

SECTION 08580 - SPECIAL FUNCTION WINDOWS (Custom Aluminum Storm Windows)



PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Custom storm windows for exterior or interior application.
- B. Related Sections:
 - 1. Joint Sealers: Division 7 Joint Sealers Sections.
 - 2. Glass and Glazing: Division 7 Glass and Glazing Section.

1.2 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA™ product sheet, for specified products and installation instructions.
- C. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.
 - 1. Indicate the following: Components complete with dimensions, material and details of anchoring and fastening; finishes, sealants and other information indicating compliance with specifications; window manufacturer's glazing instructions; and recorded field measurements on final drawings.
- D. Samples: Submit selection and verification samples for finishes, colors and textures.
 - 1. Components: Submit samples of anchors, fasteners, hardware, assembled corner sections and other materials and components if requested by architect.
 - a. Finish: Submit color samples, for approval by architect, which represent the allowable range of finish established from production material specified.
- E. Closeout Submittals: Submit the following:
 - 1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
 - 2. Warranty: Warranty documents specified herein.

1.3 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirement Sections.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.

- C. Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
 - 1. Store inside, if possible, in a clean, well-drained area free of dust and corrosive fumes.
 - 2. Stack vertically or on edge so that water cannot accumulate on or within materials. Use nonstaining wood or plastic shims between components to provide water drainage and air circulation.
 - 3. Cover materials with tarpaulins or plastic hung on frames to provide air circulation.
 - 4. Keep water away from stored assemblies.

1.4 PROJECT CONDITIONS

- A. Existing Conditions: [**Specify existing conditions affecting product use and installation.**].
- B. Field Measurements: Verify actual measurements and openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.5 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.
 - 1. Window System: Window manufacturer shall provide written warranty against defects in materials and workmanship for a period of 5 years from the date of Substantial Completion.

PART 2 - PRODUCTS

2.1 STORM WINDOWS

- A. Manufacturer: Allied Window, Inc.
 - 1. Contact: 11111 Canal Road, Cincinnati, OH 45241; Telephone: (800) 445-5411, (513) 559-1212; Fax: (513) 559-1883; E-mail: info@alliedwindow.com; website: www.alliedwindow.com.
- B. Proprietary Product(s): Custom storm windows, including the following:
 - 1. Historic One Lite (HOL) installs on exterior.
 - 2. Historic One Lite - Operating (HOL-OP) installs on exterior.
 - 3. Monumental Historic One Lite (MHOL) installs on exterior.
 - 4. Allied One Lite (AOL) installs on exterior.
 - 5. Monumental Allied One Lite (MAOL) installs on exterior.
 - 6. Magnetic One Lite (MOL) installs on interior.
 - 7. Magnetic One Lite - Operating (MOL-OP) installs on interior.
 - 8. Monumental Magnetic One Lite (MMOL) installs on interior.
 - 9. Slide-A-Way (SAW) installs on interior.

2.2 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

2.3 STANDARD PRODUCTS

A. Historic One Lite (HOL):

1. HOL-A Masterframe with single removable panel.
2. HOL-B Masterframe with top fixed and removable panel at bottom.
3. HOL-C Masterframe with top and bottom panels removable.
4. HOL-CV Masterframe with left and right panels removable.

B. Historic One Lite-Operating (HOL-OP):

1. HOL-OP Masterframe with top fixed and operable/removable bottom glass/screen assembly.
2. HOL-OP-TOR Masterframe with top outside-removable and operable/removable bottom glass/screen assembly.

C. Monumental Historic One Lite (MHOL)

1. MHOL-A Masterframe with single removable panel
2. MHOL-C Masterframe with top and bottom removable panels

D. Allied One Lite (AOL):

1. AOL-A Masterframe with single removable panel.
2. AOL-C Masterframe with top and bottom removable panels.

E. Magnetic One Lite (MOL):

1. MOL Single panel that is magnetically applied for easy removal.
2. MOL-ST Stacked panels with horizontal mullion that supports top panel. Both panels magnetically applied. Bottom panel can be removed easily for ventilation.

F. Magnetic One Lite Operating (MOL-OP):

1. MOL-OP Bottom is operable and top area is fixed. Entire unit removes easily for cleaning or painting. Optional 1/2-screen is available.

G. Monumental Magnetic One Lite (MMOL):

1. MMOL Single panel that is magnetically applied, with removal by 2 people.
2. MMOL-ST Stacked panels with horizontal mullion that supports top panel. Both panels magnetically applied.. Bottom panel can be easily removed for ventilation.

