



SECTION 085313
VINYL (PVC) WINDOWS
DESIGNERS' SERIES,
8000 NEW CONSTRUCTION, 8500 REPLACEMENT

**** NOTE TO SPECIFIER **** Sierra Pacific Windows vinyl windows and sliding patio doors.

This section is based on the products of Sierra Pacific Windows which is located at:
1815 Water Street.; Merrill, WI 54452;

Toll Free Tel: 800-433-4873

Web: www.supersealwindows.com

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Vinyl windows, glazing, hardware. All windows of the types and sizes called for in this specification shall be furnished with necessary hardware and miscellaneous equipment as specified herein and shall be manufactured by Sierra Pacific Windows.

1.2 RELATED SECTIONS

- A. Section 01330 - Submittal Procedures.
- B. Section 01600 - Product Requirements.
- C. Section 06100 - Rough Carpentry.
- D. Section 06200 - Finish Carpentry.
- E. Section 07900 - Joint Sealers.
- F. Section 08810 - Glass and Glazing.

1.3 REFERENCES

- A. AAMA - American Architectural Manufacturers Association:
 1. AAMA/WDMA/CSA 101./I.S.2/A440-08 - Voluntary Standard for Aluminum and Poly Vinyl Chloride (PVC) Wood Windows and Glass Doors.
- B. ASTM - American Society for Testing and Materials:
 1. ASTM C1036-11e1 - Standard Specification for Flat Glass. This specification covers the quality requirements of flat, transparent, clear, and tinted glass.
 2. ASTM C1048-12 - Standard Specifications for Heat-Treated Glass - kind HS, kind FT Coated and Uncoated Glass.
 3. ASTM E283-04(2012) - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.
 4. ASTM E330-02(2010) - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
 5. ASTM E547-00(2009) - Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
 6. ASTM E2188-10 - Standard Test Method for Insulating Glass Unit Performance.
 7. ASTM E2189-10e1 - Standard Test Method for Testing Resistance to Fogging in insulated Glass.
 8. ASTM E2068 - Standard Test Method for Determination of Operating Force of Sliding Windows and Doors
 9. ASTM E987-88(2009) - Standard Test Methods for Deglazing Force of Fenestration Products
- C. IGCC - Insulated Glass Certification Council.
- D. NFRC - National Fenestration Rating Council:
 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.
 3. NFRC - 400 - Procedure for Determining Fenestration Product Air Leakage.
 4. NFRC - 501 - Procedure for Determining Fenestration Product Condensation Resistance Values.
- E. WDMA - Windows and Door Manufacturers Association:
 1. AAMA/WDMA/CSA 101./I.S.2/A440 - Voluntary Standard for Aluminum and Poly Vinyl Chloride (PVC) Wood Windows and Doors.
- F. SMA - Screen Manufacturers Association:
 1. SMA 1201R-2012- Specifications for Insect Screens for Windows, Sliding doors and Swinging Doors.

1.4 DEFINITIONS

- A. Performance Class Designations:
 1. R Commonly used in one and two-family dwellings.
 2. LC Commonly used in low-rise and mid-rise multi-family dwellings and other buildings where larger sizes and higher loading requirements are expected.
 3. CW commonly used in low-rise and mid-rise buildings where larger sizes, higher loading requirements, limits on deflection, and heavy use are expected.
 4. AW commonly used in high-rise and mid-rise buildings to meet increased loading requirements and limits on deflection, and in buildings where frequent and extreme use of the fenestration products is expected.

- B. Performance Grade (PG) Designations: Actual design pressure that is designated by a number following the type and class designation in pounds force per square foot.
- C. Minimum test size: The smallest size unit permitted for performance class (gateway test size). Products must be tested at the minimum test size or at a size larger than minimum test size to comply with requirements for performance class.

1.5 PERFORMANCE REQUIREMENTS.

- A. Air infiltration (air leakage) shall not exceed the following when tested at 1.57 psf when tested in accordance with ASTM E283: 0.30 cfm per square foot of frame.
- B. Water penetration resistance - There shall be no water penetration when tested at the desired/ specified pressure in accordance with ASTM E547.
- C. Structural load testing - Product shall meet the damaged and permanent deflection pass/fail criteria as stated in AAMA/NWWDA 101/I.S.2/A440-08 when tested in accordance with ASTM E330.

1.6 SUBMITTALS

- A. Shop Drawings: Submit under provisions of Section 01300.
- B. [Product Data]: Submit manufacturer's catalog data on each product to be used in accordance with Section 01330.
- C. Samples: Submit corner section in accordance with Section 01330. Include glazing system and two complete sets of color chips representing manufacturer's full range of available colors.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. A manufacturer capable of fabricating vinyl windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.
- B. Installer Qualifications:
 - 1. An installer acceptable to vinyl window manufacturer for installation of units required for this Project.
- C. Product Requirements:
 - 1. Comply with AAMA/NWWDA 101/I.S. 2-08, "North American Fenestration Standard Voluntary Performance Specification for Windows, Skylights and Glass Doors," for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
 - 2. Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging in an upright position off the ground in a clean, dry area until ready for installation. Not to be stored in containers that exceeds 130 Fahrenheit degrees.

