

SECTION 08 53 13

IMPACT RESISTANT VINYL WINDOWS

\*\* NOTE TO SPECIFIER \*\* PGT Windows and Doors; impact resistant doors and windows.
This section is based on the products of PGT Windows and Doors, which is located at:

1070 Technology Drive
Nokomis, FL
Toll Free Tel: 800.282.6019
Tel: 941.480.1600

Web: www.pgtindustries.com

1. GENERAL
	1. SECTION INCLUDES

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

* + 1. Impact resistant vinyl windows of the following types:
			1. Single Hung.
			2. Double Hung.
			3. Horizontal Rolling.
			4. Casement.
			5. Project-out/Awning.
			6. Casement Fixed.
			7. Fixed.
			8. Architectural.
	1. RELATED SECTIONS

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

* + 1. Section 06 10 00 - Rough Carpentry.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM F 588 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Shop Drawings: Provide elevations sections and details of construction, installation and rough opening framing requirements.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches square representing actual product, color, and patterns.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.
		2. Installer Qualifications: Minimum 2 year experience installing similar products.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship is approved by Architect.
			3. Refinish mock-up area as required to produce acceptable work.
	1. PRE-INSTALLATION MEETINGS
		1. Convene minimum two weeks prior to starting work of this section.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
		2. Handling: Handle materials to avoid damage.
	3. PROJECT CONDITIONS
		1. 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 recommended limits.
	4. SEQUENCING
		1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: PGT Windows and Doors , which is located at: 1070 Technology Drive, Nokomis FL, 34275; Toll Free Tel: 800.282.6019; Tel: 941.480.1600; Web: www.pgtindustries.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.
	1. IMPACT-RESISTANT VINYL WINDOWS
		1. Product: WinGuard Impact-Resistant Vinyl Windows by PGT.
			1. Size: Refer to drawing schedule.

\*\* NOTE TO SPECIFIER \*\* Delete frame configuration not required.

* + - 1. Frame: Flange.
			2. Frame: Fin.
			3. Frame: Equal leg.

\*\* NOTE TO SPECIFIER \*\* Delete frame finish not required.

* + - 1. Finish: White.
			2. Finish: Tan.
			3. Finish: Bronze.
			4. Finish: Two Tone.

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

* + - 1. Glass: Clear.
			2. Glass: Bronze
			3. Glass: Gray.
			4. Glass: Bronze.
			5. Glass: Turtle Glass.
			6. Glass: Obscure.
			7. Glass: Lo-E SB 60.
			8. Glass: Lo-E SB 70XL.
	1. SINGLE HUNG WINDOWS
		1. Series: WinGuard Series 5400-5500 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 9.75 PSF.
				2. Small and Large Missile (52 1/8 inches (1324mm) x 84 inches (2134mm) +50 PSF/ -50 PSF.
				3. Small and Large Missile (52 1/8 inches (1324mm) x 84 inches (2134mm) +65 PSF/ -70 PSF.
				4. Forced Entry Test (ASTM F 588): Passed.
			2. Construction:
				1. 3-1/2 inches (83 mm) frame depth.
				2. 5/8 inch (13 mm) flange frame.
				3. Sloped sill.
				4. Capture-lock sash system.
				5. Lift Assist Constant Force Balance System.
				6. Snap-on glazing beads.
				7. Structural glazing.
				8. No installation fasteners required in sill.
				9. Aluminum reinforced sash.
				10. Extruded screen frame with fiberglass mesh.
				11. Extruded aluminum interlock

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement:
				1. 7/8 inch (22mm) Insulated Clear
				2. 7/8 inch (22mm) Insulated Laminated Clear SB 60
				3. 7/8 inch (22mm) Insulated Laminated Clear SB 70 XL
			2. Hardware:
				1. Recessed tilt latches.
				2. Sweep locks.
				3. Auto locks
				4. WOCD
			3. Optional: Available In Oriel/ Proview Configurations.
	1. DOUBLE HUNG WINDOWS
		1. Series: WinGuard Series 5460-5560 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 10.5 PSF.
				2. Small and Large Missile (52 1/8 inches (1324mm) x 84 inches (2134mm) +50/-50 PSF.
				3. Small and Large Missile (52 1/8 inches (1324mm) x 84 inches (2134mm) +65/ -70 PSF.
				4. Forced Entry Test (ASTM F 588): Passed.
			2. Construction:
				1. 3-1/2 inches (89 mm) frame depth.
				2. 5/8 inch (16 mm) flange frame.
				3. Sloped sill.
				4. Capture-lock sash system.
				5. Lift Assist Constant Force Balance System.
				6. Snap-on glazing beads.
				7. Structural glazing.
				8. No installation fasteners required in sill.
				9. Aluminum reinforced sash.
				10. Extruded screen frame with fiberglass mesh.
				11. Extruded aluminum interlock

