SECTION 08 53 13

VINYL WINDOWS AND DOORS

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\*\* NOTE TO SPECIFIER \*\* Paradigm Window Solutions; vinyl windows and doors.
This section is based on the products of Paradigm Window Solutions, which is located at:
56 Milliken St.
Portland, ME 04103
Toll Free Tel: 877-9-WINDOW
Tel: 207-878-9197
Fax: 207-797-6156
Email: [request info (dquinion@paradigmwindows.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Paradigm+Window+Solutions&coid=39968&rep=&fax=207-797-6156&message=RE:%20Spec%20Question%20(08563par):%20%20&mf=)
Web: <http://www.paradigmwindows.com>
 [ [Click Here](https://www.arcat.com/arcatcos/cos39/arc39968.html) ] for additional information.
Paradigm Window Solutions has raised the standard for vinyl windows by introducing a new set of performance criteria driven by those who know best: consumers, architects and contractors. Our full line of vinyl windows are built for a lifetime of airtight performance, with a sturdier fusion-welded sash and state-of-the-art weather-stripping for maximum durability. With Energy Star qualification, tilt-in sash for easy cleaning, and maintenance-free care, Paradigm windows truly deliver exceptional value.
Paradigm offers a limitless collection of half-rounds, arches, gothic arch tops, and other exciting shapes. Engineered for aesthetics as well as meeting local building codes, Paradigm allows you to design with a full line of quality and maintenance-free windows. Compliment your next plan with a choice of Warm White or Toasted Almond vinyl windows and reflect your personal style. Available for both new construction and replacement units.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete types not if required.

* + 1. Vinyl windows of the following types:
			1. Double hung. (8311) (8321)
			2. Single hung. (8381) (8382)
			3. Slider. (8341) (8341EP)
			4. Casement. (8351)
			5. Awning. (8352)
			6. Fixed casement. (8361)
			7. Geometric picture. (8371) (8396)
		2. Vinyl sliding patio doors. (8394) (8394HP)
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for the project.

* + 1. Section 05 40 00 - Cold-Formed Metal Framing.
		2. Section 06 10 00 - Rough Carpentry.
		3. Section 07 91 26 - Joint Fillers.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete any references below not relevant to this project; add others as required.

* + 1. American Architectural Manufacturers Association (AAMA):
			1. AAMA/NWWDA 101/I.S. 2 - Voluntary Standard for Aluminum and Poly (Vinyl Chloride) (PVC) Prime Windows and Glass Doors.
			2. AAMA 615 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings On Plastic Profiles.
			3. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.
			4. AAMA 1701.2 - Voluntary Standard for Utilization in Manufactured Housing for Primary Windows and Sliding Glass Doors.
			5. Certification Program for Vinyl Window Manufacturers.
		2. ASTM International (ASTM):
			1. ASTM E283 - 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 E330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
			3. ASTM E547 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
			4. ASTM E774 - Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units.
		3. National Fenestration Rating Council (NFRC):
			1. NFRC 100 - Thermal Properties; National Fenestration Rating Council.
			2. NFRC 400 - Procedure for Determining Fenestration Product Air Leakage.
		4. Federal Specifications: (Fed. Spec.)
			1. L-S-125B - Screening, Non-metallic, Insect.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's standard details and catalog data demonstrating compliance with referenced standards; include manufacturer's standard installation instructions.
			2. Manufacturer's product drawings showing details of fabrication, hardware, weather stripping, fasteners, screens, glazing, accessories, and related items.
		3. Shop Drawings: Manufacturer's window and door schedules including all dimensions, finishes, accessories, and site specific installation details.

\*\* NOTE TO SPECIFIER \*\* Delete if replacement units not required.

* + - 1. For replacement units, indicate dimensions of each existing opening on the shop drawings.
		1. Verification Samples: Operating sample of each window type specified illustrating fabrication, hardware, glazing, screen, and finish.
		2. Test Reports: Submit test results for each model for air infiltration, water resistance, and uniform loading in accordance with the referenced standards specified.
		3. Certification of Compliance: Submit certificates that equivalent windows have been successfully tested and meet the requirements specified herein for air infiltration and water penetration. Label window units certifying conformance with AAMA 101 I.S.2-05, NFRC 100-04, and Energy Star.
		4. Closeout Submittals: Warranty documents, properly executed.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: AAMA certified fabricator.
		2. Installer Qualifications: Minimum 2 years experience and acceptable to the manufacturer.
	2. DELIVERY, STORAGE AND HANDLING
		1. Deliver windows to project site in undamaged condition; handle windows to prevent damage to components and to finishes.
		2. Store windows out of contact with ground; protect windows from weather and construction traffic in well-ventilated area.
	3. WARRANTY
		1. Furnish manufacturer's standard limited warranty against deficiencies in materials or fabrication.

\*\* NOTE TO SPECIFIER \*\* Delete warranty types not required.

