that it does not comply with specified requirements.
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.3 ADJUSTING

- A. After door and glass is completely installed, adjust door operators, controls, and hardware for smooth and safe operation, for weathertight closure, and complying with requirements in BHMA A156.10.
- B. Lubricate operating hardware and other moving parts as recommended by manufacturer.

- C. Readjust door operators and controls if necessary after repeated operation of completed installation equivalent to 3 days' use by normal traffic (100 to 300 cycles). Lubricate hardware, operating equipment, and other moving parts.

END OF SECTION 08461

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SECTION 08711 - DOOR HARDWARE - INLAND

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Commercial door hardware for inland locations.

1.3 QUALITY ASSURANCE

- A. Supplier Qualifications: Person who is or employs a qualified DHI Architectural Hardware Consultant.
- B. Keys: Deliver keys to Owner
- C. Templates: Obtain and distribute templates for doors, frames, and other work specified to be factory prepared for installing door hardware.
- D. Standards: Comply with BHMA A156 series standards. Grade 1, unless Grade 2 is indicated.
- E. Certified Products: Provide door hardware that is listed in BHMA directory of certified products.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. Provide door hardware for each door as scheduled in "Door Hardware Schedule" Article on Drawings to comply with requirements in this Section.
 - 1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and named manufacturers' products. Manufacturers' names are abbreviated.
 - 2. References to BHMA Designations: Provide products complying with these designations and requirements for description, quality, and function.

2.2 PIVOTS AND HINGES

- A. Manufacturers:
 - 1. Hinges:
 - a. Hager Companies (H).

- b. McKinney Products Company; as Assa Abloy Group Company (MCK).
 - c. Stanley Commercial Hardware; Div. of The Stanley Works (STH).
- B. General: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.
- C. Non-removable Pins: Provide set screw in hinge barrel that prevents removal of pin while door is closed; for out-swinging exterior doors and out-swinging corridor doors with locks.
- D. Screws: Phillips flat-head screws; screw heads finished to match surface of hinges.
- 1. Metal Doors and Frames: Machine screws (drilled and tapped holes).
 - 2. Wood Doors and Frames: Wood screws.
 - 3. Fire-Rated Wood Doors: Threaded-to-the-head wood screws.

2.3 MECHANICAL LOCKS AND LATCHES

- A. Manufacturer: Subject to compliance with requirements, provide the following:
- 1. Best Access Systems; Div. of Stanley Security Solutions, Inc. (BE).
- B. Bored Lockset Design: As scheduled.
- C. Dummy Trim: Match knob lock trim and escutcheons.
- D. Lock Throw: Comply with labeled fire door requirements.
- E. Backset: 2-3/4 inches (70 mm), unless otherwise indicated.

2.4 BOLTS

- A. Fire-Rated Doors: Comply with labeled fire door requirements.
- B. Flush Bolts: BHMA Grade 1, unless Grade 2 is indicated, designed for mortising into door edge.
- 1. Manufacturers: Subject to compliance with requirements, provide the following:
 - a. Glynn-Johnson; an Allegion company (GJ).
 - b. Hager Companies (HAG).
 - c. Ives Hardware; an Allegion company (IVS).

2.5 EXIT DEVICES

- A. Manufacturer: Subject to compliance with requirements, provide the following:
- 1. Yale Security, Inc.; an Assa Abloy Group Co.; 2100F-F01.
- B. Panic Exit Devices: Listed and labeled for panic protection, based on testing according to UL 305.
- C. Fire Exit Devices: Complying with NFPA 80 that are listed and labeled for fire and panic protection, based on testing according to UL 305 and NFPA 252.

1. Dummy Push Bar: Non-functioning push bar matching functional push bar.
2. Outside Trim: Pull with cylinder; material, finish, and design to match locksets and latchsets, unless otherwise indicated.

2.6 OPERATING TRIM

A. Push-Pull Design: As scheduled.

1. Manufacturers: Subject to compliance with requirements, provide the following:
 - a. Hager Companies (HAG)
 - b. Ives Hardware; an Allegion company (IVS).

2.7 CLOSERS

A. Surface-Mounted Closers:

1. Manufacturers: Subject to compliance with requirements, provide the following:
 - a. LCN Closers; an Allegion company (LCN).
 - b. Norton Door Controls; an Assa Abloy Group Co. (NDC).
 - c. Sargent Manufacturing Co.; an Assa Abloy Group Co. (SGT).

