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SECTION 08 1213.17
PREFINISHED STEEL DOOR FRAMES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Prefinished steel door frames.
- B. [Sidelites] [, borrowed lites] [, and transom] assemblies.

1.02 RELATED REQUIREMENTS

- A. Section 06 2000 – Finish Carpentry: Wood casings.
- B. Section 08 1113 – Hollow Metal Doors and Frames: Metal doors.
- C. Section 08 1416 – Flush Wood Doors.
- D. Section 08 1613 – Fiberglass Doors.
- E. Section 08 7100 – Door Hardware.
- F. Section 08 8000 – Glazing: Glass and glazing.

1.03 REFERENCE STANDARDS

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- C. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames; 2003 (R2009).
- D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2017.
- E. ASTM B117 – Standard Practice for Operating Salt Spray (Fog) Apparatus; 2016.
- F. ASTM D714 - Standard Test Method for Evaluating Degree of Blistering of Paints; 02(2017).
- G. ASTM D1654 - Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments; 08(2016) e1.
- H. ASTM D2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact); 93(2010).
- I. ASTM D3363 - Standard Test Method for Film Hardness by Pencil Test; 05(2011) e2.
- J. BHMA/ANSI A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2016.
- K. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2016.
- L. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.

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- B. Product Data: Submit product data, including manufacturer's product sheet, for specified products. Include details of design and construction and installation instructions.
- C. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors and textures.
 - 1. Indicate installation requirements of finish hardware and reinforcements.
- D. Samples: Submit the following for selection and verification of finishes, colors and textures.
 - 1. Sample of door frame construction, complete with snap-on casings.
 - 2. Samples of factory stocked colors of prefinished components.
 - 3. Samples of custom colors for color matching.
- E. Certificate: Certify that products of this section meet or exceed specified requirements.
- F. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties
- G. Manufacturer's Qualification Statement.
- H. Installer's Qualification Statement.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company experienced in performing work of this section with not less than three years of experience in installation of work similar to this project.
- C. Testing Agencies: Fire-rated steel frames shall be of types tested and approved by Intertek Testing Services, Warnock Hersey and shall bear labels of same.
 - 1. Three-sided frames shall receive Warnock Hersey Mark for applicable fire rating label.
 - 2. Sidelite and borrowed lite frames shall receive Warnock Hersey Mark for applicable fire rating label.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
 - 1. Factory package components in protective cartons to prevent damage during shipping.
- B. Store materials protected from exposure to harmful weather and at temperature conditions recommended by manufacturer.
 - 1. Store material on wooden skids under cover in a protected area and keep vented to avoid condensation until ready for installation.

1.07 FIELD CONDITIONS

- A. Field Measurements: Verify size of openings by field measurements before fabrication, and show recorded measurements on shop drawings.
- B. Coordinate field measurements and fabrication schedule with construction progress schedule to avoid construction delays.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Prefinished Steel Door Frames:
 - 1. International Door Products Inc. (IDP Inc.).
 - 2. Address: 21300 West 8 Mile Rd., Southfield, MI 48075.
 - 3. Phone: (248) 352-0044.
 - 4. Fax: (248) 352-4222.
 - 5. Website: www.idpframes.com.

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6. Email: info@idpframes.com.
7. Obtain prefinished steel door frames from single manufacturer.

