

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Base Bid: Unless noted otherwise, the General Prime Contractor shall provide all labor and materials for the complete installation of work as specified in this section.
 - 1. Interior swinging and sliding all-glass entrance doors.
 - 2. Interior all-glass storefronts.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 RELATED WORK

- 1. Division 5 Section "Metal Fabrications" for overhead-steel support for all-glass systems.
- 2. Division 8 Section "Door Hardware."
- 3. Division 8 Section "Glazing."

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project Site.

1.5 SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for all-glass system.
- B. Shop Drawings: For all-glass entrances and storefronts.
 - 1. Include plans, elevations, and sections.
 - 2. Include details of fittings and glazing, including isometric drawings of patch fittings and rail fittings.
 - 3. Door hardware locations, mounting heights, and installation requirements.
- C. Samples: For each type of exposed finish indicated.

- D. Entrance Door Hardware Schedule: Prepared by or under supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams. Coordinate final entrance door hardware schedule with doors and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.
- E. Delegated-Design Submittal: For all-glass systems indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- F. Qualification Data: For Installer.
- G. Product Test Reports.
- H. Maintenance data.
- I. Warranty: Sample of special warranty

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.
 - 1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.
- C. Engineering Responsibility: Prepare data for all-glass systems, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in systems similar to those indicated for this Project.
- D. Source Limitations: Obtain all-glass systems from single source from single manufacturer

1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of all-glass systems that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion, except as follows:
 - a. Concealed Floor Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: All-glass systems shall withstand the effects of the following performance requirements without exceeding performance criteria or failure due to defective manufacture, fabrication, installation, or other defects in construction.
- B. Delegated Design: Design all-glass systems, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

2.2 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. DAMS Incorporated; D. Architectural Metal Solutions Incorporated.
 - 2. Oldcastle BuildingEnvelope™.
 - 3. Trulite Glass & Aluminum Solutions, LLC.
- B. Drawings and specification are based on Oldcastle BuildingEnvelope's All Glass Entrance System. Product is tempered glass swing safety entrances and hybrid sliding entrances, "Style P" with continuous top and bottom rails. Sliders are based on Hawa Jr. Hybrid hardware as provided by Oldcastle's Perrysburg, Ohio location. Item specified is to establish a standard of quality for design, function, materials, and appearance. Each manufacturer listed above has an equivalent product available.

2.3 METAL COMPONENTS

- A. Fitting Configuration:
 - 1. Manual-Swinging, All-Glass Entrance Doors and Sidelights. Continuous rail fitting at top and bottom.
 - 2. Manual-Sliding, All-Glass Entrance Doors and Sidelights. Continuous rail fitting at top and bottom.
 - 3. All-Glass Storefronts: Continuous rail fitting at top and bottom.
- B. Patch Fittings: Stainless-steel-clad aluminum.
- C. Rail Fittings:
 - 1. Material: Stainless-steel-clad aluminum.
 - 2. Height:
 - a. Top Rail: As indicated.
 - b. Bottom Rail: As indicated.
 - 3. Profile: As indicated.
 - 4. End Caps: Manufacturer's standard precision-fit end caps for rail fittings.

- D. Accessory Fittings: Match patch- and rail-fitting metal and finish for the following:
 - 1. Overhead doorstop.
 - 2. Center-housing lock.
- E. Anchors and Fastenings: Concealed.
- F. Weather Stripping: Pile type; replaceable without removing all-glass entrance doors from pivots.
- G. Materials:
 - 1. Stainless-Steel Cladding: ASTM A 666, Type 304.
 - a. Finish: No. 4 directional satin finish.

2.4 GLASS

- A. Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), tested for surface and edge compression per ASTM C 1048 and for impact strength per 16 CFR 1201 for Category II materials.
 - 1. Class 1: Clear monolithic.
 - a. Thickness: 5/8" at 8'-0" high installations (Glass type S-1), 3/4" at 10'-0" installations (Glass type S-2).
 - b. Locations: As indicated.
 - 2. Exposed Edges: Machine ground and flat polished.
 - 3. Butt Edges: Flat ground.
 - 4. Corner Edges: Lap-joint corners with exposed edges polished.
 - 5. See Division 08 Section "Glazing."
- B. Silicone Gaskets: Extruded, clear, silicone gasket. Doralco, E-Z Glaze glass soundstrips, or manufacturers recommended equivalent.
- C. Aluminum Extrusions: ASTM B 221, with strength and durability characteristics of not less than Alloy 6063-T5.
 - 1. Stainless-Steel Cladding: ASTM A 666, Type 304.