* + - 1. Window 20 Year Commercial Warranty.
			2. Window Lifetime Limited Warranty for Original Homeowner.
			3. Insulated Glass 20 Year Commercial Warranty.
			4. Insulated Glass Lifetime Limited Warranty for Original Homeowner.
			5. Service Warranty.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturers: Paradigm Window Solutions; 56 Milliken St., Portland, ME 04103. ASD. Toll Free Tel: 877-9-WINDOW; Phone: 207-878-9197; Fax: 207-797-6465; Email: \_\_\_\_\_\_; Web: www.Paradigmwindows.com.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. DOUBLE HUNG VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.
Delete Basis of Design paragraph not required.

* + 1. Basis of Design: Model 8311, Standard Double Hung Windows as manufactured by Paradigm Window Solutions.
			1. Standards Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 44 x 66 in (1118 x 1676 mm).

Design Pressure Rating (DP): R40.

Structural Test Pressure: 60 psf (2.87 kPa); tested at 150 percent of DP.

Water Infiltration: 6.00 psf (0.29 kPa); tested at 15 percent of DP.

Air Infiltration: 0.01 cfm per sq ft (.05 liter per sec per sq m).

* + - * 1. Size Tested: 44 x 66 in (1118 x 1676 mm).

Design Pressure Rating (DP): HUD Zone III.

Structural Test Pressure: Pass; tested at 150 percent of DP.

Water Infiltration: - ; 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (.05 liter per sec per sq m).

* + - * 1. Size Tested: 48 x 80 in (1219 x 2032 mm).

Design Pressure Rating (DP): R30.

Structural Test Pressure: 52.5 psf (2.51 kPa); tested at 150 percent of DP.

Water Infiltration: 4.50 psf (0.22 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (.05 liter per sec per sq m).

* + 1. Basis of Design: Model 8321, Premium Double Hung Windows as manufactured by Paradigm Window Solutions.
			1. Standards Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 44 x 60 (1118 x 1524 mm).

Design Pressure Rating (DP): R40.

Structural Test Pressure: 90.0 psf (4.31 kPa); tested at 150 percent of DP.

Water Infiltration: 6.00 psf (0.29 kPa); 15 percent of DP rating.

Air Infiltration: 0.05 cfm per sq ft (0.25 Liters per sec per sq m).

* + - * 1. Size Tested: 52 x 72 in (1321 x 1829 mm).

Design Pressure Rating (DP): C50 (Enhanced performance package).

Structural Test Pressure: 75.0 psf (3.59 kPa); tested at 150 percent of DP

Water Infiltration: 7.5 psf (0.36 kPa); 15 percent of DP rating.

Air Infiltration: 0.05 cfm per sq ft (0.25 Liters per sec per sq m).

* + - * 1. Size Tested: 56 x 91 in (1422 x 2311 mm)

Design Pressure Rating (DP): C35 (Enhanced performance package).

Structural Test Pressure: 52.5 psf (2.51 kPa); tested at 150 percent of DP

Water Infiltration: 4.25 psf (0.2 kPa) 15 percent of DP rating.

Air Infiltration: 0.05 cfm per sq ft (0.25 Liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 in (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
			5. Head and jamb members: Integral screen stops. Interior horizontal top surfaces of meeting rails to be flat and in the same plane. Meeting rails have an integral interlock with two lines of pile weather strip provided.
			6. Upper and lower sash shall have the same glass size.
		2. Balance Mechanism: Two per sash, 1/2 in (13 mm) stainless steel, silicone pre-treated, constant force coil spring balance, enclosed in rustproof case, with jamb liner cover from top of the bottom sash to the head of the window unit. Removable for field service. Finish to match window frame. Interlocking pivot bar, for integral frame alignment with sash during installation.
		3. Locking Device: Cam action sweep sash locks.
			1. Window Width Greater Than 32 in (813 mm): Two locks.
			2. Window Width Less Than 30 in (762 mm): One lock.
			3. Lower Sash: Continuous, integral lift rail at bottom of sash.
			4. Upper Sash: Continuous, integral pull-down member on sash top rail.
			5. Tilt Latches: Two in top of each sash, mortised into the sash top rails.
		4. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E-774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, low VOC, low heat gain, waterborne paint finish; exterior and/or interior of window.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect.
			2. Color: \_\_\_\_\_\_.
		1. Weather Stripping: Where sash meets jamb, triple weather-strip sash using silicone treated pile with mylar center fin bonded to backing.
		2. Insect Screening: Fed. Spec. L-S-125, Type II, Class 2 (plastic coated or impregnated fibrous glass yarn) of standard color as approved; mesh 18 X 16.

\*\*NOTE TO SPECIFIER \*\* Vent stops are standard on the replacement windows and as an option on new construction. Delete if not required.

