

ARCHITECTURAL SPECIFICATIONS

Section 08580
2004 Master Format 08 56 00

Glasswalls Porch Enclosure System

PART 1 GENERAL

1.00 SCOPE

- A. This is a high performance porch enclosure Specification. The Specification provides the Bidders with rigid standards for product materials, workmanship and performance that must be complied with in every respect.
- B. It is the intent of this Specification to provide the Owner with proper product materials, workmanship, design, application performance, installation and warranty coverage. The Specification describes specific test requirements, system performance, quality assurance tests, and product material requirements required to meet the Owner's desired quality level.

1.01 WORK INCLUDED

- A. Furnish and install porch enclosure units, complete with hardware, trim and related components as shown in drawings and specified in this Section.
- B. All windows are to be Glasswalls Porch Enclosure Units as manufactured by Mon-Ray, Inc. Other manufacturers requesting approval to bid their product will be viewed as alternate bids and must submit a request for approval 10 days prior to bid for consideration.

1.02 REFERENCES

- A. AAMA/NWWDA 101/I.S.2-97 "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"

1.03 SYSTEM PERFORMANCE

- A. Aluminum Anodic Finish and Hardness Test: Prior to approval, the successful Bidder shall submit three 12 inch (30.5 cm) long pieces of anodically finished sash frame. The Owner reserves the right to test these samples for coating thickness, coating weight, stain resistance and hardness. The performance will meet these minimums:

* ASTM E 244 (Anodized Coating thickness)	.25 mills Architectural Class 2
* ASTM B 137 (Anodic Coating Density)	38 g/in ³
* ASTM B 680 (Anodic Seal Integrity)	No observable stain
* Rockwell Tester (Hardness)	Gauge reading of at least 12 on Webster dial gauge

1.04 SUBMITTALS

- A. Shop Drawings: Submit drawings under provisions of Section 01300. Include dimensions, relationships to construction of adjacent work, component anchorage, type of caulking, porch enclosure locations, installation methods and installation materials. Dimensions of all porch enclosure units and components will be the responsibility of the successful Bidder.
- B. Samples: Submit appropriate color Samples for Architects review and approval.

1.05 QUALITY ASSURANCE

- A. Qualifications: Fabrication shall be by a Porch Enclosure Manufacturer who can furnish evidence to the Owner that it is, and has been for not less than five (5) consecutive years, regularly engaged in the manufacturing of aluminum and wood porch enclosure units similar in design and performance to those specified for this Project.

- B. Reference List: The Bidder shall furnish with its bid a Reference List from the Porch Enclosure Manufacturer containing not less than ten (10) completed projects with porch enclosure units of similar to the porch enclosure units specified for this Project. At least five (5) of the referenced projects shall be at least three (3) years old. The Reference List shall include the name, address and phone number of the project, and the date the project was completed.

1.06 WARRANTY

- A. Product Warranty: The successful Bidder shall furnish a positively written, non-prorated and fully transferable warranty from the Porch Enclosure Manufacturer against defects in materials and workmanship of the porch enclosure units, under normal use, for a period of ten (10) years from the date of acceptance of the installed porch enclosure units by the Owner. The warranty shall state that the Porch Enclosure Manufacturer shall provide all materials required to repair or replace defective materials or workmanship. The warranty shall further state that parts used to manufacture the porch enclosure units, or suitable replacements, shall be available throughout the warranty period.
- B. Installation Warranty: The Successful Bidder shall furnish a written warranty against defects in the installation workmanship and materials for a period of three (3) years from the date of acceptance by the Owner. Installation warranty work will be performed at no cost to the Owner.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Mon-Ray, Inc. (Manufacturer of Glasswalls Porch Enclosure Windows)
801 Boone Ave North
Minneapolis, MN 55427-4432
Phone: (800) 544-3646 Fax: (763) 546-8977 Website: www.monray.com
- B. Alternates: Under provisions of Section 01030.