1.9 PROJECT CONDITIONS

- A. Field Measurements: Verify vinyl window openings by field measurements before fabrication and indicate measurements on Shop Drawings.
- B. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.10 WARRANTY

- A. Warranty Period:
 - 1. One Year Warranty: Glass Stress Cracks.
 - a. See Superseal Windows and Doors Product Warranty for details and exclusions.
 - 2. Lifetime Limited Warranty: Non-Glass Components.
 - a. See Superseal Windows and Doors Product Warranty for details and exclusions.
 - 3. Lifetime Limited Warranty: Insulated Glass.
 - a. See Superseal Windows and Doors Product Warranty for details and exclusions.
 - 4. Limited Warranty: Exterior / Interior Factory Colored Paint Finish.
 - a. See Superseal Windows and Doors Product Warranty for details and exclusions.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Sierra Pacific Windows, which is located at: 1815 Water Street.; Merrill, WI 54452; Toll Free Tel: 800-433-4873; Tel: 715-748-2011; Web: www.supersealwindows.com
- B. Substitutions: Not permitted.

2.2 APPLICATIONS/SCOPE

- A. Single Slider:
 - 1. Vinyl Designers' Series Single Slider Windows as manufactured by Sierra Pacific Windows.
 - a. Performance: Class LC-PG30, standard product, maximum single size 77 1/2 inches (1969 mm) by 59 1/2 inches (1511 mm). Single units only.
 - b. Performance: Class LC-PG25, standard product, maximum single size 71 1/2 inches (1816 mm) by 71 1/2 inches (1816 mm). Single units only.
 - c. Performance: Class LC-PG40, standard product, maximum single size 59 1/2 inches (1511 mm) by 59 1/2 inches (1511 mm) with 30 inch transom factory stacked.
 - 2. Vinyl Designers' Series Triple Slider Windows as manufactured by Sierra Pacific Windows.
 - a. Performance: Class HS-LCG35, standard product, maximum single size 95 1/2 inches (2426 mm) by 59 1/2 inches (1511 mm). Single units only.
 - 3. Sweep Locks: Positive locking mechanism.
 - a. 1 lock for basic unit frame height of 28" and less.
 - b. 2 locks for basic unit frame height of 28" and larger.

4. Operation:
 - a. Single Slider - Left/Fixed; Fixed/Right.
 - b. Triple Slider – Left/Fixed/Right
5. Operating sash bottom rollers.
6. Operating sash is exterior glazed. Top fixed lite is interior glazed.
7. Jamb width Standard: 1-15/16 inches (49 mm). Measured from back of nail fin to inside of frame.
8. Extension Jambs: 4-9/16 inches (116 mm).
 - a. Primed Pine
 - b. Natural Pine
 - c. Prefinished White
9. Extension Jambs: 6-9/16 inches (166 mm).
 - a. Primed Pine
 - b. Natural Pine
 - c. Prefinished White
10. Extension Jambs: Custom size.
11. Wood jamb extension shipped loose.
 - a. Applied, upon request.
12. Weatherproofing: Weatherstrip located on sash and frame.
13. Interlocking sash at vertical meeting stile.
14. 50/50 Sash Split.
15. 2 Weep holes on exterior of frame at sill location.
16. Frame exterior color: White, Beige or Painted
17. Frame interior color: White or Beige
18. Frame type:
 - a. Integral J-channel
 - b. Non-J-channel
 - c. No nailing fin.

B. Single Hung:

1. Vinyl Designers' Series Single Hung Windows as manufactured by Sierra Pacific Windows
 - a. Performance: Class LC-PG50, standard product, maximum single size 35 1/2 inches (902 mm) by 71 1/2 inches (1816 mm). Single/Mulled units.
 - b. Performance: Class LC-PG30, standard product, maximum single size 47 1/2 inches (1207mm) by 77 1/2 inches (1969 mm). Single/Mulled units.
 - c. Performance: Class LC-PG35, standard product, maximum mulled size 71 1/2 inches (1816 mm) by 71 1/2 inches (1816) 2-wide single hung with 71 1/2 inches (1816 mm) by 23 1/2 inches (597 mm) 2-wide transom factory stacked with reinforced horizontal mull.
 - d. Performance: Class LC-PG35, standard product, maximum mulled size 107 1/2 inches (2731 mm) by 71 1/2 inches (1816) 3-wide single hung with 107 1/2 inches (2731 mm) by 23 1/2 inches (597 mm) 2-wide transom factory stacked with reinforced vertical mull.
2. 1, 2, 3 Wide units available. Solid wood 1/2 inch mulls standard.
3. Fixed top sash with a tilt in bottom sash.
4. Sweep Locks: Positive locking mechanism.
 - a. 1 lock for basic unit frame width of 28" and less.
 - b. 2 locks for basic unit frame width of 28" and larger.
5. Operating sash is exterior glazed. Top fixed lite is interior glazed.
6. Jamb width Standard: 1-15/16 inches (49 mm). Measured from back of nail fin to inside of frame.

