

[Note: items in brackets [] are options or comments, to be deleted or to replace other text as necessary.]

SECTION 08520  
ALUMINUM WINDOWS

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. SH-700 WinGuard aluminum single hung window.

1.2 RELATED SECTIONS

- A. Section 07190 - Vapor and Air Barriers  
B. Section 07900 - Joint Sealants

1.3 REFERENCES

- A. AAMA - American Architectural Manufacturers Association
1. AAMA 103.3-93 "Procedural Guide for Aluminum and Vinyl Prime Windows and Glass Doors, Insulating Storm Products for Windows and Glass Doors and Thermal Performance of Windows and Glass Doors"
  2. AAMA 1302.5-76, paragraph 3.1.1 Test A through 3.1.3 Test G "Voluntary Specifications for Forced-Entry Resistant Aluminum Prime Windows"
- B. ANSI - American National Standards Institute
1. ANSI/AAMA/NWDA 101/LS.2-97 "Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"
- C. ASTM - American Society for Testing and Materials
1. ASTM C 1036-91 "Standard Specification for Flat Glass"
  2. ASTM E 283-96 "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors"
  3. ASTM E 330-96 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
  4. ASTM E 331-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"

5. ASTM E 547-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential"
  6. ASTM F 588-85 "Standard Test Methods for Resistance of Window Assemblies to Forced Entry Excluding Glazing"
- D. Florida Building Code
1. Protocol TAS-201 "Impact Test"
  2. Protocol TAS -202 "Air, Water, Structural Test"
  3. Protocol TAS -203 "Cyclic Wind Load Test"

1.4 SYSTEM DESCRIPTION

- A. Configuration: flange construction [integral fin construction] single hung (single vent) [proview] [radius top (only available as a flange, proview style)].  
B. Frame: 2.784" frame depth.
- C. Glazing: exterior glazed, with aluminum glazing bead, [5/16" laminated (1/8"-.090"-1/8")] [13/16" IG-Lami (1/8" - space - 5/16" laminated) (3/16" - space - 5/16" laminated)] [7/16" laminated (3/16"-.090-3/16") [13/16" IG-Lami (1/8" [3/16" - space - 7/16" laminated) ] glass, factory glazed.
- D. [ Muntins: double applied colonial configuration (raised external muntin, interior flatbar) [ogee double applied colonial configuration (ogee external muntin, interior flatbar) ] [custom: specify pattern and number of lites]
- E. Performance Requirements
1. When tested according to Miami-Dade County test protocols, meets the design pressures stated in the Miami-Dade County Notice(s) of Acceptance for this product.
  2. Air Infiltration: 0.3 (ft<sup>3</sup>/min/(ft<sup>2</sup>) maximum when tested per ASTM E 283 at a 1.57 psf static air pressure difference.
  3. Water Resistance: no water leakage when tested per ASTM E 547 at a static air pressure difference of 15% of the positive design pressure.
  4. Uniform Load Structural: after testing per ASTM E 330 with a load equal to 150% of the positive design pressure, the unit must be operable, with a maximum permanent deformation in any member of 0.4% of the member's length.

1.5 SUBMITTALS

- A. Submit according to provisions of Section 01300.

- B. Product Data: provide manufacturer's standard details, specifications and catalog information, recommendations, and installation instructions.
- C. Shop Drawings: include unit elevations, details of all aluminum window sections, typical anchorage and installation details, type of glazing and window finish, and interface with other products.
- D. Finish Samples: manufacturer's available colors.
- E. Unit Samples: if required by Architect, provide scaled-down size operating samples of each unit type, to demonstrate design and construction of the unit and hardware.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: minimum five (5) years documented experience in the manufacture of aluminum windows as required for this project.
- B. Installer Qualifications: workmen properly trained and skilled in the installation and handling of aluminum windows as required for this project.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle windows and accessories in accordance with the manufacturer's instructions.
- B. Protect the products from damage due to the elements, construction traffic, or other hazards, from the time of arrival through the completion of the project.

1.8 WARRANTY

- A. Manufacturer's Warranty: Furnish manufacturer's Limited Lifetime Warranty on aluminum windows and doors.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

- A. PGT Industries, Inc. Series SH-701 WinGuard single hung aluminum window.

2.2 MATERIALS

- A. Main frame members: extruded from 6063-T6 alloy, nominal 0.062" wall thickness.  
B. Sash members: extruded from 6063-T5 aluminum alloy, nominal 0.062" wall thickness.

- C. Hardware: two spiral torsion spring balances. Two steel and tin-lead-zinc alloy cam lever sash locks on each vent locking beneath a groove in the fixed meeting rail (one sash lock if window width is less than 44"). [Stainless steel assembly screws.]
- D. Weatherstripping: sides and top of vent weatherstripped with .170 x .270 fin seal, bottom of vent weatherstripped with compressed finned vinyl bulb.
- E. Glazing attachment with silicone adhesive.
- F. Screens: tubular aluminum frame with fiberglass screen cloth, vinyl spline, two plastic screen pull tabs and two compression retention springs per screen.
- G. [ Muntins: extruded aluminum 6063-T5 alloy, tube construction (flat bar used for interior surface) ]

2.3 ACCESSORIES

- A. [ Mullions: 1x2.75 tube mull [1x4 tube mull] [heavy duty wall] [specify mull] and associated mull clips. ]

2.4 FABRICATION

- A. Main frame and sash joints constructed with butt joint fit, assembled with phillips pan head screws, and factory sealed with Parbond or Schnee Moorehead sealer.
- B. All hardware factory installed.
- C. Bug screens constructed and installed in unit prior to shipment.

2.5 FINISHES

- A. Colors: Selected by Architect from the following:
1. Standard coating color charts.
  2. Custom coating color charts.
  3. Color Name and Number:
- A. AAMA 2603 finish: Pretreatment plus thermosetting polyester powder coating.
- B. AAMA 2605 Duranar (or comparable) finish - pretreatment plus 2 coat, 50 and 70 percent Kynar base options.
- C. Clear Anodized Finish: NAAMM AA-C2241, 204R1 - class II - Minimum 0.4 mils, in natural aluminum color.
- D. ETERNA® Wood grain finish: Pretreatment plus base powder coat with preprinted film transfer with organic photosensitive pigments and cellulose resin thermoprint.

**PART 3 - EXECUTION**

3.1 EXAMINATION

- A. Verify that openings provide an acceptable anchoring surface, being clean, level, plumb, and dimensionally within the manufacturer's tolerance of clearance spacing.
- B. Correct unacceptable openings as required prior to installation.

3.2 INSTALLATION

- A. Install windows and accessories in accordance with approved shop drawings and manufacturer's recommendations.
- B. Securely fasten frames, and set units level, plumb, and square with respect to the surrounding structure, without twist or bow.
- C. Place insulation materials around shim spaces as required to ensure continuity of the thermal barrier of the structure.
- D. Apply caulk all around between the aluminum frame and the structure, ensuring that a continuous airtight and watertight perimeter seal results. Leave exposed surfaces clean and free of caulk.

3.3 ADJUSTING AND CLEANING

- A. Ensure that units freely operate in a normal fashion, and that vents make proper contact with weatherstripping perimeter seal. Adjust frame, vent, or hardware as needed.
- B. Leave units thoroughly clean and free of dirt or other construction residue.

END OF SECTION

Date:

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RBA: PN: 11616.04

Issued

⊙ :Permit Set  
⊙ :G.C. Bid Set  
⊙ :Owner Review  
● 9-15-16:Structural Review