

2.01 Window Description:

Commercial Thermal Aluminum [[Projection, Fixed, Single Hung, Slider, Double Hung](#)] windows with AAMA 2603 Polycron finish and [[Enter Glass Package General Specification Here – Example: Cardinal soft coat Low E³ 366 glass](#)]

- A. West Window Corporation, Westco Projection Series Window
- B. West Window Corporation, Westco Series Fixed Window

2.02 Window Specifications: Per Attachment I**3.01 Installation of replacement windows:** General: Install window system in accordance with all current local, state, and/or federal standards and with the manufacturer's shop drawings and/or written installation instructions.

- A. Protect aluminum members in contact with masonry, steel, concrete, or dissimilar materials using nylon pads or bituminous coatings.
- B. Shim and brace aluminum system before anchoring to structure
- C. Verify window system allows water entering system to be collected in the gutters and wept to exterior. Verify weep holes are open, and metal joints are sealed in accordance with manufacturer's installation instructions.

3.02 Adjusting and Cleaning:

- A. Adjust the operable windows (if necessary) for operation in accordance with the manufacturer's instructions.
- B. The contractor shall clean the installed window systems in accordance with the manufacturer's instructions prior to owner's acceptance.

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ATTACHMENT I

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Material: aluminum windows as on the drawings and specified in this section.
- B. Installation: labor, tools, and material needed to install aluminum windows.
- C. Glass and glazing.

1.05 REFERENCES

- A. AAMA - American Architectural Manufacturers Association
 - 1. AAMA/NWWDA 101/I.S.2-97 "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"
- B. ASTM - American Society for Testing and Materials
 - 1. ASTM E 283-04 "Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen"
 - 2. ASTM E 330-02 "Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls Doors by Uniform Static Air Pressure Difference"
 - 3. ASTM E 547-00 "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Differential"
 - 4. ASTM E 987 "Standard Test Methods for Deglazing Force of Fenestration Products"
 - 5. ASTM E 1753 "Standard Practice for Use of Qualitative Chemical Spot Test for Detection of Lead in Dry Paint Films"

6. ASTM F 588 “Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies”

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1.06 SYSTEM DESCRIPTION

- A. AAMA Designations: [[Projection, Fixed, Single Hung, Slider, Double Hung](#)]:
[[Insert Test Grade](#)], Fixed: [[Insert Test Grade](#)].
- B. Windows: [[2-5/8”, 3-1/4”](#)] frame depth; extruded aluminum with integral structural polyurethane thermal break shrouded at frame exterior for maximum thermal efficiency; equal-leg frame; finish factory-applied; frames and sash factory-assembled and factory glazed.
- C. Configuration: [[Enter detailed system configuration here](#)]
- D. Glazing: exterior silicone; 7/8" insulating glass; interior glazing bead; glass description in paragraph 2.04

1.07 PERFORMANCE REQUIREMENTS

- A. [[Projection, Fixed, Single Hung, Slider, Double Hung](#)] Conformance to [[Insert Test Grade](#)] specifications in AAMA/NWWDA 101/I.S.2-97 when tests are performed on the prescribed [[Enter Test Size](#)] test size with the following test results:
 1. Air Infiltration: meet AAMA 101 standard of maximum .3 cfm/square foot when tested per ASTM E 283 at a static air pressure difference of 1.57 psf.
 2. Water Penetration: no uncontrolled water leakage when tested per ASTM E 547 at 5.0 gph/ft² and WTP [[4.50](#)] psf.
 3. Uniform Structural: meet ASTM E 330 at [[45.0](#)] psf Exterior and [[45.0](#)] psf Interior pressures.
 4. Forced Entry Resistance: meet ASTM F 588-97 Level 10 with No Entry Allowed.
 5. Lead Spot Test: meet ASTM E1753 with Negative Lead Detection

1.08 SUBMITTALS

- A. Product data: manufacturer's specifications and test reports from an AAMA-accredited laboratory with third-party Notice of Product Certification.
- B. Samples: each specified finish for aluminum; other samples as requested.

1.09 QUALITY ASSURANCE

- A. Submit for prebid approval ten days prior to bid opening a sample window representing the bid window except for color and valid test reports from an AAMA-accredited laboratory conforming to test results in Paragraph 1.07.