2.02 MATERIALS

- A. Aluminum: All frame, sash and screen members shall be accurately extruded aluminum prime alloy 6063-T6. The minimum nominal wall thickness of all sash members shall not be less than 0.050" (1.27 mm).
- B. Wood Frame and Sub-sill: The porch enclosure head and jambs shall be constructed of clear finger jointed Ponderosa Pine. The box sill shall be fabricated from clear non-finger jointed Ponderosa Pine. All wood shall be kiln dried to a 6-12 percent moisture content and treated with Wood Life wood preservative.
- C. Glazing: Standard glazing for all Glasswalls porch enclosure units operating sash shall be 1/8" (3.18 mm) clear tempered safety glass. Safety glazing shall be used as required by code and correctly labeled on glass. The glass shall be glazed into the sash with a one-piece wrap-around, flexible vinyl glazing channel. All corners shall be secured and neatly tucked. All glass shall be factory washed.
- D. Weather-Strip: All weather-strip shall be located at the meeting rails. Weather-stripping shall be a wool pile, to allow sash to easily pass each other, creating multiple ventilation positions.
- E. Zinc Track: All porch enclosure units shall incorporate a 3 channel zinc track, stapled with 18 gauge 3/4"
a. (19 mm) wire staples into the wood frame, to provide reduced operation force and create multiple ventilating positions.
- F. Screens: All porch enclosure units shall have a full screen mounted to the exterior of the wood frame with aluminum cam locks. The screen shall be pre-bowed, extruded 6063-T6 tubular aluminum with a nominal wall thickness of 0.055" (1.4 mm). Mitered corners shall be joined neatly by means of solid T6 tempered aluminum corner gussets, securely peened within the screen frame extrusion. There shall be two equally spaced horizontal cross bars to provide additional screen support. The screen cloth shall be fiberglass 18 x 14 mesh in a charcoal color and secured into screen frame with a vinyl non mitigating spline. NOTE: Fiberglass 18 x 16 mesh shall not be acceptable.

2.03 WINDOW TYPE AND OPERATION

- A. Type: All porch enclosure units shall be vertical sliding 3-lite aluminum sash mounted in a 3 1/2” (8.9 cm) wood frame. All glass sash inserts shall be side loaded easily removable to the interior for cleaning. Screen shall be exterior removable. The porch enclosure units shall be designed and constructed in a manner that allows for easy replacement of all parts, hardware and weather-stripping.
- B. Operation: Operating sash and frame shall have a three-track, self-storing sash design. Operating surfaces to be completely surrounded by a zinc track with pre-punched ventilating positions. The pin-locks shall engage automatically into predetermined ventilating positions processed into each side of the porch enclosure frame. The pre-punched ventilating points shall allow multiple ventilating positions.

2.04 HARDWARE

- A. All assembly screws and operating hardware incorporated in the porch enclosure units shall be non-magnetic, stainless steel. All hardware parts shall be of aluminum, stainless steel, or other non-corrosive materials compatible with aluminum. NOTE: Wrought metal or plastic parts will not be acceptable.
- B. All removable screen and storm panels shall incorporate a Z clip mounted to the screen and storm panel and stamped extruded aluminum cams installed with non-magnetic stainless steel screws in the wood frame. Screen to have 2 cams and storm panel to have 4 cams.
- C. All vertical-sliding sashes shall be equipped with two spring-loaded stainless steel pin-lock assemblies. The pin-lock assemblies shall be located at the upper corners of the operating sash and automatically engage at each ventilation setting. Each pin-lock assembly shall consist of: (One stainless steel 3/16” (4.76 mm) diameter plunger . One stainless steel knurl knob threaded into the plunger and extending 1” (25.4 mm) to the interior of the sash rail to allow for a firm and easy finger grip. One stainless steel compression spring.)