H. Slide-A-Way (SAW):

1. SAW-2 Two panel unit with either side active. Sliding screen is optional.
2. SAW-3E Three panel unit with ends active.
3. SAW3C Three panel unit with center active.

2.4 MATERIALS

- A. Aluminum: 6063-T5 alloy and temper with minimum ultimate strength of 22,000 psi (152 MPa) and a yield strength of 16,000 psi (110 MPa).
- B. Corner Keys: Extruded aluminum.
- C. Fasteners: Stainless steel,, cadmium plated or other noncorrosive metal compatible with aluminum.
- D. Hardware: Nylon or zinc diecast.
- E. Glass:
 - 1. Thickness: [1/8" (3.2 mm)] [5/32" (3.9 mm)] [3/16" (4.8 mm)] [1/4" (6.4mm)]
 - 2. Annealed Glass: ASTM C1036.
 - 3. Tempered Glass: ASTM C1043.
 - 4. Low-E Glass: Pyrolytic hard coat.
 - 5. Laminated Glass: [3/16" with 0.015 PVB interlayer] [1/4" with 0.030 PVB interlayer]
- F. Screen Cloth: 18 x 16 mesh (Charcoal aluminum) (Black aluminum) (Fiberglass) (Bronze wire) (Stainless steel wire).
- G. Glazing Gaskets: Removable and reusable vinyl glazing gasket manufactured from virgin polyvinyl chloride.
- H. Weather-stripping: Pile type for operating units. Tracks lined with Stan-pro #525-160, with Schlegel #301-2432-500 at meeting rail.

2.5 FABRICATION

- A. Frame Members: Fabricate from extruded aluminum with wall thickness not less than 0.062" (1.6 mm). Miter corners and joined with corner keys fabricated from extruded aluminum, or special screws for marine-glazed units.
- B. Removable Inserts: Fabricated to be held in place with cam-action clips, to be easily removable and furnished with full bottom rail lift handle. "Invisible clips" are standard for exterior-removable panels.
- C. Operable Sash: Vertically operating sash shall be equipped with heavy duty stainless steel spring-loaded latches, which engage at various sash positions for ventilation, and a full bottom rail lift handle.
- D. Sill Expander: H type fabricated from extruded aluminum, with minimum wall thickness of 0.062" (1.6 mm) and minimum web thickness of 0.125" (3.2 mm), modified to permit weepage for exterior units.
- E. Hardware/Magnetic Seal: U-channel head receptor fabricated from extruded aluminum, with minimum wall thickness of 0.046" (1.2 mm), sill weather-stripping is flexible foam sill-seal and a magnetic seal of one of the following:
 - 1. Foam-backed steel tape applied to aluminum U-channel.
 - 2. Foam-backed steel tape applied directly to prime window frame system.
 - 3. Foam-backed steel tape applied to aluminum angle.
- F. Mylar Foam Tape: All exterior storm windows receive a high-quality Mylar foam tape at the head and jambs to eliminate the need for caulking, and to permit future removal for painting of the sash.

2.6 FINISHES

- A. Baked Acrylic: In accordance with AAMA 603.6 [**White**] [**Colonial White**] [**Beige**] [**Black**] [**Bronze**] colors standard, with 5 year warranty.
- B. Two- Part Polyurethane: Match custom color sample provided, with 5 year warranty.
- C. Corafon ADS: Fluoropolymer (Kynar equivalent) finish which meets the durability criteria of AAMA 2605. Warranty is for (15) years.
- D. Baked Acrylic: In accordance with AAMA 603.6. Custom color to match color sample provided (limited to large projects).
- E. Mill finish: No finish applied to aluminum.
- F. Alodine finish: Primer finish applied to aluminum.
- G. Clear Anodic: In accordance with Class 1, AA-M12C22A32.
- H. Colored Anodic: In accordance with Class 1, AA-M12C22A42, bronze or black color. .(Large projects only)
- I. Fluoropolymer: 70% Kynar 500 or Hylar 5000 resin coating in accordance with AAMA 2604; color selected by the architect from the manufacturer's range of standard colors limited to large projects).

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.2 EXAMINATION

- A. Site Verification of Conditions: Verify that substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.
 - 1. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean, provide a solid anchoring surface and are in accordance with approved shop drawings.
 - 2. Do not install windows until unsatisfactory conditions are corrected.

END OF SECTION