

Guide Specification

Specifier Notes: This guide specification is written in Construction Specifications Institute (CSI) 3-Part Format in accordance with *The CSI Construction Specifications Practice Guide, MasterFormat, SectionFormat, and PageFormat.*

This Section must be carefully reviewed and edited by the Architect to meet the requirements of the Project and local building code. Coordinate this Section with Conditions of the Contract, Division 01, other specification sections, and the Drawings. Delete all Specifier Notes after editing this Section.

Section numbers and titles are based on *MasterFormat 2016 Edition.*

SECTION 08 53 13

VINYL WINDOWS

Specifier Notes: This Section covers Simonton Windows "Reflections 5500" casement and awning vinyl windows. Consult Simonton Windows for assistance in editing this Section as required for the Project.

PART 1 GENERAL

1.1 SECTION INCLUDES

Specifier Notes: Edit the following list for the windows specified in this Section.

- A. Casement vinyl windows.
- B. Awning vinyl windows.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as required for the Project. Limit the list to sections with specific information that the reader might expect to find in this Section, but is specified elsewhere.

- A. Section 06 10 00 – Rough Carpentry.
- B. Section 06 20 00 – Finish Carpentry.
- C. Section 06 40 13 – Exterior Architectural Woodwork.
- D. Section 07 92 00 – Joint Sealants.

1.3 REFERENCE STANDARDS

Specifier Notes: List reference standards used elsewhere in this Section, complete with designations and titles. Delete reference standards from the following list not used in the edited Section.

- A. American Architectural Manufacturers Association (AAMA) (www.aamanet.org):
 - 1. AAMA 502 – Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
- B. American Architectural Manufacturers Association/Window & Door Manufacturers Association/Canadian Standards Association (AAMA/WDMA/CSA) (www.aamanet.org):
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440 – North American Fenestration Standard/Specification for windows, doors, and skylights.
- C. ASTM International (ASTM) (www.astm.org):
 - 1. ASTM E 283 – 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 F 588 – Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
- D. National Fenestration Rating Council (NFRC) (www.nfrc.org):
 - 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.

1.4 PREINSTALLATION MEETINGS

Specifier Notes: Edit the Preinstallation Meetings article as required for the Project. Delete article if not required.

- A. Convene preinstallation meeting [1 week] [2 weeks] before start of installation of vinyl windows.

- B. Require attendance of parties directly affecting Work of this Section, including Contractor, Architect, installer, and manufacturer's representative.
- C. Review the Following:
 - 1. Mock-ups.
 - 2. Materials.
 - 3. Examination of openings.
 - 4. Preparation.
 - 5. Installation.
 - 6. Field quality control.
 - 7. Adjusting.
 - 8. Cleaning.
 - 9. Protection.
 - 10. Coordination with other Work.

1.5 SUBMITTALS

Specifier Notes: Edit the Submittals article as required for the Project. Delete submittals not required.

- A. Submittals: Comply with Division 01.
- B. Product Data: Submit manufacturer's product data, including preparation and installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, including elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, glazing, fasteners, hardware, finish, options, and design for each vinyl window type.
- D. Samples: Submit manufacturer's samples of colors and finishes of vinyl windows and hardware, minimum 2 inches by 3 inches.
- E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- F. Test Reports: Submit manufacturer's test reports from independent testing agency indicating vinyl windows meet or exceed specified performance requirements.
- G. Manufacturer's Project References: Submit manufacturer's list of 10 successfully completed vinyl window projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of vinyl windows furnished.
- H. Installer's Project References: Submit installer's list of 10 successfully completed vinyl window projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of vinyl windows installed.
- I. Operating and Cleaning Instructions: Submit manufacturer's operating and cleaning instructions.

J. Warranty Documentation: Submit manufacturer's standard warranty.

1.6 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Manufacturer regularly engaged in the manufacturing of vinyl windows of similar type to that specified for a minimum of 10 years.

B. Installer's Qualifications:

1. Installer regularly engaged in installation of vinyl windows of similar type to that specified for a minimum of 5 years.
2. Use persons trained for installation of vinyl windows.

Specifier Notes: Edit mock-ups as necessary. Delete if not required.
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C. Mock-ups: Construct mock-ups of vinyl windows for evaluation of preparation techniques and installation workmanship.

1. Construct mock-ups using same materials for use in the Work.
2. Construct mock-ups at locations determined by Architect.
3. Do not proceed until mock-ups are approved by Architect.
4. Approved Mock-ups: Standard for workmanship of windows.
5. Retain approved mock-ups.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage and Handling Requirements:

1. Store and handle materials in accordance with manufacturer's instructions.
2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
3. Store materials in clean, dry area indoors.
4. Do not store materials directly on floor.
5. Protect materials and finish during storage, handling, and installation to prevent damage.

1.8 WARRANTY

A. Warranty Period:

1. Residential: Limited lifetime.
2. Commercial: 10 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer: Simonton Windows, 3948 Townsfair Way, Suite 200, Columbus, Ohio 43219. 800-746-6686. www.simonton.com. archdetails@simonton.com.

Specifier Notes: Specify if substitutions will be permitted.

- B. Substitutions: [Not permitted] [Comply with Division 01].
- C. Single Source: Provide materials from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance of materials, components, accessories, and fabrication, unless more stringent requirements are indicated.
- B. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440.

Specifier Notes: Specify the performance class and grade. Consult Simonton Windows for more information.

1. Performance Class: [R] [LC] [_____].
2. Performance Grade: [Minimum 15 for R, minimum 25 for LC] [_____].

Specifier Notes: Specify the type and grade of forced entry resistance. Consult Simonton Windows for more information.

- C. Forced Entry Resistance: ASTM F 588, Type _____, Grade _____.
- D. Air Infiltration: Maximum air leakage through fixed glazing and framing areas of 0.30 cfm/sq ft of fixed wall area, as determined according to ASTM E 283 at a minimum static-air-pressure differential of 1.57 lbf/sq ft.
- E. Maximum Allowable Operating Force: 30 lbf.

Specifier Notes: Edit the following three paragraphs as required for the Project. Consult Simonton Windows for more information.

- F. Water Penetration: Minimum water resistance of [2.86 psf for entry level R15] [3.75 psf for entry level LC25] [4.50 psf for entry level C30] structural rating.
- G. Thermal Transmittance: NFRC 100 maximum whole window U-factor of [0.30] [_____].
- H. Solar Heat Gain Coefficient (SHGC): NFRC 200 maximum whole window SHGC of [0.30] [_____].

2.3 CASEMENT VINYL WINDOWS

Specifier Notes: Specify required standard and optional features for the casement vinyl windows. Not all combinations of features are available. Consult Simonton Windows for availability of specific combinations of features.

- A. Casement Vinyl Windows: "Reflections 5500" windows.

Specifier Notes: Specify casement vinyl windows in standard or custom sizes. Consult Simonton Windows for availability of custom-size windows.

- B. Size: [_____] [Indicated on the Drawings].

- C. Frame and Sash Color:

Specifier Notes: Specify frame and sash color.

1. Interior: "Decorum" [White] [Tan] [Driftwood] [Contemporary Oak] [Maple] [Antique Cherry].
2. Exterior: "Decorum" [White] [Brick] [Bronze] [Chocolate] [Cream] [Driftwood] [Pine] [Tan].

- D. Glass:

Specifier Notes: A variety of glass options are available. Consult Simonton Windows for more information.

1. Gas Fill: [Air] [Argon] [Krypton].
2. Glass Strength: [Single strength] [Double strength].
3. Glass Type: [Laminated] [Tempered] [Bronze Tint] [Grey Tint] [Obscure] ["ProSolar Shade" Low E glass with argon gas] ["ProSolar"] ["ProSolar Sun"].
4. Insulating Glass Unit Thickness: 3/4 inch.
5. Panes of Glass: [Dual pane] [Triple pane].
6. Spacer System: ["Intercept"] ["Supercept"] ["Super Spacer"].
7. Glass Packages: [Energy Star, optimized by region] [Custom].

- E. Grid:

1. Pattern: [Colonial] [Diamond] [Perimeter] [Double Perimeter] [Prairie] [Double Prairie] [Victorian].
2. Style: [Flat White] [Flat Tan] [Flat Driftwood] [Sculptured Brass] [Sculptured Antique Cherry] [Sculptured White] [Sculptured Tan] [Sculptured Driftwood] [Sculptured Maple] [Sculptured Contemporary Oak].
3. Type: Between-the-glass.

- F. Frame:

1. Construction: Welded.

2. Depth: 3-1/4 inches.
3. Exterior Aesthetics: Beveled.
4. Sill: Sloped.
5. Outer Walls Thickness: 0.072 inch.
6. Installation Option: [Replacement frame] [Integral fin with J] [Integral masonry flange].
7. Weep System: Integral.
8. Screen track: Integral.

G. Sash:

1. Construction: Welded.
2. Glazing Bead:
 - a. Color: Color matched.
 - b. Location: Internal.
3. Operation: Crank.
4. Outer Walls Thickness: 0.08 inch.

H. Hardware:

1. Crank Handle: Flush mount.
2. Locking System: Multi-point, single-lever locking stainless steel system.
3. Exposed Hardware Finish: [White] [Tan] [Driftwood] [Dark Bronze] [Brushed Nickel] [Oil-Rubbed Bronze] [Polished Brass].

I. Screen:

1. Frame: Extruded aluminum.
2. Mesh: Fiberglass.
3. Size: Full.

Specifier Notes: Delete capillary tubes if not required.

J. Capillary tubes.

2.4 AWNING VINYL WINDOWS

Specifier Notes: Specify required standard and optional features for the awning vinyl windows. Not all combinations of features are available. Consult Simonton Windows for availability of specific combinations of features.