2.05 FABRICATION

- A. Frame and Sash Construction:
 - 1. Frame: Shall be constructed of 1 1/16” x 3 1/2” (2.7 cm x 8.9 cm) preservative treated Ponderosa Pine. All wood head, jamb and sill members for the porch enclosure frame shall be butt joint design and assembled with # 8 x 1 3/4” (4.45 cm) stainless steel screws. There shall be 2 screws at each head joint and 4 screws at each sill joint.
 - 2. Box Sill: Each porch enclosure unit will incorporate a box sill. The purpose of the box sill is to provide a concealed space for electrical wiring, telephone wiring, coaxial cable, or heat ducts if required.
 - 3. Sash: All sash members shall be extruded 6063-T6 aluminum with a minimum wall thickness of 0.055 “ (1.4 mm). Mitered corners shall be joined by non-magnetic stainless steel corner keys, securely peened on the inside of the sash insert. All sharp corners of the sash shall be deburred and smoothed. The lift handle shall project 7/16” (11.11 mm) to the interior to allow adequate area to maintain a sure finger grip. Porch enclosure sash shall have a stainless steel spring to allow side loading and provide easy removal for cleaning.

2.06 FINISHES

- A. Anodic (Anodized Finish)
 - 1. Finish all areas of aluminum sash, screen, optional storm panel and components with electrolytically deposited color in accordance with the following Aluminum Association Designation:

<u>*AA Designations</u>	<u>Architectural Class</u>	<u>Description</u>	<u>AAMA Guide Specification</u>
AA-M10-C22-A31/41	II	Clear Anodized	AAMA 607.1

- 2. Standard anodized colors are 202 R1 Clear and Dark Bronze anodized.

2.07 ACCESSORIES

- A. **Optional Storm Panel:** An optional storm panel shall be available in the exact size of the screen frame. The purpose of the storm panel is to reduce air leakage and improve the over-all thermal performance of the porch enclosure unit. The storm panel shall be constructed of extruded aluminum prime alloy 6063-T6. The minimum nominal wall thickness of panel frame members shall not be less than 0.05" (1.27 mm). The storm panel shall have two cross bars. Three panes of glass shall be glazed into the storm panel with a one-piece wrap-around, flexible vinyl glazing channel. All corners shall be secured and neatly tucked. Glazing shall be 1/8" (3.18 mm) clear annealed, unless next to a door. Then 1/8" (3.18 mm) tempered glass shall be required.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Bidders are expected to visit the job-site and make a complete survey of the Project prior to bid. All porch enclosure openings will be measured by the Bidder for proper sizing of the Glasswalls units. Failure to do so will not relieve the Successful Bidder from the need to furnish any and all materials, which may be required, in accordance with the Specifications, without any additional cost to the Owner.
- B. Inspect openings before installation to assure surfaces are clean and dry. Verify that porch sill decking, or masonry openings are correct and the sill is level. The main sill shall have a 7 degree slope for water drainage. If an existing sill is used, match the slope by trimming the box sills of the Glasswalls units.

3.02 PREPARATION

- A. Remove new porch enclosure units from crating and packaging material. Verify that all parts and accessories are included. All porch enclosure units and accessories shall be securely stored, upright and protected from the weather.
- B. Prepare the opening according to manufacturers instructions to accept the porch enclosure units.
- C. Install only a 2" x 8" (5.08 cm x 20.32 cm) cedar, redwood or wood treated sill. Provide adequate caulking to seal the sill.

3.03 INSTALLATION

- A. Porch enclosure units shall be installed in strict accordance with the Manufacturer's instructions and Shop Drawings.
- B. Plumb and align porch enclosure units. Erect porch enclosure units and accessories square and true, using blocking and anchors to maintain a permanent position.
- C. Anchors should be not less than #8 non-magnetic, stainless steel screws. The length of the installation screws shall allow a minimum of one half (1/2) inch (12.7 mm) to penetrate into the window frame or blocking. Anchors must be adequate to handle thermal and building movement, and specified uniform load requirements.
- D. Caulking shall be a one-part non-sag polyurethane sealant (Type II Class A).