**SECTION 08 4210**

**1202 SERIES ALL GLASS ENTRANCES**

**PART 1 - GENERAL**

1.01 **SUMMARY**

 A. This section includes:

1. Interior entrance doors.

2. Sidelites.

 B. Related work in other sections:

1. Panic Handles, Deadbolt Handles, Locking Ladder Pulls, and Push/Pull

 Handles for tempered glass entrance doors are specified in Division 08 7100

 section “Door Hardware”. Some limitations may apply due to finished door height.

1.02 **SUBMITTALS**

 A. Product Data: Submit Manufacturer’s product data for all glass entrance systems

including:

1. Manufacturer’s standard details and fabrication method.

2. Data on finishing, hardware and accessories.

3. Recommendations for maintenance and cleaning of exterior finish surfaces.

4. Test data on fabricated door.

 B. Shop drawings for each all glass entrance system are required, including:

1. Layout and installation details.

2. Elevations at 1/4-inch scale.

3. Detail sections of Wedge-Lock™ Glass Securing System.

4. Hardware mounting heights.

5. Anchorage and reinforcement.

6. Glazing details.

 C. Samples for approval:

1. Submit pairs of samples of each specified metal color and finish on 9-inch long

sections of extrusions or formed shapes.

2. Submit samples of glass approximately 12 inches square showing the edge

conditions.

1.03 **QUALITY ASSURANCE**

 A. Installer qualifications: Engage an experienced installer who has completed installations

 of all glass entrances similar in design and extent to those required for the project and

 whose work has resulted in construction with a record of successful in service

 performance.

 B. Manufacturer’s qualifications: Provide all glass entrances produced by a firm experienced

 in manufacturing entrance systems that are similar to those indicated for this project and

 that have a record of successful in-service performance. All door systems must be

 tested.

 C. Single source responsibility: Obtain all glass entrance systems from a single

 manufacturer to ensure full compatibility and warranty of parts.

 D. Design criteria: The drawings indicate the size, profile and dimensional requirements of

 the all glass entrance system required and are based on the specific types and models

 indicated. All glass entrances by other manufacturers may be considered, provided

 deviations in dimensions and profiles are minor and do not change the design concept as

 judged by the Architect. The burden of proof of equality is on the proposer.

 E. Safety glass standard: Provide tempered glass components that comply with ANSI Z97.1

 and testing requirements of CPSC 16CFR Part 1201 for Category II materials.

1.04 **DELIVERY, STORAGE, AND HANDLING**

 A. Deliver all glass entrances and related components in the manufacturer’s original

 protective packaging. Do not deliver entrance units until the work is ready for their

 installation.

1. Inspect components for damage upon delivery. Unless minor defects in metal components can be made to meet the Architect’s specifications and satisfaction, damaged parts should be removed and replaced.

1.05 **PROJECT CONDITIONS**

 A. **Field Measurements:** Check opening by accurate field measurement before fabrication.

Show recorded measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of the work and possible damage to the finished

product.

1. Where necessary, proceed with fabrication without measurement and coordinate fabrication tolerances to insure proper fit.

**PART 2 - PRODUCTS**

2.01 **ACCEPTABLE MANUFACTURER’S**

 A. Basis of design: Design is based on the 1202 Series “All-Glass” Entrance Door System

 available up to 8’-0” (2.44 m) high manufactured by:

**C.R. Laurence Co., Inc. (CRL) / Blumcraft**

Tel: (800) 421-6144 Fax: (800) 587-7501

Email: architectural@crlaurence.com

 [www.crlaurence.com](http://www.crlaurence.com)

 B. Subject to compliance with requirements, “all-glass” entrances from other manufacturers

meeting the specified requirements may be acceptable.

2.02 **MATERIALS**

 A. LEED® requirements:

 1. Recycled Content Materials: Provide building materials with recycled content

 such that post-consumer recycled content plus one-half of pre-consumer

 recycled content constitutes a minimum of 20 percent of the cost of materials

 used for the project. See LEED® Green Building Rating System.

 2. Regional Materials: Provide a minimum of 10 percent (based on cost) of building

 materials that are regionally extracted, processed, and manufactured.