A. Awning Vinyl Windows: "Reflections 5500" windows.

Specifier Notes: Specify awning vinyl windows in standard or custom sizes. Consult Simonton Windows for availability of custom-size windows.

B. Size: [_____] [Indicated on the Drawings].

C. Frame and Sash Color:

Specifier Notes: Specify frame and sash color.

1. Interior: "Decorum" [White] [Tan] [Driftwood] [Contemporary Oak] [Maple] [Antique Cherry].
2. Exterior: "Decorum" [White] [Brick] [Bronze] [Chocolate] [Cream] [Driftwood] [Pine] [Tan].

D. Glass:

Specifier Notes: A variety of glass options are available. Consult Simonton Windows for more information.

1. Gas Fill: [Air] [Argon] [Krypton].
2. Glass Strength: [Single strength] [Double strength].
3. Glass Type: [Laminated] [Tempered] [Bronze Tint] [Grey Tint] [Obscure] ["ProSolar Shade" Low E glass with argon gas] ["ProSolar"] ["ProSolar Sun"].
4. Insulating Glass Unit Thickness: 3/4 inch.
5. Panes of Glass: [Dual pane] [Triple pane].
6. Spacer System: ["Intercept"] ["Supercept"] ["Super Spacer"].
7. Glass Packages: [Energy Star, optimized by region] [Custom].

E. Grid:

1. Pattern: [Colonial] [Diamond] [Perimeter] [Double Perimeter] [Prairie] [Double Prairie] [Victorian].
2. Style: [Flat White] [Flat Tan] [Flat Driftwood] [Sculptured Brass] [Sculptured Antique Cherry] [Sculptured White] [Sculptured Tan] [Sculptured Driftwood] [Sculptured Maple] [Sculptured Contemporary Oak].
3. Type: Between-the glass.

F. Frame:

1. Construction: Welded.
2. Depth: 3-1/4 inches.
3. Exterior Aesthetics: Beveled.
4. Sill: Sloped.
5. Outer Walls Thickness: 0.072 inch.
6. Installation Option: [Replacement frame] [Integral fin with J] [Integral masonry flange].
7. Weep System: Integral.
8. Screen Track: Integral.

G. Sash:

1. Construction: Welded.
2. Glazing Bead:
 - a. Color: Color matched.
 - b. Location: Internal.
3. Operation: Crank.
4. Outer Walls Thickness: 0.08 inch.

- H. Hardware:
 - 1. Crank Handle: [Fixed] [Nesting].
 - 2. Locking System: Multi-point, single-lever locking system.
 - 3. Exposed Hardware Finish: [White] [Tan] [Driftwood] [Dark Bronze] [Brushed Nickel] [Oil-Rubbed Bronze] [Polished Brass].

- I. Screen:
 - 1. Frame: Extruded aluminum.
 - 2. Mesh: Fiberglass.
 - 3. Size: Full.

Specifier Notes: Delete capillary tubes if not required.
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- J. Capillary tubes.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine openings, substrates, anchorage, and supports to receive vinyl windows.
- B. Examine abutting wall flashing, vapor retarders, weather barriers, and other components to ensure weathertight window installation.
- C. Verify rough opening dimensions, sill levelness, and operational clearances are acceptable.
- D. Notify Architect of conditions that would adversely affect installation or subsequent use.
- E. Do not begin preparation or installation until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Prepare substrates in accordance with manufacturer's instructions.
- B. Clean substrates before window installation.

3.3 INSTALLATION

- A. Install vinyl windows in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install vinyl windows plumb, level, square, true to line, and without distortion.
- C. Anchor vinyl windows securely in place to supports.
- D. Verify vinyl windows are installed in proper relation to wall flashing and other abutting materials.

- E. Install vinyl windows weathertight.
- F. Verify vinyl windows open, close, and lock properly.

Specifier Notes: Delete the Field Quality Control article if not required.

3.4 FIELD QUALITY CONTROL

- A. Test vinyl windows after installation to verify amount of air infiltration and water resistance in accordance with AAMA 502.
 - 1. Demonstrate compliance with the following:
 - a. Allowable Air Leakage Rate: 1.5 times applicable rate for product type and performance class in accordance with AAMA/WDMA/CSA 101/I.S. 2/A440.
 - b. Allowable Water Infiltration: None permitted.
 - 2. Remove and replace with new windows and retest, if installed windows do not meet these requirements.

3.5 ADJUSTING

- A. Adjust operating components to ensure:
 - 1. Tight fit at contact points and weatherstripping.
 - 2. Smooth operation.
 - 3. Weathertight closure.
- B. Replace damaged glass.
- C. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- D. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

3.6 CLEANING

- A. Clean windows promptly after installation in accordance with manufacturer's instructions.
- B. Do not use harsh cleaning materials or methods that could damage windows.

3.7 PROTECTION

- A. Protect installed vinyl windows to ensure that, except for normal weathering on exterior surfaces, windows will be without damage or deterioration at time of Substantial Completion.

END OF SECTION