* + 1. Vent stops.
		2. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above.
			5. Fasteners: Stainless steel, corrosion resistant.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.6 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Standard Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further mm reinforcement attached to window frames; .080 x 1-3/8 x 12 in (2.03 x 35 x 305 mm) stainless steel straps and appropriate stainless steel fasteners.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory EP Mulls: Reinforced with extruded aluminum hollow box reinforcement, 3-1/8 x 1-1/4 in (79 x 32 mm) of 6005-T5 alloy and assembled utilizing interior and exterior closures with proprietary adhesive and sealant application patterns. Further reinforcement attached to adjoining construction with .080 in (2 mm) stainless steel "Z" brackets and appropriate stainless steel fasteners. EP Mull in various configurations tested to a minimum structural rating of DP60.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.
			1. Weather Stripping: Insure a weathertight seal meeting the infiltration tests specified herein. Replaceable factory applied weather-stripping of manufacturer's stock type.
				1. Between Sill and Sash: EPDM covered open cell foam.
				2. Sliding surfaces: Silicone treated pile, with a mylar center fin bonded to a plastic-backing strip.
			2. Screens: One for each operable window unit. Painted windows to have full screens only. Secure insect tight perimeter fit. Easily removable from inside building. Interchangeable with same size similar type windows. No exposed fasteners and latches. Guides, stops, and hardware to be manufacturer's standard.
			3. Screen Frames: Extruded aluminum sections not less than 7/16 x 1-1/4 x 0.050 in (11 x 32 x 1.3 mm) thick with removable vinyl splines. Exposed Surface Finish: Comply with AAMA 603.8. Total dry thickness not less than 0.8 mil (0.025 mm). Same color as window units.
			4. Screening: Weave parallel to frame stretched to present a smooth appearance. Conceal edges of screening in the spline channel.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. SINGLE HUNG VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* Thermopane double Glazed Low E2 insulating glass and argon gas fill may be optional. Contact a manufacturer representative for more details.
Delete Basis of Design paragraph not required.

* + 1. Basis of Design: Model 8381, Standard Single Hung Windows as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 36 x 60 in (914 x 1524 mm).

Window Type: H.

Design Pressure Rating (DP): R50.

Structural Test Pressure: 90 psf (4.31 kPa); tested at 150 percent of DP.

Water Infiltration: 7.50 psf (0.36 kPa); 15 percent of DP rating.

Air Infiltration: 0.06 cfm per sq ft (.30 liters per sec per sq m).

* + - * 1. Size Tested: 56 x 91 in (1422 x 2311 mm).

Window Type: H.

Design Pressure Rating (DP): C30.

Structural Test Pressure: 45 psf (2.15 kPa); tested at 150 percent of DP.

Water Infiltration: 4.5 psf (0.22 kPa); 15 percent of DP rating.

Air Infiltration: 0.07 cfm per sq ft (0.35 liters per sec per sq m).

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.

* + 1. Basis of Design: Model 8382, Hybrid Single Hung Windows, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 44 x 66 in (1118 x 1676 mm).

Window Type: H.

Design Pressure Rating (DP): R40.

Structural Test Pressure: 60 psf (2.87 kPa); tested at 150 percent of DP.

Water Infiltration: 10.50 psf (0.5 kPa); 15 percent of DP rating.

Air Infiltration: 0.15 cfm per sq ft (0.76 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 in (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
			5. Head and jamb members: Integral screen stops. Interior horizontal top surfaces of meeting rails to be flat and in the same plane. Meeting rails have an integral interlock with two lines of pile weather strip provided.
			6. Upper and lower sash shall have the same glass size.

\*\* NOTE TO SPECIFIER \*\* Applies to standard window model 8381. Delete if not required.

* + 1. Balance Mechanism:
			1. Two per sash, 1/2 in (13 mm) stainless steel, constant force coil spring balance, enclosed in rustproof case, with jamb liner cover, from top of the bottom sash to the head of the window unit. Removable for field service. Finish to match window frame. Interlocking pivot bar, for integral frame alignment with sash during installation.

\*\* NOTE TO SPECIFIER \*\* Applies to premium window model 8382. Delete if not required.

* + 1. Balance Mechanism,
			1. Lower Sash: Two, 1/2 in (13 mm) stainless steel, constant force coil spring balance, enclosed in rustproof case, with jamb liner cover, from top of the bottom sash to the head of the window unit. Removable for field service. Finish to match window frame. Interlocking pivot bar, for integral frame alignment with sash during installation.
			2. Upper Sash: Two inverted block & tackle spring balances. Removable jamb stop inserts below with integral screen track. Interlocking pivot bar, for integral frame alignment with sash during installation. Removal of insect screen and stops will allows top sash to be lowered and tilted in for cleaning. Balances provide positive locking of sash when tilted in for cleaning.
		2. Locking Device: Cam action sweep sash locks.
			1. Window Width Greater Than 32 in (813 mm): Two locks.
			2. Window Width Less Than 30 in (762 mm): One lock.
			3. Sash: Continuous, integral lift rail at bottom of sash.
			4. Tilt latches: Two in top of each sash, mortised into the sash top rails.
		3. Glass and Glazing: Integral glazing type system.
			1. Standards compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, low VOC, low heat gain, waterborne paint finish; exterior and/or interior of window.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect.
			2. Color: \_\_\_\_\_\_.
		1. Caulking and Sealing: As specified or recommended by manufacturer.
		2. Weather Stripping: Where sash meets jamb, triple weather-strip sash using silicone treated pile with mylar center fin bonded to backing.
		3. Insect Screening: Fed. Spec. L-S-125, Type II, Class 2 (plastic coated or impregnated fibrous glass yarn) of standard color as approved; mesh 18 X 16.