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement:
				1. 7/8 inch (22mm) Insulated Clear
				2. 7/8 inch(22mm) Insulated Laminated Clear SB 60
				3. 7/8 inch (22mm) Insulated Laminated Clear SB 70 XL
			2. Hardware:
				1. Sweep locks.
				2. Auto locks
				3. WOCD

 Optional: Available In Oriel/ Proview Configurations

* 1. HORIZONTAL ROLLING WINDOWS
		1. Series: WinGuard Series 5410-5510 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 9.75 PSF.
				2. Small and Large Missile (2 panel 75 inches (1905 mm) x 72 inches (1905 mm) +50 PSF/ -50 PSF.
				3. Small and Large Missile (2 panel 75 inches (1905 mm) x 63 inches (1600 mm) +65 PSF/ -70 PSF.
				4. Small and Large Missile (3 panel 120 inches (3048mm) x 63 inches (1600mm) +50 PSF/ -50 PSF.
				5. Small and Large Missile (3 panel 120 inches (3048 mm)x 63 inches (1600mm)+65 PSF/ -70 PSF.
				6. Forced Entry Test (ASTM F 588): Passed.

\*\* NOTE TO SPECIFIER \*\* Delete panel configuration not required.

* + - 1. Panel Configuration: Two panel OX.
			2. Panel Configuration: Two panel XO.
			3. Panel Configuration: Three panel XOX.

\*\* NOTE TO SPECIFIER \*\* Delete lite configuration not required.

* + - 1. Lite Configuration: Equal.
			2. Lite Configuration: 1/4 - 1/2 - 1/4, 1/3 - 1/3 -1/3
			3. Construction:
				1. 3 1/2 inch (89mm) frame depth.
				2. 5/8” inch (16mm) flange frame.
				3. Capture-lock sash system.
				4. Snap-on glazing beads.
				5. Structural glazing.
				6. Aluminum reinforced sash.
				7. Extruded screen frame with fiberglass mesh.
				8. Concealed installation fasteners.
				9. Extruded aluminum interlock

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement: U Factor /SHGC / VT:
				1. 7/8 inch (22mm) Insulated Clear
				2. 7/8 inch (22mm)Insulated Laminated Clear SB 60
				3. 7/8 inch (22mm) Insulated Laminated Clear SB 70 XL
			2. Hardware:
				1. Recessed tilt latches.
				2. Sweep locks.
				3. Auto locks
				4. WOCD
				5. Tandem Stainless Steel bearing rollers
	1. CASEMENT WINDOWS
		1. Series: WinGuard Series 5440-5540 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 9.75 PSF.
				2. Small and Large Missile (36 inches (914mm) x 84 inches (2134mm), +65 PSF/ -70 PSF..
				3. Forced Entry Test (ASTM F 588): Passed.
			2. Construction:
				1. 3 1/2 inch (89mm) frame depth.
				2. 5/8 inch (16mm) flange frame.
				3. Triple weatherstripping.
				4. Snap-on glazing beads.
				5. Strong structural glazing.
				6. Aluminum reinforced frame and sash.
				7. Extruded screen frame with fiberglass mesh.

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement:
				1. 3/4 inch (19mm) Insulated Clear
				2. 7/8 inch (22mm) Insulated Laminated Clear SB 60
				3. 7/8 inch (22mm) Insulated Laminated Clear SB 70 XL
			2. Hardware:
				1. Stainless steel arm operator with nesting crank handle.
				2. Stainless steel operator track.
				3. Hinges with wash ability features.
				4. Pair of stainless steel concealed hinges.
				5. Heavy duty bearing supported hinges.
				6. Multipoint lock system with single locking handle.
				7. Stainless steel keepers.
				8. Snubber blocks.
				9. Small operator on units less than 24 inches (607mm) large operator on units 24 inches (607mm) or more.