2.02 PREFINISHED STEEL DOOR FRAMES WITH APPLIED CASINGS

- A. Frames: Fabricated from corrosion resistant galvanized steel in accordance with ASTM A653/A653M with separate jamb and head and snap-on casings for both sides to conceal fasteners.
1. Metal Thickness: 18 gage, 0.0478 inch (1.21 mm), nominal.
 2. Door Thickness: [As indicated on drawings] [1-3/8 inch (35 mm)] [1-3/4 inch (44.5 mm)].
 3. Wall Thickness: [As indicated on drawings] [4-1/2 inch (114.3 mm), minimum wall thickness for 90 minute fire rating] [_____].
 4. Fire Rating: [As indicated on drawings] [90 minutes] [45 minutes] [20 minutes], and tested in accordance with UL 10C for positive pressure fire tests and certified by Warnock Hersey.
 5. Applications: [As indicated on drawings] [Frames only] [Frames and sidelites] [Frames, sidelites, and borrowed lites] [_____].
 6. Provide accessories and fasteners as necessary for field assembly and installation in accordance with frame manufacturer's standards.
 7. Prepare for reinforcements as provided in accordance with manufacturer's standards as required to receive finished hardware.
 8. Fabricate jamb to interlock with header piece and forming strong joint.
 9. Fabricate sidelite and borrowed lite frames as specified for door frames, and provide concealed field applied mullion clips for securing mullions to head/jamb members.
 10. Form fixed glazing stops integral with frame members, and provide removable metal stops with pre-punched screw holes and installation screws.
- B. Standard Steel Door Fixed Frames for Interior and Exterior Applications:
1. Frame Type: [As indicated on drawings] [Single rabbet] [Double rabbet] [Cased opening] [Pocket door frame] [_____].
 2. Door Type: [As indicated on drawings] [Standard door] [Pocket door] [_____].
 3. Product: **Entry Fit™ F-Series** by International Door Products Inc. (IDP Inc.).
 - a. Substitutions: [See Section 01 6000 – Product Requirements] [Not permitted].
- C. Kerfed Steel Door Fixed Frames for Interior and Exterior Applications:
1. Frame Type: [As indicated on drawings] [Double rabbet] [_____] with kerf in door stop for attachment of weatherstripping.
 2. Door Type: [As indicated on drawings] [Standard door] [_____].
 3. Product: **Entry Fit™ KF-Series** by International Door Products Inc. (IDP Inc.).
 - a. Substitutions: [See Section 01 6000 – Product Requirements] [Not permitted].
- D. Adjustable Split Double Rabbet Kerfed Steel Door Frames for Interior and Exterior Applications:
1. Frame Type: [As indicated on drawings] [Double rabbet] [_____] with kerf cut in door stop for attachment of weatherstripping.
 2. Door Type: [As indicated on drawings] [Standard door] [_____].
 3. Closure Trim: [22 gage, 0.0299 inch (0.76mm), nominal] [18 gage, 0.0478 inch (1.21 mm), nominal] thickness, with 16 gage, 0.0598 inch (1.52 mm) thick retainer, projection welded six places on each jamb and three places on header.
 4. Product: **Entry Fit™ K2A-Series** by International Door Products Inc. (IDP Inc.).
 - a. Substitutions: [See Section 01 6000 – Product Requirements] [Not permitted].
- E. Adjustable Double Rabbet Steel Door Frames for Interior Applications:
1. Frame Type: [As indicated on drawings] [Double rabbet] [_____].
 2. Door Type: [As indicated on drawings] [Standard door] [_____].
 3. Closure Trim: [22 gage, 0.0299 inch (0.76mm), nominal] [18 gage, 0.0478 inch (1.21 mm), nominal] thickness, with 16 gage, 0.0598 inch (1.52 mm) thick retainer, projection welded six places on each jamb and three places on header.
 4. Product: **Entry Fit™ NK2A-Series** by International Door Products Inc. (IDP Inc.).
 - a. Substitutions: [See Section 01 6000 – Product Requirements] [Not permitted].
- F. Casings: Provide die cut mitered metal casings held tight together and in alignment with concealed corner backing pieces.

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1. Steel: 22 gage, 0.0299 inch (0.76 mm) thick galvanized steel in accordance with ASTM A653/A653M.
 - a. Width: 1-7/16 inch (36.8 mm), nominal.
 - b. Height: 5/16 inch (8.6 mm), nominal.
 - c. Finish: Prefinished casing to match frame.
 2. Aluminum: 16 gage, 0.050 inch (1.27 mm) thick extruded aluminum alloy 6063-T5 temper.
 - a. Width: 1-1/2 inch (38 mm), nominal.
 - b. Height: 7/16 inch (11 mm), nominal.
 - c. Finish: Prefinished casing to match frame.
 3. Steel Colonial: 22 gage, 0.0299 inch (0.76 mm) thick galvanized steel in accordance with ASTM A653/A653M.
 - a. Width: 1-3/4 inch (45.2 mm), nominal.
 - b. Shaped Colonial Style: 9/16 inch (14.7 mm), nominal, on wider side.
 - c. Finish: Prefinished casing to match frame.
- G. Wood Casing: [Medium density fiberboard (MDF)] [Poplar] [Oak] [Cherry] [_____] wood type and profile [as indicated on drawings] [_____].
1. Refer to Section 06 2000.

2.03 FINISHES

- A. Factory Finish: Factory primed with 3 mil, 0.003 inch (0.076 mm) dry film thickness (DFT) and premium quality powder coated finish conforming to AAMA 2604 applied over cleaned and phosphate coated surface using electrostatic method.
1. Impact Resistance: Meets 100 inch lbs (110.8 meter kilograms) in both direct and reverse in accordance with ASTM D2794.
 2. Salt Spray and Humidity Tests: Factory finished paint passes salt spray test conforming to ASTM D1654 and 3000 hour humidity test conforming to ASTM D714 with no blistering.
 3. Paint Hardness: Factory finish paint meets calibrated pencil test conforming to ASTM D3363 for film hardness.
 4. Color: [IDP White] [IDP Brown] [Satin Black] [Sky White] [Pale Brown] [Polar White] [RAL 1013] [RAL ____] [_____].
- B. Factory Primed: Factory primed, ready for field applied finish.
1. Field paint prime painted frames within 30 days of installation with a good quality oil based enamel as recommended, or a high quality water base latex; use flash rust inhibitor with water base latex method.
 2. Color: White.