\*\*NOTE TO SPECIFIER \*\* Vent stops are standard on the replacement windows and as an option on new construction. Delete if not required.

* + 1. Vent stops.
		2. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above.
			5. Fasteners: Stainless steel, corrosion resistance.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.6 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.
			7. Factory Standard Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further reinforcement attached to window frames; 080 x 1-3/8x 12 in (2.03 x 35 x 305 mm) stainless steel straps and appropriate stainless steel fasteners.
			8. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids..
				4. Simulated divided lites.
			1. Weather Stripping: Insure a weathertight seal meeting the infiltration tests specified herein. Replaceable factory applied weather-stripping of manufacturer's stock type.
				1. Between Sill and Sash: EPDM covered open cell foam.
				2. Sliding surfaces: Silicone treated pile, with a mylar center fin bonded to a plastic-backing strip.
			2. Screens: One for each operable window unit. Painted windows to have full screens only. Secure insect tight perimeter fit. Easily removable from inside building. Interchangeable with same size similar type windows. No exposed fasteners and latches. Guides, stops, and hardware to be manufacturer's standard.
			3. Screen Frames: Extruded aluminum sections not less than 7/16 x 1-1/4 x 0.050 in (11 x 32 x 1.3 mm) thick with removable vinyl splines. Exposed Surface Finish: Comply with AAMA 603.8. Total dry thickness not less than 0.8 mil (0.025 mm). Same color as window units.
			4. Screening: Weave parallel to frame stretched to present a smooth appearance. Conceal edges of screening in the spline channel.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required

* 1. SLIDER VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.
Delete Basis of Design paragraphs not required.

* + 1. Basis of Design: Slider Windows, Model 8341, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 120 x 60 in (30480 x 1524 mm).

Design Pressure Rating (DP): R25.

Structural Test Pressure: 37.50 psf (1.8 kPa); tested at 150 percent of DP.

Water Infiltration: 5.25 psf (0.25 kPa); 15 percent of DP rating.

Air Infiltration: 0.02 cfm per sq ft (0.10 liters per sec per sq m).

* + - * 1. Size Tested: 60 x 38 in (1524 x 965 mm).

Design Pressure Rating(DP): R50.

Structural Test Pressure: 75.00 psf (3.59 kPa); tested at 150 percent of DP.

Water Infiltration: 7.50 psf (0.36 kPa); 15 percent of DP rating.

Air Infiltration: 0.02 cfm per sq ft (0.10 liters per sec per sq m).

* + 1. Basis of Design: EP Slider Windows, Model 8341EP, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 72 x 66 in (1829 x 1676 mm).

Window Type: HS

Design Pressure Rating (DP): C35.

Structural Test Pressure: 52.5 psf (2.51 kPa); 150 percent of DP.

Water Infiltration: 6.75 psf (0.32 kPa); 15 percent of DP rating.

Air Infiltration: 0.02 cfm per sq ft (0.10 liters per sec per sq m).

* + 1. Basis of Design: Tilt Slider Windows, Model 8384, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 74 x 63 in (1880 x 1600 mm).

Window Type: HS.

Design Pressure Rating (DP): R30.

Structural Test Pressure: 45.0 psf (2.15 kPa); 150 percent of DP.

Water Infiltration: 4.59 psf (0.22 kPa); 15 percent of DP rating.

Air Infiltration: 0.06 cfm per sq ft (0.30 liters per sec per sq m).

* + - * 1. Size Tested: 108 x 63 in (2743 x 1600 mm).

Window Type: HS.

Design Pressure Rating (DP): LC30.

Structural Test Pressure: 45.0 psf (2.15 kPa); 150 percent of DP.

Water Infiltration: 6.00 psf (0.29 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (0.05 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
			5. Head and Jamb Members: Integral screen stops. Interior horizontal top surfaces of meeting rails to be flat and in the same plane. Meeting rails have an integral interlock with two lines of pile weather strip provided.
			6. Upper and lower sash shall have the same glass size.
		2. Operating Hardware: Operating sashes to have two tandem brass rollers in a molded nylon housing mortised into the bottom of the panels to provide smooth operation.
		3. Locking Device: Operating sashes to have two cam-action sweep sash locks and one continuous, integral pull at their edge opposite the lock rail.
		4. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, low VOC, low heat gain, waterborne paint finish; exterior and/or interior of window.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect.
			2. Color: \_\_\_\_\_\_.
		1. Weather Stripping: Where sash meets jamb, triple weather-strip sash using silicone treated pile with mylar center fin bonded to backing.
		2. Insect Screening: Fed. Spec. L-S-125, Type II, Class 2 (plastic coated or impregnated fibrous glass yarn) of standard color as approved; mesh 18 X 16.
		3. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above.
			5. Fasteners: Stainless steel, corrosion resistance.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.6 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further reinforcement attached to window frames; .080 x 1-3/8x 12 in (2.03 x 35 x 305 mm) stainless steel straps and appropriate stainless steel fasteners.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.
			1. Weather Stripping: Insure a weathertight seal meeting the infiltration tests specified herein. Replaceable factory applied weather-stripping of manufacturer's stock type.
				1. Between Sill and Sash: EPDM covered open cell foam.
				2. Sliding Surfaces: Silicone treated pile, with a mylar center fin bonded to a plastic-backing strip.
			2. Screens: One for each operable window unit. Painted windows to have full screens only. Secure insect tight perimeter fit. Easily removable from inside building. Interchangeable with same size similar type windows. No exposed fasteners and latches. Guides, stops, and hardware to be manufacturer's standard.
			3. Screen Frames: Extruded aluminum sections not less than 7/16 x 1-1/4 x 0.050 in (11 x 32 x 1.3 mm) thick with removable vinyl splines. Exposed Surface Finish: Comply with AAMA 603.8. Total dry thickness not less than 0.8 mil (0.025 mm). Same color as window units.
			4. Screening: Weave parallel to frame stretched to present a smooth appearance. Conceal edges of screening in the spline channel.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required