7. Extension Jamb: 4-9/16 inches (116 mm).
 - a. Primed Pine
 - b. Natural Pine
 - c. Prefinished White
8. Extension Jamb: 6-9/16 inches (166 mm).
 - a. Primed Pine
 - b. Natural Pine
 - c. Prefinished White
9. Extension Jamb: Custom.
10. Wood jamb extension shipped loose.
 - a. Applied, upon request.
11. Weatherproofing: Weatherstrip located on sash and frame.
12. Interlocking sash at horizontal meeting rail.
13. Constant Force Balances
14. 50/50 Sash Split.
15. 2 Weep holes on exterior of frame at sill location.
16. Frame exterior color: White, Beige or Painted
17. Frame interior color: White or Beige
18. Frame type
 - a. Integral J-channel
 - b. Non-J-channel
 - c. No nailing fin.

C. Single Slider & Single Hung Fixed Picture:

1. Vinyl Designers' Series Single Slider & Single Hung Picture Windows, as manufactured by Sierra Pacific Windows
 - a. Performance: Class CW-PG50, standard product, maximum single size 47 1/2 inches (1207 mm) by 65 1/2 inches (1664 mm) or 71 1/2 inches (1816 mm) by 59 1/2 inches (1511 mm). Single units only.
2. Jamb width Standard: 1-15/16 inches (49 mm). Measured from back of nail fin to inside of frame.
3. Extension Jamb: 4-9/16 inches (116 mm).
 - a. Primed Pine
 - b. Natural Pine
 - c. Prefinished White
4. Extension Jamb: 6-9/16 inches (166 mm).
 - a. Primed Pine
 - b. Natural Pine
 - c. Prefinished White
5. Extension Jamb: Custom.
6. Wood jamb extension shipped loose.
 - a. Applied, upon request.
7. Interior glazed.
8. Frame exterior color: White, Beige or Painted
9. Frame interior color: White or Beige
10. Frame type
 - a. Integral J-channel.
 - b. Non-J-channel
 - c. No nailing fin.

D. Accessories:

1. 1/2 inch (13mm) Drywall return, White or Beige
2. 5/8 inch (16mm) Drywall return, White or Beige
3. 3/4 inch (19mm) Drywall return, White or Beige
4. Direct mull coupler, White, Beige or Painted

5. 1/2 inch mull coupler, White, Beige or Painted
6. Single stud pocket cover, White, Beige or Painted
7. Double stud pocket cover, White, Beige or Painted
8. J-channel drip cap, vinyl, White, Beige or Painted

- E. Insect Screen: Roll formed-aluminum members, mesh fabric.
1. Half screen.
 2. Frame Color: White, Beige or Painted
 3. Fiberglass mesh.
 - a. Custom mesh.

2.3 GLAZING

- A. Factory-Glazed Fabrication: Comply with requirements of Section 08810 and with AAMA/WDMA/CSA 101./I.S.2/A440.
1. Safety Glass: Provide tempered products complying with testing requirements in 16 CFR 1201, for Category II materials.
 - a. Both Lites
 - b. 1 lite interior only.
 - c. 1 lite exterior only.
- B. Glass Type: Clear 3/4" thickness
- C. Glass Type: Low E Insulated. 3/4" thickness
 Color: Clear (No Tint).
 Color: Bronze.
 Color: Grey.
 Color: Green
 Color: Greylite #31
 Color: Custom
- D. Glass Type: Clear Low E 366
- E. Glass Type: Clear Low E 366 w/i89
- F. Glass Type: Clear Low E 180
- G. Glass Type: Clear Low E 180 w/i89
- H. Glass Type: Clear Low E 340
- I. Grille Type: Within airspace of insulated glass units and/or permanently applied to exterior and interior of glass with Equal, Prairie, Craftsman, Ladder, Cross, Cottage or Custom designs.
 - a. 5/8" Flat Grille in Air Space
 - b. 11/16" Contour Grille in Air Space
 - c. 7/8" or 2" Simulated Divided Lite

2.4 CONSTRUCTION

- A. Interior: Vinyl.
- B. Exterior Surface: Vinyl.
- C. Weatherproofing: Provide perimeter weatherstrip on operable panels.

2.5 HARDWARE

- A. Locking Hardware: Single hung sash lock. Surface Mounted locks with positive locking mechanism. Constant force balance.
- B. Locking Hardware: Single slider sash lock. Surface Mounted locks with positive locking mechanism.
- C. Exterior Finish:
 - 1. White, Beige or Painted in standard color palette
 - 2. Interior Finish: White or Beige

2.6 FABRICATION

- A. Fabricate vinyl windows in sizes indicated.
- B. Fabricate vinyl windows that are reglazable without dismantling sash or ventilator framing.
- C. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and ventilator, unless otherwise indicated.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. Finished Windows: Replace windows that are damaged or do not comply with requirements. Windows may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION