

SECTION 08311 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawing and general provisions of the 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. Wall access doors and frames.
 - 2. Fire-rated wall access doors and frames.
 - 3. Ceiling access doors and frames.
 - 4. Fire-rated ceiling access doors and frames.
- B. Related Sections include the following:
 - 1. Division 3 Section "Cast-in-Place Concrete" for blocking out openings for access doors and frames in concrete.
 - 2. Division 4 Section "Unit Masonry Assemblies" for anchoring and grouting access door frames set in masonry construction.
 - 3. Division 7 Section "Roof Accessories" for roof hatches.
 - 4. Division 8 Section "Door Hardware" for mortise or rim cylinder locks and master keying.
 - 5. Division 15 for heating and air-conditioning duct access doors.

1.3 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 customized doors and frames. Include plans, elevations, sections, details, and attachments to other Work.
- C. Samples: For each door face material, at least 3 by 5 inches in size, in specified finish.
- D. Schedule: Provide complete door and frame schedule, including types, general locations, sizes, construction details, latching or locking provisions, and other data pertinent to installation.
- E. Coordination Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items with concealed framing, suspension systems, piping, ductwork, and other construction. Show the following:

1. Method of attaching door frames to surrounding construction.
2. Ceiling-mounted items including access doors and frames, lighting fixtures, diffusers, grilles, speakers, sprinklers, and special trim.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain doors and frames through one source from a single manufacturer.
- B. Fire-Rated Access Doors and Frames: Units complying with NFPA 80 that are identical to access door and frame assemblies tested for fire-test-response characteristics per the following test method and that are labeled and listed by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction:
 1. NFPA 252 or UL 10B for vertical access doors.
 2. ASTM E 119 or UL 263 for horizontal access doors and frames.
- C. Size Variations: Obtain Architect's acceptance of manufacturer's standard-size units, which may vary slightly from sizes indicated.

1.5 COORDINATION

- A. Verification: Determine specific locations and sizes for access doors needed to gain access to concealed equipment, and indicate on schedule specified in "Submittals" Article.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 1. Access Doors:
 - a. Acudor Products, Inc.
 - b. Bar-Co, Inc. Div.; Alfab, Inc.
 - c. Cendrex, Inc.
 - d. Cesco Products.
 - e. Elmdor/Stoneman; Div. of Acorn Engineering Co.
 - f. Jensen Industries.
 - g. J. L. Industries, Inc.
 - h. Karp Associates, Inc.
 - i. Larsen's Manufacturing Company.
 - j. MIFAB Manufacturing, Inc.
 - k. Milcor Limited Partnership.
 - l. Nystrom Building Products Co.

- m. Precision Plumbing Products, Inc.
- n. Williams Bros. Corporation of America (The).

2.2 MATERIALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
- B. Hot-Rolled Steel Sheets: ASTM A 569/A 569M, Commercial Steel (CS), Type B; free of scale, pitting, and surface defects; pickled and oiled; with minimum thickness indicated representing specified nominal thickness according to ASTM A 568/A 568M.
- C. Cold-Rolled Steel Sheets: ASTM A 366/A 366M, Commercial Steel (CS), or ASTM A 620/A 620M, Drawing Steel (DS), Type B; stretcher-leveled standard of flatness; with minimum thickness indicated representing specified nominal thickness according to ASTM A 568/A 568M. Electrolytic zinc-coated steel sheet, complying with ASTM A 591/A 591M, Class C coating, may be substituted at fabricator's option.
- D. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B, with A60 (ZF180) zinc-iron-alloy (galvannealed) coating or G60 (Z180) mill-phosphatized zinc coating; stretcher-leveled standard of flatness; with minimum thickness indicated representing specified thickness according to ASTM A 924/A 924M.
- E. Drywall Beads: Edge trim formed from 0.0299-inch zinc-coated steel sheet formed to receive joint compound and in size to suit thickness of gypsum board.

2.3 PAINT

- A. Shop Primers: Provide primers that comply with Division 9 Section "Painting."
- B. Shop Primer for Ferrous Metal: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with performance requirements in FS TT-P-664; selected for good resistance to normal atmospheric corrosion, compatibility with finish paint systems indicated, and capability to provide a sound foundation for field-applied topcoats despite prolonged exposure.
- C. Shop Primer for Metallic-Coated Steel: Organic zinc-rich primer complying with SSPC-Paint 20 and compatible with topcoat.
- D. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint 20.

2.4 ACCESS DOORS AND FRAMES

- A. Flush, Insulated, Fire-Rated Access Doors and Frames with Exposed Trim: Fabricated from metallic-coated steel sheet.
 - 1. Locations: Masonry or concrete wall surfaces.

2. Fire-Resistance Rating: Same rating as wall.
 3. Temperature Rise Rating: 250 deg F (139 deg C) at the end of 30 minutes.
 4. Door: Flush panel with a core of mineral-fiber insulation enclosed in sheet metal with a minimum thickness of 0.036 inch.
 5. Frame: Minimum 0.060-inch thick sheet metal with 1-inch wide, surface-mounted trim.
 6. Hinges: Concealed pin type.
 7. Automatic Closer: Spring type.
 8. Lock: Key-operated lock with mortise cylinder, specified in Division 8 Section "Door Hardware," with interior release.
- B. Flush, Insulated, Fire-Rated Access Doors and Trimless Frames: Fabricated from metallic-coated steel sheet.
1. Locations: Gypsum board wall and ceiling surfaces.
 2. Fire-Resistance Rating: Same rating as wall or ceiling.
 3. Temperature Rise Rating: 250 deg F (139 deg C) at the end of 30 minutes.
 4. Door: Flush panel with a core of mineral-fiber insulation enclosed in sheet metal with a minimum thickness of 0.036 inch.
 5. Frame: Minimum 0.060-inch thick sheet metal with drywall bead.
 6. Hinges: Concealed pin type.
 7. Automatic Closer: Spring type.
 8. Lock: Key-operated lock with mortise cylinder, specified in Division 8 Section "Door Hardware," with interior release.
- C. Flush, Uninsulated, Fire-Rated Access Doors and Frames with Exposed Trim: Fabricated from metallic-coated steel sheet.
1. Locations: Masonry or concrete wall surfaces.
 2. Fire-Resistance Rating: Same rating as wall.
 3. Door: Minimum 0.060-inch thick sheet metal, flush construction.
 4. Frame: Minimum 0.060-inch thick sheet metal with 1-inch wide, surface-mounted trim.
 5. Hinges: Concealed pin type.
 6. Automatic Closer: Spring type.
 7. Lock: Key-operated lock with mortise cylinder, specified in Division 8 Section "Door Hardware," with interior release.
- D. Flush Access Doors and Frames with Exposed Trim: Fabricated from metallic-coated steel sheet.
1. Locations: Masonry or concrete wall surfaces.
 2. Door: Minimum 0.060-inch thick sheet metal, set flush with exposed face flange of frame.
 3. Frame: Minimum 0.060-inch thick sheet metal with 1-inch wide, surface-mounted trim.
 4. Hinges: Spring-loaded concealed pin type.
 5. Lock: Key-operated lock with mortise cylinder, specified in Division 8 Section "Door Hardware."
- E. Flush Access Doors and Trimless Frames: Fabricated from metallic-coated steel sheet.

1. Locations: Gypsum board wall and ceiling surfaces.
2. Door: Minimum 0.060-inch thick sheet metal, set flush with surrounding finish surfaces.
3. Frame: Minimum 0.060-inch thick sheet metal with drywall bead.
4. Hinges: Spring-loaded concealed pin type.
5. Lock: Key-operated lock with mortise cylinder, specified in Division 8 Section "Door Hardware."

F. Recessed Access Doors and Trimless Frames: Fabricated from metallic-coated steel sheet.

1. Locations: Gypsum board wall and ceiling surfaces.
2. Door: Minimum 0.060-inch thick sheet metal in the form of a pan recessed 5/8 inch (16 mm) for gypsum board infill.
3. Frame: Minimum 0.060-inch thick sheet metal with drywall bead for gypsum board surfaces.
4. Hinges: Spring-loaded concealed pin type.
5. Lock: Key-operated lock with mortise cylinder, specified in Division 8 Section "Door Hardware."

G. Exterior, Flush Access Doors and Frames: Weatherproof with extruded door gasket.

1. Locations: Masonry and concrete wall surfaces.
2. Door: Minimum 0.036-inch thick, metallic-coated steel sheet; flush panel construction with 2-inch thick fiberglass insulation.
3. Frame: Minimum 0.060-inch extruded aluminum.
4. Hinges: Continuous piano hinge, zinc plated.
5. Locks: Lockable dual-action handles.

2.5 FABRICATION

A. General: Provide access door assemblies manufactured as integral units ready for installation.

B. Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

C. Steel Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure access panels to types of supports indicated.

1. Exposed Flanges: Nominal 1 to 1-1/2 inches wide around perimeter of frame.
2. For trimless frames with drywall bead for installation in gypsum board assembly, provide edge trim for gypsum board securely attached to perimeter of frames.
3. For trimless frames with plaster bead for full-bed plaster applications, provide zinc-coated expanded metal lath and exposed casing bead welded to perimeter of frames.
4. Provide mounting holes in frames to attach frames to metal or wood framing in plaster and drywall construction and to attach masonry anchors in masonry construction. Furnish adjustable metal masonry anchors.

- D. Recessed Access Doors: Form face of panel to provide recess for application of applied finish. Reinforce panel as required to prevent buckling.
 - 1. For recessed doors with plaster infill, provide self-furring expanded metal lath attached to door panel.
- E. Latching Mechanisms: Furnish number required to hold doors in flush, smooth plane when closed.
 - 1. For cylinder lock, furnish two keys per lock and key all locks alike.
 - 2. For recessed panel doors, provide access sleeves for each locking device. Furnish plastic grommets and install in holes cut through finish.
 - 3. For doors with latches released by and locks operated by mortise cylinders, prepare access doors for cylinders specified in Division 8 Section "Door Hardware."

2.6 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish metal fabrications after assembly.

2.7 METALLIC-COATED STEEL FINISHES

- A. Galvanizing of Steel Shapes and Plates: Hot-dip galvanize items indicated to comply with applicable standard listed below:
 - 1. ASTM A 123/A 123M, for galvanizing steel and iron products.
 - 2. ASTM A 153/A 153M, for galvanizing steel and iron hardware.
- B. Surface Preparation: Clean surfaces with nonpetroleum solvent so surfaces are free of oil and other contaminants. For galvanized surfaces, apply, after cleaning, a conversion coating suited to the organic coating to be applied over it. For metallic-coated surfaces, clean welds, mechanical connections, and abraded areas, and apply galvanizing repair paint specified below to comply with ASTM A 780.
 - 1. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint 20.
- C. Factory Priming for Field-Painted Finish: Apply shop primer immediately after cleaning and pretreating.

2.8 STEEL FINISHES

- A. Surface Preparation: Prepare uncoated ferrous-metal surfaces to comply with minimum requirements indicated below for SSPC surface-preparation specifications and environmental exposure conditions of installed metal fabrications:
 - 1. Exteriors (SSPC Zone 1B): SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
 - 2. Interiors (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning."
- B. Apply shop primer to uncoated surfaces of metal fabrications. Comply with SSPC-PA 1, "Paint Application Specification No. 1," for shop painting.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Advise installers of other work about specific requirements relating to access door and floor door installation, including sizes of openings to receive access door and frame, as well as locations of supports, inserts, and anchoring devices.

3.2 INSTALLATION

- A. Comply with manufacturer's written instructions for installing access doors and frames.
- B. Set frames accurately in position and attach securely to supports with plane of face panels aligned with adjacent finish surfaces.
- C. Install access doors with trimless frames flush with adjacent finish surfaces or recessed to receive finish material.

3.3 ADJUSTING AND CLEANING

- A. Adjust doors and hardware after installation for proper operation.
- B. Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

END OF SECTION 08311