* 1. CASEMENT VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.

* + 1. Basis of Design: Casement Windows, Model 8351, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 36 x 66 in (914 x 1676 mm).

Window Type: C.

Design Pressure Rating (DP): C65.

Structural Test Pressure: 97.5 psf (4.67 kPa); 150 percent of DP.

Water Infiltration: 12.0 psf (0.57 kPa); 15 percent of DP rating.

Air Infiltration: 0.05 cfm per sq ft (0.25 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 in (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
		2. Operating Hardware: Roto X-Drive manufactured by Roto Frank of Chester, CT. Egress and Washable hardware shall be provided as specified. All operating handles shall be folding type.
		3. Locking Device: Roto X-Drive multi-point progressive locking system manufactured by Roto Frank, Chester, CT. Materials shall be high pressure zinc die-cast handle, powder coated steel lock bars. Number of lock points determined by window size.
		4. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, low VOC, low heat gain, waterborne paint finish; exterior and/or interior of window.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect.
			2. Color: \_\_\_\_\_\_.
		1. Weather Stripping: Three contact points provided on all four sides where sash and frame make contact. EPDM covered open cell foam weather strip on the sash. Santoprene or equivalent TPR compression gasket and a co-extruded flexible PVC fin weather strip on the frame.
		2. Insect Screening: Fed. Spec. L-S-125, Type II, Class 2 (plastic coated or impregnated fibrous glass yarn) of standard color as approved; mesh 18 X 16.
		3. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above
			5. Fasteners: Stainless steel, corrosion resistance.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.59 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further reinforcement attached to window frames; .080 x 1-3/8x 12 in (2.03 x 35 x 305 mm) stainless steel straps and appropriate stainless steel fasteners.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness. .

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness. .

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.
			1. Weather Stripping: Insure a weathertight seal meeting the infiltration tests specified herein. Replaceable factory applied weather-stripping of manufacturer's stock type.
				1. Between Sill and Sash: EPDM covered open cell foam.
				2. Sliding surfaces: Silicone treated pile, with a mylar center fin bonded to a plastic-backing strip.
			2. Screens: One for each operable window unit. Painted windows to have full screens only. Secure insect tight perimeter fit. Easily removable from inside building. Interchangeable with same size similar type windows. No exposed fasteners and latches. Guides, stops, and hardware to be manufacturer's standard.
			3. Screen Frames: Extruded aluminum sections not less than 7/16 x 1-1/4 x 0.050 in (11 x 32 x 1.3 mm) thick with removable vinyl splines. Exposed Surface Finish: Comply with AAMA 603.8. Total dry thickness not less than 0.8 mil (0.025 mm). Same color as window units.
			4. Screening: Weave parallel to frame stretched to present a smooth appearance. Conceal edges of screening in the spline channel.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required

* 1. AWNING VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.

* + 1. Basis of Design: Awning Window, Model 8352, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 48 x 32 in (1219 x 813 mm).

Window Type: AP.

Design Pressure Rating (DP): C65.

Structural Test Pressure: 97.5 psf (4.67 kPa); 150 percent of DP.

Water Infiltration: 12.00 psf (0.57 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (0.05 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 in (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
		2. Operating Hardware: Roto X-Drive manufactured by Roto Frank of Chester, CT. Egress and Washable hardware shall be provided as specified. All operating handles shall be folding type.
		3. Locking Device: Roto X-Drive locking system manufactured by Roto Frank, Chester, CT. Materials shall be high pressure zinc die-cast handle, powder coated steel lock bars. Number of lock points determined by window size.
		4. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, Royal Spectra-Coat as manufactured by Royal Bond Co., Ontario, Canada.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on exterior surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect from 24 standard colors.
			2. Color: \_\_\_\_\_\_.
		1. Weather Stripping: Three contact points provided on all four sides where sash and frame make contact. EPDM covered open cell foam weather strip on the sash. Santoprene or equivalent TPR compression gasket and a co-extruded flexible PVC fin weather strip on the frame.
		2. Insect Screening: Fed. Spec. L-S-125, Type II, Class 2 (plastic coated or impregnated fibrous glass yarn) of standard color as approved; mesh 18 X 16.
		3. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above.
			5. Fasteners: Stainless steel, corrosion resistance.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.59 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further reinforcement attached to window frames; .080 x 1-3/8x 12 in (2.03 x 35 x 305 mm) stainless steel straps and appropriate stainless steel fasteners.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.
			1. Weather Stripping: Insure a weathertight seal meeting the infiltration tests specified herein. Replaceable factory applied weather-stripping of manufacturer's stock type.
				1. Between Sill and Sash: EPDM covered open cell foam.
				2. Sliding surfaces: Silicone treated pile, with a mylar center fin bonded to a plastic-backing strip.
			2. Screens: One for each operable window unit. Painted windows to have full screens only. Secure insect tight perimeter fit. Easily removable from inside building. Interchangeable with same size similar type windows. No exposed fasteners and latches. Guides, stops, and hardware to be manufacturer's standard.
			3. Screen Frames: Extruded aluminum sections not less than 7/16 x 1-1/4 x 0.050 in (11 x 32 x 1.3 mm) thick with removable vinyl splines. Exposed Surface Finish: Comply with AAMA 603.8. Total dry thickness not less than 0.8 mil (0.025 mm). Same color as window units.
			4. Screening: Weave parallel to frame stretched to present a smooth appearance. Conceal edges of screening in the spline channel.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required

* 1. FIXED CASEMENT VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.

* + 1. Basis of Design: Fixed Casement Windows, Model 8361, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 48 x 48 in (1219 x 1219 mm).

Window Type: F.

Design Pressure Rating (DP): R75.

Structural Test Pressure: 112.5 psf (5.39 kPa); 150 percent of DP.

Water Infiltration: 11.25 psf (0.54 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (0.05 liters per sec per sq m).

* + - * 1. Size Tested: 72 x 63 in (1829 x 1600 mm).

Window Type: F

Design Pressure Rating (DP): C50.

Structural Test Pressure: 75.0 psf (3.59 kPa); 150 percent of DP.

Water Infiltration: 7.5 psf (0.36 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (0.05 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 in (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
		2. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, Royal Spectra-Coat as manufactured by Royal Bond Co., Ontario, Canada.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on exterior surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect from 24 standard colors.
			2. Color: \_\_\_\_\_\_.
		1. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above.
			5. Fasteners: Stainless steel, corrosion resistance.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.59 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further reinforcement attached to window frames; .080 x 1-3/8x 12 in (2.03 x 35 x 305 mm) stainless steel straps and appropriate stainless steel fasteners.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required

* 1. GEOMETRIC VINYL PICTURE WINDOWS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.
Delete Basis of Design paragraph not required.

* + 1. Basis of Design: Geometric Picture Windows, Model 8371, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 60 x 60 in (1524 x 1524 mm).

Window Type: F.

Design Pressure Rating (DP): C50.

Structural Test Pressure: 75.0 psf (3.59 kPa); 150 percent of DP.

Water Infiltration: 12.0 psf (0.57 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (0.05 liters per sec per sq m).

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.

* + 1. Basis of Design: SDG Picture Windows, Model 8396, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 72 x 80 in (1829 x 2032 mm).

Window Type: F.

Design Pressure Rating (DP): HC45.

Structural Test Pressure: 67.5 psf (3.23 kPa); 150 percent of DP.

Water Infiltration: 12.0 psf (0.57 kPa); 15 percent of DP rating.

Air Infiltration: 0.01 cfm per sq ft (0.05 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth
			3. Frames and Sash: Multi-chambered PVC extrusion with .070 in (1.8 mm) external wall thickness.
			4. Frame and Sash Joints: Fusion welded to full strength of members.
		2. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
			5. Non-standard glass options will have a thermally improved box-type spacer with dual seal system.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + 1. High Performance Finish: Factory-applied, Royal Spectra-Coat as manufactured by Royal Bond Co., Ontario, Canada.
			1. Standards Compliance: AAMA 615.
			2. Finish: Satin, on exterior surfaces as determined by the factory.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: As selected by the Architect from 24 standard colors.
			2. Color: \_\_\_\_\_\_.
		1. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Sash Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Drips and Weep Holes: As required.
			4. Glazing Thickness: Design glazed windows and rabbets suitable for glass thickness specified above.
			5. Fasteners: Stainless steel, corrosion resistance.
				1. Flathead, cross-recessed type, exposed head screws with standard threads on windows, trim, and accessories. Finish flush with adjoining surfaces.
				2. Self-tapping sheet metal screws are not acceptable for material more than 1/16 in (1.59 mm) thick. All sheet metal screw fasteners shall penetrate into a screw boss consisting of at least three layers of PVC profile for secure fastening and reduce pull out.
			6. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Mulls: Reinforced with extruded aluminum I-beam reinforcement of 6005-T5 alloy and assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns. Further reinforcement attached to window frames; .080 x 1-3/8x 12 in (2.03 x 35 x 305mm) stainless steel straps and appropriate stainless steel fasteners.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.
			1. Sill Nose: Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-3/4 in (44 mm) nailing fin and 1 x 3/4 in (25 x 19 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER\*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required

* 1. SLIDING GLASS VINYL PATIO DOORS

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.
Delete Basis of Design paragraph not required.

* + 1. Basis of Design: Sliding Glass Doors, Model 8394, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 72 x 82 in (1829 x 2093 mm).

Type: SGD.

Design Pressure Rating (DP): R40.

Structural Test Pressure: 67.5 psf (3.23 kPa); 150 percent of DP.

Water Infiltration: 6.0 psf (0.29 kPa); 15 percent of DP rating.

Air Infiltration: 0.10 cfm per sq ft (0.51 liters per sec per sq m).

* + - * 1. Size Tested: 96 x 96 in (2438 x 2438 mm).

Type: SDG.

Design Pressure Rating (DP): R35.

Structural Test Pressure: 52.5 psf (2.51 kPa); 150 percent of DP.

Water Infiltration: 5.25 psf (0.25 kPa); 15 percent of DP rating.

Air Infiltration: 0.10 cfm per sq ft (0.51 liters per sec per sq m).

* + - * 1. Size Tested: 108 x 80 in (2743 x 2032 mm).

Type: SDG.

Design Pressure Rating (DP): R40.

Structural Test Pressure: 60.0 psf (2.87 kPa); 150 percent of DP.

Water Infiltration: 6.0 psf (0.29 kPa); 15 percent of DP rating.

Air Infiltration: 0.10 cfm per sq ft (0.51 liters per sec per sq m)

* + - * 1. Size Tested: 141 x 80 in (3581 x 2032 mm).

Type: F.

Design Pressure Rating (DP): R35.

Structural Test Pressure: 52.5 psf (2.51 kPa); 150 percent of DP.

Water Infiltration: 6.0 psf (0.29 kPa); 15 percent of DP rating.

Air Infiltration: 0.10 cfm per sq ft (0.51 liters per sec per sq m).

\*\* NOTE TO SPECIFIER \*\* Glazing options to suit specific thermal, visual, or acoustic requirements are available. Contact a manufacturer representative for more details.

* + 1. Basis of Design: HP Sliding Glass Doors, Model 8394 HP, as manufactured by Paradigm Window Solutions.
			1. Standard Compliance: Test data subject to change without notice.
				1. Thermal Performance: NFRC 100.
				2. Air Infiltration Test: AAMA 101/I.S.2, ASTM E283, and NFRC 400.
				3. Water Infiltration Test: AAMA 101 I.S.2, and ASTM E547.
				4. Uniform Structural Load Test: AAMA 101 I.S.2, and ASTM E330.
				5. Condensation Resistance Factor (CRF): AAMA 1503.
			2. Performance Test Results:
				1. Size Tested: 72 x 80 in (1829 x 2032 mm).

Type: SGD.

Design Pressure Rating (DP): R50.

Structural Test Pressure: 75.0 psf (3.59 kPa); 150 percent of DP.

Water Infiltration: 7.5 psf (0.36 kPa); 15 percent of DP rating.

Air Infiltration: 0.03 cfm per sq ft (0.15 liters per sec per sq m).

* + 1. Extruded PVC Components:
			1. Standard Compliance: AAMA 303.
			2. Commercial quality virgin PVC (unplasticised polyvinyl chloride). Sections and fabricated assemblies to be straight, true and smooth.
			3. Frames: Multi-chambered PVC extrusion with .090 external wall thickness.
			4. Frame Joints: Fusion welded to full strength of members.
			5. Meeting rails between stationary and operating panels to have integral interlocks.
		2. Locking Device: 3 point stainless steel lock system, engaged by rotating lock handle located on interior of handle hardware.
			1. Handle: Solid brass.
				1. Finish: White powder coated finish,
				2. Finish: Bright brass.
				3. Finish: Antique brass.
				4. Finish: Brushed chrome.
				5. Finish: Polished chrome.

\*\* NOTE TO SPECIFIER \*\* Standard on four panel doors. Delete if not required.

* + - 1. Flush bolt: For securing the passive sliding panel.
		1. Glass and Glazing: Integral glazing type system.
			1. Standards Compliance: ASTM E774.
			2. Factory glazed 3/4 in (19 mm) insulating glass, with Truseal Duralite seal spacer, manufactured by TruSeal Industries Inc., Cleveland, OH.
			3. Architectural back bedded glazing tape.
			4. Watertight seal between glass and sash frame.
		2. Caulking and Sealing: As specified or recommended by door manufacturer.
		3. Weather Stripping for Sliding Panels: Double or triple weather-strip using silicone treated pile on a rigid backing material fitting into a groove provided in the extruded door parts. Additional rubber gasket type compression weather strip where sliding panels meet the lock jambs.
		4. Screening: Fed. Spec. L-S-125, Type II, Class 2 (plastic coated or impregnated fibrous glass yarn) of standard color as approved; mesh 18 X 16. Screen frames roll on two rollers at the bottom and two rollers at the top, all with individual adjustment settings. Added weather stripping where screen contacts the lock jamb preventing screen frame from rattling.
		5. Fabrication:
			1. Frame: Extruded multi-chambered double wall PVC without need for reinforcement, fusion welded at corners.
			2. Panel Members: Extruded multi-chambered double wall PVC at glazing locations. Miter and fusion weld horizontal and vertical sash members.
			3. Sill: Thermal break comprised of a PVC, .090 in (2.3 mm) thick perimeter wall and stainless steel cap over the stainless steel roller channel where the door panel rollers glide and an exterior sill nosing made of anodized aluminum.
			4. Rollers for Door Panels: Zinc dichromate plated tandem rollers.
			5. Adjustments: Two adjustments to change height of door panels above the rollers ensuring squareness with the frame. Four adjustments, two top and two bottom to adjust the screen fit.
			6. Drips and Weep Holes: As required.
			7. Glazing Thickness: Design glazed Sliding Patio Doors with rabbets suitable for glass thickness specified above.
			8. Glazing Provisions: Sash design for outside double-glazing and securing glass. Glazing channels to be of adequate size and depth to receive and properly support glass and glazing accessories.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Factory Mulls: Assembled utilizing interior and exterior "U" channels with proprietary sealant application patterns.
			2. Accessories: Provide windows complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other appurtenances necessary for complete installation and proper operation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Type 908 Brick Mould Casing: 2-1/4 x 1-5/8 in (57 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Five Inch Brick Mould Casing: 5 x 1-5/8 in (127 x 41 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Flat Casing: 3-1/2 x 1-3/8 in (89 x 35 mm).
				1. Offset casing hides beveled surface of screen track providing stepped appearance relative to window frame. Welded joints aesthetically cleaned of weld flash material.
				2. Co-extruded, multi-chambered, flex-fin' weather strip sealing between casing and window. 1-7/8 in (47 mm) nailing fin and 1 x 1 in (25 x 25 mm) J channel, 0.075 in (1.9 mm) minimum exterior wall thickness.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required.

* + - * 1. Exterior color finish may be applied to match or complement the exterior color of the window.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Jamb Extension:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Clear pine.
				2. Primed finger-jointed pine.
				3. Premium oak.
				4. Azek cellular pvc (white).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Grill Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Grill Patterns: Refer to Drawings.
				2. Rectangular internal grids.
				3. Contour internal grids.
				4. Simulated divided lites.
			1. Weather Stripping: Insure a weathertight seal meeting the infiltration tests specified herein. Replaceable factory applied weather-stripping of manufacturer's stock type.
				1. Sliding Surfaces: Silicone treated pile, bonded to a plastic-backing strip.
				2. Sliding Panel and Lock Jamb Contact: Rubber compression type gasket.
				3. Sliding Panel Meets Stationary Panel. Mechanical and weather-stripped interlock.
			2. Screens: One for each operable unit. Secure insect tight perimeter fit. Rewireable, and easily removable and interchangeable with same size doors. No exposed fasteners. Supply guides, stops, clips, and hardware as necessary. Aluminum screen wire shall be provided when stipulated.
			3. Screen Frames: Extruded aluminum sections not less than .2 x 0.5 in (5 x 13 mm) thick with removable vinyl splines. Surface finish to be same quality and color finish as the door unit. Hardware, attachment devices, and accessories shall be manufacturer's standard and of same quality, material and finish as hardware of door unit.
			4. Screening: Weave parallel to frame stretched to present a smooth appearance. Conceal edges of screening in the spline channel.
			5. Aluminum Extrusion Exposed Surface Finish: Comply with AAMA 603.8. Total dry thickness not less than 0.8 mil (0.025 mm). Same color as window units.
1. EXECUTION
	1. EXAMINATION
		1. Verification of Conditions:
			1. Confirm openings are in correct location, and of correct size, in accordance with approved shop drawings and manufacturer's installation instructions.
			2. Confirm work by others is installed per the project requirements. Do not cover work by others prior to inspection or acceptance.
			3. Do not begin installation until substrates have been properly prepared.
			4. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
		2. Do not proceed until unacceptable conditions are corrected.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction. Test for leaks as recommended by manufacturer.
			1. Replacement Windows: Provide sill angle flashed in sealant at windowsills.
		2. Coordinate with installation of flashing, specified in Section 07 62 00 - Sheet Metal Flashing and Trim.
		3. Coordinate with installation of joint sealers, specified in Section 07 90 00 - Joint Protection.
	4. ADJUSTING
		1. Adjust operating hardware for correct operation in accordance with manufacturer's installation instructions.
	5. CLEANING
		1. Clean interior and exterior surfaces free of labels, mortar, plaster, paint, joint sealers, and other foreign matter.
		2. Remove debris from the project site and dispose of legally.
	6. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

\*\* NOTE TO SPECIFIER \*\* Delete if window and door schedule is on the Drawings.

* 1. WINDOW AND PATIO DOOR SCHEDULE
		1. Window Type [\_\_\_]:
			1. Size:
			2. Performance Class and Grade:
			3. Model:
			4. Frame:
			5. Glass Package:
			6. Finish:
		2. Patio Door Type [\_\_\_]:
			1. Size:
			2. Performance Class and Grade:
			3. Model:
			4. Frame:
			5. Glass Package:
			6. Finish:

END OF SECTION