B. Aluminum Clad, Stainless Steel Clad, Brass or Bronze Clad

C. Glass and Glazing

* 1. Comply with ASTM C1048, Kind FT (fully tempered), Condition A

(uncoated), Type I (transparent, flat), Class 1 (clear), Quality q3

glazing select). Provide glass complying with requirements of

CPSC 16CFR, Part 1201 for Category II materials.

* 1. Thickness: 3/8” to 1/2” (10 to 12 mm) only in clear, solar bronze, solar gray, Starphire low-iron

 or satin etch.

* 1. All glass fabrication to be completed before tempering.
	2. Exposed edges to be bright flat polish.
	3. Glass to be tempered horizontally, visible tong marks or tong mark distortions are

 not permitted.

2.03 **HARDWARE**

1. **Vertical Stile:** 2” (51 mm) diameter full height of door.

B. **Handles and Locks:** Refer to Section 08 7100 Door Hardware for hardware set,

application, and finish as selected by the Architect and supplied by **C.R. Laurence.**

C. **Closers:** integrated closer in the vertical stile of the door.

 D. **Sidelite Systems:** Provide sidelite systems with matching glass.

 E. **Anchors and Fasteners:** Manufacturer’s standard concealed anchors and fastenings.

 Do not use exposed fasteners.

 F. **Weather stripping:** Can be applied to edges of glass or vertical stile to help reduce air infiltration. The weather stripping shall be pile and replaceable without removing doors from opening.

2.04 **FABRICATION**

 A. General: Fabricate all glass entrance components to designs and sizes indicated. Size of

door and profile requirements of hardware are indicated on the drawings.

1. Locate and provide holes and cutouts in glass to receive hardware before

 tempering glass. Do not permit cutting, drilling or other alterations to glass after

 tempering.

2. Fabricate work to accommodate required hardware, anchors, reinforcement, and

 accessory items.

 B. **Prefabrication:** Complete fabrication, assembly, finishing, hardware application and

other work to the greatest extent possible before shipment to the project site.

 Disassemble components only as necessary for shipment and installation.

 C. **Continuity:** Maintain accurate relation of planes and angles with hairline fit of contracting

 members.

2.05 **MATERIAL FINISHES**

1. Aluminum Clad:

 1. Satin clear anodized

 2. Black bronze anodized

 3. Powder coated (specify color)

1. Stainless Steel Clad:
	1. Satin #4 directional polish (US32D)
	2. Highly polished #8 non-directional (US32)
2. Naval Bronze Clad:
	1. Satin directional polish (US10)
	2. Highly polished non-directional (US9)
	3. Statuary (US10B)
3. Brass Clad:

 1. Satin directional polish (US4)

 2. Highly polished non-directional (US3)

### PART 3 - EXECUTION

* 1. **EXAMINATION**

 A. Examine substrates and supports with the installer, present for compliance with

 requirements indicated, installation tolerances and other conditions that affect the

 installation of all glass entrances and storefronts. Correct unsatisfactory conditions before

 proceeding with the installation.

 1. Do not proceed with installation until unsatisfactory conditions are corrected.

3.02 **INSTALLATION**

 A. Install all glass entrance door and associated components in accordance with

 manufacturer’s printed instructions and recommendations.

 1. Verify unit is level, plumb and true line.

 2. Lubricate hardware and other moving parts as required.

3.03 **ADJUSTING**

 A. Adjust doors and hardware to provide a tight fit at meeting points and at weather-stripping

 for smooth operation and weather tight closure.

B. Hardware: Adjust operating hardware to ensure proper operation. Coordinate cylinder installation.

3.04 **CLEANING**

 A. Clean door and frame surfaces after installation, exercising care to avoid damage to the

 finish.

 B. Clean glass surfaces after installation, complying with requirements contained in the “Glass and Glazing” section for cleaning and maintenance. Remove excess glazing sealant compounds, dirt or other substances.

3.05 **PROTECTION**

 A. Institute protective measures required throughout the remainder of the construction

 period to ensure that the all glass entrances do not incur any damage or deterioration,

 other than normal weathering, at the time of acceptance.

**END OF SECTION**