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- B. Acceptance will be by addendum only as no verbal approvals will be allowed.
- C. Submit bid on prequalified products in prebid written addendum. Bidder must identify manufacturer and model of product on which the bid is based.
- D. Furnish a valid AAMA "Notice of Product Certification" indicating that the windows for the project conform to AAMA/NWWDA 101/I.S.2-97.
- E. Manufacturer's warranties:
1. Windows: warrant for one year against defects in material or workmanship under normal use.
 2. Insulating glass units: warrant seal for ten years against visual obstruction from film formation or moisture collection between internal glass surfaces, excluding that caused by glass breakage or abuse.
 3. Paint finish: PPG Polycron finish conforming to AAMA 2603: warrant for ten years against chipping, peeling, or cracking.

1.10 DELIVERY, STORAGE, AND HANDLING - Handle and protect windows and accessories in accordance with AAMA CW-10-04 until project completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. West Window, Westco Projection Series Window
- B. West Window, Westco Single Hung and Slider Series Window
- C. West Window, Westco Series Fixed Window
- D. West Window, West-Prime Thermal Double Hung Window
- E. Other approved equivalent

2.02 MATERIALS

- A. Aluminum extrusions: produced from commercial quality 6063-T6 alloy; free from defects impairing strength and durability.

2.03 FABRICATION

- A. Frame: members fastened with two 410 stainless steel screws per joint set in extruded screw bosses; factory-sealed with sealant conforming to AAMA 800-92.

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2.04 DOUBLE INSULATING GLASS UNITS

A. Materials

- 1. Spacer: "Warm Edge" thermoset polymer with integrated dessicant.
- 2. Secondary Seal: Hot Melt Butyl
- 3. Gas filling: [[Enter Specification](#)]

B. Performance

- 1. Dual-seal durability: conformance to ASTM E 774;

C. Exterior glass lite

- 1. Thickness: [[1/8"](#)]
- 2. Tint: [[clear](#)]
- 3. Type: [[annealed or tempered where indicated](#)]
- 4. Coating: [[Cardinal soft coat Low-E3 366 on #2 surface](#)]

B. Interior glass lite

- 1. Thickness: [[1/8"](#)]
- 2. Tint: [[clear](#)]
- 3. Type: [[annealed or tempered where indicated](#)]

A. Performance: [[U Factor .39, Solar Heat Gain Coefficient \(SHGC\) .22](#)]

B. Glass complies with ASTM E 1300

2.05 FINISH ON ALUMINUM EXTRUSIONS

A. Application: on clean extrusions free from serious surface blemishes; on exposed surfaces visible when installed product's operating sash are closed.

B. Coating: PPG Polycron or equivalent.

- C. Quality standard: conforming to AAMA 2603
- D. Application: electrostatic spray and oven bake by approved applicator.
- E. Coating quantity: one color coat.
- F. Dry film thickness: minimum .8 mils on exposed surfaces, except inside corners and channels.
- G. Color: chosen from manufacturer's standards.

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2.06 INSTALLATION ACCESSORIES

- A. Material: extruded aluminum; nominal .062" wall; with exposed surfaces finished to match window color and finish performance; concealed fasteners; required weatherseals; designed for unrestricted expansion and contraction.
- B. Receptor System (if required): two-piece snap trim with thermal break.
- C. Mullions (if required): one and/or two-piece with thermal break.

PART 3 - EXECUTION

3.01 PREPARATION - Prepare openings to be in tolerance, plumb, level, provide for secure anchoring, and in accordance with approved shop drawings.

3.02 INSTALLATION

- A. Install windows in accordance with manufacturer's recommendations and with skilled craftspeople who have demonstrated a successful history of installing windows for [ten years].
- B. Provide required support and securely fasten and set windows plumb, square, and level without twist or bow.
- C. Apply sealant per sealant manufacturer's recommendations at joints, wipe off excess, and leave exposed sealant surfaces clean and smooth.

3.03 ADJUSTING AND CLEANING - Adjust windows (if necessary) for smooth and weathertight operation, and leave windows clean and free of construction debris.

END OF SECTION

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