2.5 ENTRANCE DOOR HARDWARE - SWINGING

- A. General: Heavy-duty entrance door hardware units in sizes, quantities, and types recommended by manufacturer for all-glass entrance systems indicated. For exposed parts, match metal and finish of patch and rail fittings.
- B. Concealed Overhead Closers and Top Pivots: Center hung; BHMA A156.4, Grade 1; including cases, bottom arms, top walking beam pivots, plates, and accessories required for complete installation. 90 degree hold-open capability.

1. Swing: Single acting.
 - a. Positive Dead Stop: Coordinated with hold-open angle.
 2. Opening-Force Requirements:
 - a. Accessible Interior Doors: Not more than 5 lbf to fully open door.
 3. Door opening shall meet ADA clear-width requirements. Manufacturer shall advise Architect if pivot hardware for 36" door as specified reduces open clear width below ADA-compliant minimum.
- C. Handles for Swing Door (door not to receive exit device): Back-to-Back "C" Pulls.
- D. Single-Door and Active-Leaf Locksets: Bottom-fitting or bottom-rail deadbolt.
1. Deadbolt operated by key outside and thumb turn inside.
- E. Cylinders: As specified in Section 087100 "Door Hardware".
- F. Exit Devices: UL 305.
1. Function: Operation by push-pull when inside operator is locked down (dogged). Operation by key or card reader access from exterior. Top-securing panic handle.
 2. Latching: At door head.
 3. Handle on exterior side to be "F" Style Fixed Pull Handle, full height.
 4. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Blumcraft (C.R. Laurence): PA100F
 - b. Dorma: DG1000
 - c. PRL Glass: Herculite Panic Device.
 5. Electric Strike: Provide to coordinate with panic device.
 6. Door position switch
 7. Door contact to be tied into building security system.
 8. Provide hardware necessary to coordinate with balance of hardware specified in Division 8 section "Door Hardware."
- G. Threshold: Not more than 1/2 inch high.

2.6 ENTRANCE DOOR HARDWARE - SLIDING

- A. General: Heavy-duty entrance door hardware units in sizes, quantities, and types recommended by manufacturer for all-glass entrance systems indicated. For exposed parts, match metal and finish of patch and rails.
- B. Manual-Sliding Entrance Door Hardware: Manufacturer's standard for sliding action indicated and with twin rollers.
1. Type: Top Hung.
 2. Sliding hardware to be provided by all-glass entrance system manufacturer and integrate with that system.
 3. Floor guide: Finish to match door system.
 4. Handles: Back-to-Back "C" Pulls.
 5. Sliding doors shall not receive locking hardware.

- 6. Coordinate hardware with that specified in Division 8 section "Door Hardware."
- C. Provide blank square tubes as shown in door and glazing head details in drawings so that sight lines of glazing and doors align.
- D. Threshold: Not more than 1/2 inch high.

2.7 BUTT-GLAZING SEALANTS

- A. Single-Component, Nonsag, Acid-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Uses NT, G, and A.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Bostik, Inc.
 - b. Dow Corning Corporation.
 - c. Pecora Corporation.
 - d. Tremco Incorporated.
 - 2. All sealants shall be per All-Glass Entrance System manufacturer requirements.

2.8 FABRICATION

- A. Provide holes and cutouts in glass to receive hardware, fittings, and accessory fittings before tempering glass. Do not cut, drill, or make other alterations to glass after tempering.
 - 1. Fully temper glass using horizontal (roller-hearth) process, and fabricate so that when glass is installed, roll-wave distortion is parallel with bottom edge of door or lite.
- B. Factory-assemble components and factory install hardware and fittings to greatest extent possible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install all-glass systems and associated components according to manufacturer's written instructions.

- B. Set units level, plumb, and true to line, with uniform joints.
- C. Maintain uniform clearances between adjacent components.
- D. Lubricate hardware and other moving parts according to manufacturer's written instructions.
- E. Set, seal, and grout floor closer cases as required to suit hardware and substrate indicated.
- F. Install butt-joint sealants according to manufacturer's instructions and as specified in Section 079200 "Joint Sealants" to produce weathertight installation.

3.3 ADJUSTING AND CLEANING

- A. Adjust all-glass entrance doors and hardware to produce smooth operation and tight fit at contact points and weather stripping.
 - 1. For all-glass entrance doors accessible to people with disabilities, adjust closers to provide a three-second closer sweep period for doors to move from a 70-degree open position to 3 inches from the latch measured to the leading door edge.
- B. Remove excess sealant and glazing compounds and dirt from surfaces.

END OF SECTION 08 41 26

