

SECTION 08 52 13

METAL-CLAD WOOD WINDOWS

PART 1 GENERAL

1.1 DESCRIPTION OF THE WORK

- A. New replacement windows
- B. Miscellaneous carpentry
- C. Painting and touch-up

1.2 REFERENCES

- A. General Standards listed by reference form a part of this specification section. Standards listed are identified by issuing authority, abbreviation, designation number and title. Standards subsequently referenced in this Section are referred to by issuing authority abbreviation and standard designation.
- B. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
  - 2. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
- C. ASTM International (ASTM):
  - 1. ASTM C1036 - Standard Specification for Flat Glass.
  - 2. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.
  - 3. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
- D. National Fenestration Rating Council (NFRC):
  - 1. NFRC 100 - Procedure for Determining Fenestration Product U-Factors.
  - 2. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meetings: Conduct pre-installation meeting to clarify Project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.4 SUBMITTALS

- A. Product Data: For each type of product required.
- B. Installation Instructions: Provide manufacturer's methods of installation including plan, section and elevation details. Show flashings, vents, sealants and interfaces with all existing materials. Identify all component parts and finishes.
- C. Samples: Provide samples of all finishes, colors and textures. Provide two samples of each.

- D. Certificates: Provide certificates signed by manufacturer indicating that all materials comply with specified standards and physical requirements.
- E. Qualifications Statements: For the installer, provide a list of similar projects with Owner name, telephone number and address.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Certified Manufacture and member in good standing of the Window and Door Manufacturers Association (WDMA).
  - 2. Capable of demonstrating at least 10 years history of window design and production.
- B. Installer Qualifications:
  - 1. At least five years experience in the installation of products similar to those required for this Project.
  - 2. At least three projects of similar size, type and complexity as this Project.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Do not order until all submittals have been approved in writing. Comply with manufacturer's ordering instructions.
- B. Deliver materials to Project in manufacturer's original, unopened and undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials and accessories protected from exposure to harmful environmental conditions and at temperature and humidity levels recommended by manufacturer, off the ground, under cover and not exposed to weather, construction activities, theft and vandalism.

#### 1.7 WARRANTIES

- A. Special Warranty: Manufacturer's transferrable, non-prorated 2limited warranty.
  - 1. Warranty Period: Glass: 20 years.
  - 2. Warranty Period: Non-Glass Parts: 10 years.

### PART 2 PRODUCTS

#### 2.1 METAL-CLAD WOOD WINDOWS

- A. Provide aluminum clad windows such as Anderson E-Series (Eagle) Windows.
- B. Substitution Requirements: Any request for substitution must be accompanied by brochures, technical data, test data and certifications that the standards specified herein are met or exceeded. Based on the Owner's and Architect's review of the data, the proposed substitution will be either rejected or accepted.

## 2.2 MATERIALS

### A. Construction:

1. Cladding: Extruded aluminum, minimum thickness 0.050 in. (1.27 mm).
2. Frame: Preservative treated laminated veneer lumber.
3. Interior Exposed Frame: Preservative treated solid lumber and suitable for paint finish.
4. Sash: Preservative treated solid lumber, kiln dried and suitable for paint finish.

### B. Wood Species: Pine

### C. Interior Finish: Factory applied primer before assembly.

### D. Exterior Finish:

1. Painted Frame: Architectural quality, in compliance with AAMA 2605; color: Colony White.
2. Painted Sash: Architectural quality, in compliance with AAMA 2605; color: Colony White.

## 2.3 WINDOWS

### A. Window Type and Performance Requirements: Double-Hung Full-Frame and Fixed as indicated in the Window Schedule included in Paragraph 2.5 of this Section.

1. Double-Hung Performance Class LC and Grade, Non-Impact-Resistant.
2. Full-Frame Fixed Performance Class LC and Grade, Impact-Resistant: PG30.

### B. Weatherstrip: For Hung windows, three fins and pile, polypropylene.

### C. Hardware:

1. Sash Lock/Tilt Mechanism Type and Material: Self-latching, die-cast zinc; Color: to match sash.

### D. Divided Lights:

1. Type: Divided Light Grilles; Profile: Ovolo.
2. Width: 5/8 inch.
3. Exterior Attachment: Permanently adhered to glass.
4. Glass Spacer Material: Stainless steel.
5. Interior Attachment: Permanently adhered.
5. Pattern: As shown on schedules in Paragraph 2.5 of this Section.
6. Exterior Aluminum Color: Match window.
7. Interior Wood Species: Match window.
8. Interior Wood Finish: Match window.

### E. Exterior Trim and Accessories:

1. 2 inch brick mould (A753).
2. 1-1/2 x 2-1/2 inch extended sill nose (A752).
3. Material: Extruded Aluminum; Finish and Color: Match windows.

## 2.3 NON-IMPACT-RESISTANT GLAZING for Double-Hung and Fixed Windows.

### A. Thermal Transmission (U-Factor), NFRC 100: Double-Hung, 0.31 with grilles; Fixed, 0.31 with grilles.

- B. Solar Heat Gain Coefficient (SHGC), NFRC 200: Double-Hung, 0.18 with grilles; Fixed, 0.18 with grilles.
- C. Visible Light Transmittance (VLT), NFRC 200: Double-Hung, 0.40 with grilles; Fixed, 0.42 with grilles.
- D. Glass Units: Provide insulating glass units certified through Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190.
  - 1. High-Performance Low-E4 Glass.
  - 2. Dual-pane.
  - 3. Tint: None.
  - 4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.
  - 5. Glass Type: Annealed glass, ASTM C1036.
  - 6. Opacity: None

2.4 WOOD INTERIOR TRIM

- A. Interior Casings to match existing in quantities required. Make sure the new trim profiles match the existing trim profiles. If not, use existing casings one window at a time. If there is not enough to complete one entire window, change to all new casings. In other words, do not mix trim if profiles do not match.
- B. New backbands to apply over casings.
- C. Paintable latex caulking and filler.
- D. Paint to match existing.

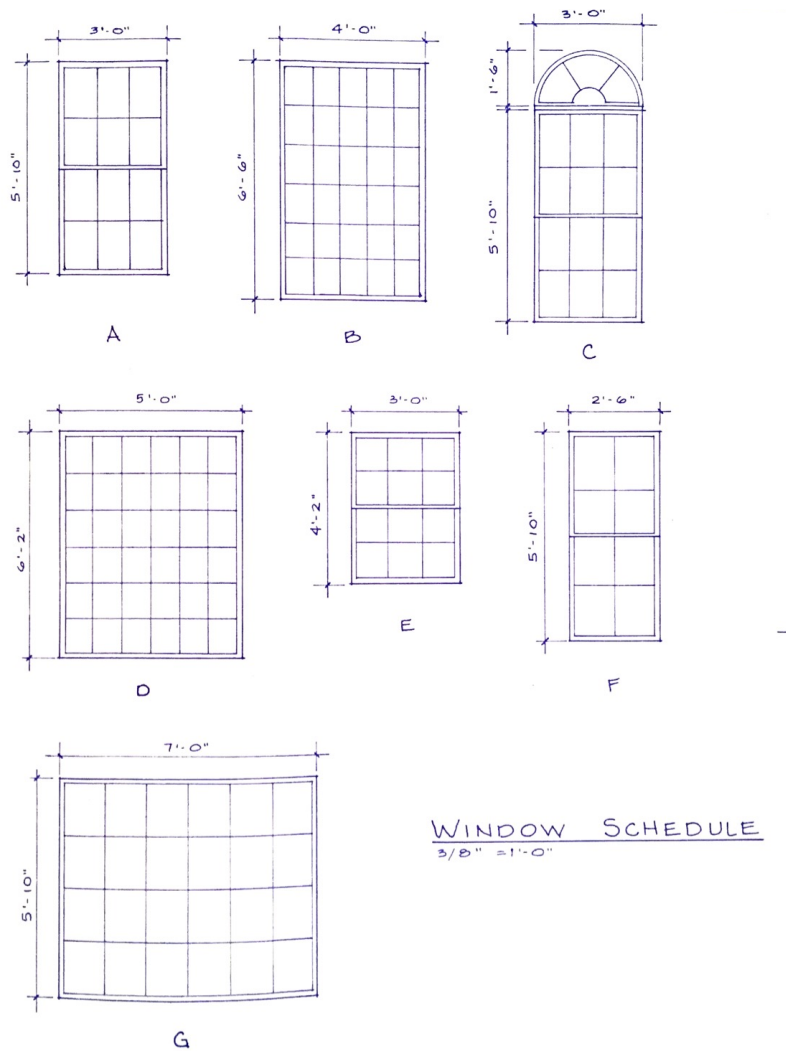
WINDOW SCHEDULE

Window Type	Quantity	Size (H x V)	Operation	Location
<b>A</b>	2	3-0 x 5-10	Double Hung (DH)	South
<b>C</b>	1	3-0 x 5-10 w. 1-6 radiused fan light	DH	South
<b>D</b>	1	5-0 x 6-2	Fixed	East
<b>F</b>	2	2-6 x 5-10	DH	South
<b>G</b>	1	7-0 x 5-10	Fixed	South

2.5 SCHEDULES

- A. Window Schedule: The visual window schedule below is taken from the original construction documents and shows the configuration of the windows included in the initial Project. Not all windows shown on the visual schedule, however, will be

replaced. The Tabular Schedule above lists the the windows that are to be provided as work of this section and this Project.



**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Verify that all substrate conditions are suitable for installation in compliance with manufacturer's recommendations.
- B. Dimensions shown on the Schedules are from the working drawings, not as-built drawings. All dimensions must be verified at the site before ordering windows.

- C. Do not begin installation until substrates, including flashings, have been properly prepared and any conditions not in compliance with manufacturer's recommendations have been corrected.

### 3.2 INSTALLATION

- A. General: Comply with manufacturer's product recommendations, including their Installation Guide, installation information in product literature and on product packaging.
- B. Install windows plumb, level and square. Anchor windows securely to structure in correct orientation to flashing and adjacent construction. Comply with product installation instructions for proper flashing integration into wall system. Install windows so as to drain water penetration to the exterior.
- C. If flashings are damaged or worn, repair or replace.
- D. Adjust sash for correct fit and operation. Adjust weatherstrip for smooth operation and weather-tight closure.
- E. Carefully remove interior casings. Cut between wall and casing with a utility knife to avoid peeling paint or paper from drywall. Save casings for reinstallation. If some are damaged and cannot be reused, use new but sort so profiles match at each window - all new or all old.  
Be particularly careful removing the trim at the fan light, so it can be reused.

### 3.4 CLEANING

- A. Remove protective films and non-permanent labels prior to 90 days after installation.
- B. Remove excess sealant, soiling and dirt and other substances. Clean window frame and glass surfaces. Avoid damaging coatings and finishes.
- C. Touch up, repair or replace glass or other window components broken, scratched or damaged during construction prior to Substantial Completion.
- D. Remove and lawfully dispose of construction debris from Project site.

END OF SECTION