2.04 ACCESSORIES

- A. Hardware Preparations: Conforming to approved hardware schedule, BHMA/ANSI A156.115, and manufacturer's recommendations.
1. Mortise frames for hinges and strikes.
 2. Drill and tap or reinforce frames for mortised or surface mounted hardware.
 3. Refer to Section 08 7100.
- B. Hardware Reinforcing: Conform to ANSI/SDI A250.6 recommended practices.
1. Standard Hinges: 4-1/2 inch (114.3 mm) high, and 10 gage, 0.1345 inch (3.42 mm) thick galvanized steel in accordance with ASTM A653/A653M.
 2. 4 inch and 3-1/2 inch High Hinges: 11 gage, 0.1196 inch (3.04 mm) thick steel in accordance with ASTM A653/A653M.
 3. Strikes and Deadbolt Covers: 11 gage, 0.1196 inch (3.04 mm) thick steel in accordance with ASTM A653/A653M.
 4. Door Closer Reinforcement: Steel or aluminum in accordance with manufacturer's standard.
 5. Standard Arm Mounting: Extruded aluminum alloy 6063-T5 temper in accordance with manufacturer's standard.
 6. Door Guard: Extruded aluminum alloy 6063-T5 temper in accordance with manufacturer's standard.
 7. Parallel Mounted Arm, Field Installed: 12 gage, 0.1046 inch (2.66 mm) thick, galvanized steel in accordance with ASTM A653/A653M.
- C. Casing Corner Alignment Clips: Injection molded plastic.

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- D. Clear Adhesive Silencers, Weatherstripping and Smoke Gasketing (Standard Profile): In accordance with manufacturer's standard.
 - 1. Interior Frames: Install clear adhesive silencers on header and strike jamb; single door opening, one per header, two per strike jamb; pair door opening, two per header.
- E. Exterior and Fire-Rated Frames: Provide weatherstripping and smoke gasket material to seal opening; material must compress to 1/16 inch (1.59 mm) thick.
- F. Kerf Profile Weatherstripping and Smoke Gasketing: At interior and exterior frames, provide kerf profile weatherstripping to seal opening.
 - 1. Acceptable Product: Schlegel QEBD 50 or approved equivalent.
- G. Removable Glazing Bead for Sidelite and Borrowed Lite Frames: 16 gage, 0.0598 inch (1.52 mm) thick galvanized A60/ZF180 steel in accordance with ASTM A653/A653M, 5/8 inch (15.9 mm) by 5/8 inch (15.9 mm), and prepunched for #6 by 1-1/4 inch (31.8 mm) long bugle-head self-tapping screws.
- H. Door Sill: Extruded aluminum with manufacturer's standard finish, compliant with ADA Standards [saddle type] [tile back type] [5 inch (127 mm) wide] [6 inch (152 mm) wide] [7 inch (178 mm) wide] [8 inch 201 mm wide] [high sill type] [, with 1 inch (25.4 mm) sill extension] [, with 2 inch (51 mm) sill extension].
- I. Hollow Metal Doors: Refer to Section 08 1113.
- J. Flush Wood Doors: Refer to Section 08 1416.
- K. Fiberglass Doors: Refer to Section 08 1613.
- L. Glass and Glazing: Refer to Section 08 8000.

PART 3 - EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Verify that substrate conditions of previously installed work are acceptable for product installation in accordance with manufacturer's instructions.
- B. Verify opening and dimensions with shop drawings, and use door as template to ensure proper alignment and clearances.

3.02 INSTALLATION

- A. Install prefinished steel door frames plumb and square, in accordance with shop drawings and manufacturer's instructions.
- B. Attach hinges and hang door in frame, and adjust frame to door for equal and uniform clearance between top and sides of door and frame.
- C. Secure frame to wall with appropriate type of fasteners.
- D. Install casing on frame.
- E. Install silencers on interior door frames.
- F. Install weatherstripping on exterior door frames.
- G. Install smoke gaskets as required.
- H. Adjust strike plate to hold door tight to stops when closed.
- I. Install fire-rated door frames in accordance with NFPA 80.

3.03 CLEANING

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas.

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- B. Repair or replace damaged installed products, and clean installed products in accordance with manufacturer's instructions prior to Date of Substantial Completion.
- C. Remove construction debris from project site and legally dispose of debris. [See Section 01 7419 - Construction Waste Management and Disposal for additional requirements.]

3.04 PROTECTION

- A. Protect installed product and finish surfaces from damage until Date of Substantial Completion.
- B. Repair or replace damaged or defective frames.
- C. Touch up damaged areas of factory-applied finishes with aerosol spray of color and paint to match.

END OF SECTION