2.8 PROTECTIVE TRIM UNITS

A. Protective Trim Units: Sized 1-1/2 inches (38mm) less than door width on push side and ½ inch (13mm) less than door width on pull side, by height scheduled or indicated. Fasten with exposed machine or self-tapping screws.

1. Material: Metal
 - a. Manufacturers: Subject to compliance with requirements, provide the following:
 - 1) Hager Companies (HAG)
 - 2) Rockwood Manufacturing Company (RM).

2.9 STOPS AND HOLDERS

A. Stops and Holders: Provide floor stops for doors, unless wall or other type stops are scheduled or indicated. Do not mount floor stops where they will impede traffic. Where floor or wall stops are not appropriate, provide overhead holders.

1. Manufacturers: Subject to compliance with requirements, provide the following:
 - a. Hager Companies (HAG).
 - b. Ives Hardware; an Allegion company (IVS).
 - c. Trimco. (T)

B. Silencers for Door Frames: Neoprene or rubber; fabricated for drilled-in application to frame.

2.10 DOOR GASKETING AND THRESHOLDS

A. Door Gasketing: Provide continuous weather-strip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated or scheduled. Provide non-corrosive fasteners for exterior applications and elsewhere as indicated.

1. Manufacturers: Subject to compliance with requirements, provide the following:
 - a. Gasketing and Door Bottoms:
 - 1) National Guard Products, Inc. (NGP).
 - 2) Pemko Manufacturing Co.; as Assa Abloy Group Co. (PEM).
2. Air Leakage: Not to exceed 0.50 cfm per foot (0.000774 cu. m/s per m) of crack length for gasketing other than for smoke control, as tested according to ASTM E 283.
3. Smoke-Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled, based on testing according to UL 1784.
4. Fire-Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled, based on testing according to UL 10B or NFPA 252.
5. Sound-Rated Gasketing: Assemblies that are listed and labeled based on testing according to ASTM E 1408.
6. Gasketing Materials: Comply with ASTM D 2000 and AAMA 701/702.

B. Thresholds: Of type scheduled or indicated.

1. Manufacturers: Subject to compliance with requirements, provide the following:
 - a. National Guard Products, Inc. (NGP).
 - b. Pemko Manufacturing Co.; as Assa Abloy Group Co. (PEM).

2.11 MISCELLANEOUS DOOR HARDWARE

- A. Boxed Power Supplies: Modular unit in NEMA ICS 6, Type 4 enclosure; filtered and regulated; and listed and labeled for use with fire alarm systems.

2.12 CYLINDERS, KEYING, AND STRIKES

- A. Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver.

1. Manufacturer:
 - a. Same manufacturer as for locks and latches.
2. Number of Pins: Six.
3. High-Security Grade: BHMA Grade 1 A, listed and labeled as complying with UL437 (Suffix A).
4. Manufacturer's standard; finish face to match lockset; removable cores.

- B. Keying System: Factory-registered keying system; master or grand master key system.

1. Keys: Provide nickel-silver keys permanently inscribed with a visual key control number and "DO NOT DUPLICATE" notation. In addition to one extra blank key for each lock, provide three change keys and five master or grand master keys.

- C. Strikes: Manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set.

2.13 FABRICATION

- A. Base Metals: 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 if different from specified standard.

- B. Fasteners: Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated. Provide steel machine or wood screws or steel through bolts for fire-rated applications.
- C. Spacers or Sex Bolts: For through bolting of hollow metal doors.
- D. Fasteners for Wood Doors: Comply with requirements of DHI WDHS.2, "Recommended Fasteners for Wood Doors".
- E. Finishes: Comply with BHMA A156.18.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Examine doors and frames for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- B. Steel Door and Frame Preparation: Comply with DHI A115 series. Drill and tap doors and frames for surface-applied hardware according to SDI 107.
- C. Wood Door Preparation: Comply with DHI A115-W series.
- D. Mounting Heights: Comply with the following requirements, unless otherwise indicated.
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. Custom Steel Doors and Frames: DHI's "Recommended Locations for Builders' Hardware for Custom Steel Doors and Frames."
 - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- E. Adjust and reinforce attachment substrates as necessary for proper installation and operation. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
 - 1. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. 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 so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.

3.2 FIELD QUALITY CONTROL

- A. Inspections: Owner will engage a qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.

3.3 DOOR HARDWARE SCHEDULE

- A. See Drawings for individual Hardware Sets.

END OF SECTION 08711

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