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

* + - * 1. Limit opening device WOCD
	1. PROJECT-OUT/AWNING WINDOWS
		1. Series: WinGuard Series 5440-5540 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 10.5 PSF.
				2. Small and Large Missile (52 1/8 inches (1324mm) x 42 inches (1067mm) +65 PSF/ -70 PSF.
				3. Small and Large Missile (30 inches (762mm) x 84 inches (2134mm)+65 PSF/ -70 PSF.
				4. Forced Entry Test (ASTM F 588): Passed.
			2. Construction:
				1. 3-1/2 inch (89mm) frame depth.
				2. 5/8 inch (16mm) flange frame.
				3. Triple weatherstripping.
				4. Snap-on glazing beads.
				5. Strong structural glazing.
				6. Aluminum reinforced frame and sash.
				7. Extruded screen frame with fiberglass mesh.

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement: U Factor /SHGC / VT:
				1. 3/4 inch (19mm) Insulated Clear
				2. 7/8 inch (22mm) Insulated Laminated Clear SB 60
				3. 7/8 inch (22mm) Insulated Laminated Clear SB 70 XL
			2. Hardware:
				1. Stainless steel arm operator with nesting crank handle.
				2. Stainless steel operator track.
				3. Hinges with washability features.
				4. Pair of stainless steel concealed hinges.
				5. Multipoint lock system with single locking handle.
				6. Stainless steel keepers.
				7. Snubber blocks.
				8. Small operator on units less than 22 inches (559mm), large operator on units 22 inches (559mm) or more.
				9. Around-The-Corner Multipoint locking mechanism
	1. CASEMENT FIXED WINDOWS
		1. Series: WinGuard Series 5440-5540 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 12 PSF.
				2. Forced Entry Test (ASTM F 588): Passed.
			2. Construction:
				1. Snap-on glazing beads.
				2. 3-1/2 inch (89mm) frame depth.
				3. 5/8 inch (16mm) flange frame.
				4. Strong structural glazing.
				5. Concealed installation fasteners.

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement: U Factor /SHGC / VT:
				1. 7/8 inch (22mm) Insulated Clear
				2. 1 inch (25.4mm) Insulated Laminated Clear SB 60
				3. 1 inch (25.4mm) Insulated Laminated Clear SB 70 XL
	1. FIXED WINDOWS
		1. Series: WinGuard Series 5420-5520 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 12 PSF.
				2. Small and Large Missile (85 inches (2159mm) x 57 inches (1448mm) +70 PSF/ -70 PSF.
				3. Small and Large Missile (62 inches (1575mm) x 42 inches (1067mm): +50 PSF/ -50 PSF.
				4. Forced Entry Test (ASTM F 588): Passed.
			2. Construction:
				1. Snap-on glazing beads.
				2. 3-1/2 inch (89mm) frame depth.
				3. 5/8 inch (16mm) flange frame.
				4. Strong structural glazing.
				5. Concealed installation fasteners.

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement: U Factor /SHGC / VT:
				1. 7/8 inch (22mm) Insulated Clear
				2. 1 inch (25.4mm) Insulated Laminated Clear SB 60
				3. 1 inch (25.4mm) Insulated Laminated Clear SB 70 XL
	1. ARCHITECTURAL WINDOWS
		1. Series: WinGuard Series 5420-5520 by PGT.
			1. Performance:
				1. Maximum Water Resistance: 12 PSF.
				2. Small and Large Missile (85 inches (2159mm) x 57 inches (1448mm) +70 PSF/ -70 PSF.
				3. Small and Large Missile (62 inches (1575mm) x 42 inches (1067mm): +50 PSF/ -50 PSF.

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

* + - 1. Style: Full Circle
			2. Style: Half Circle
			3. Style: Quarter Circle
			4. Style: Arch
			5. Style: Half Arch
			6. Style: Eyebrow
			7. Style: Half Eyebrow
			8. Style: Fan
			9. Style: Half Fan
			10. Style: Octagon
			11. Style: Hexagon
			12. Style: Oval
			13. Style: Elliptical
			14. Style: Half Elliptical
			15. Style: Trapezoid
			16. Style: Peak Pentagon
			17. Style: 5-Sided Trapezoid
			18. Style: Left/Right Triangle
			19. Style: Equilateral Triangle
			20. Style: Isosceles Triangle
			21. Style: Gothic

 2. Construction:

* + - * 1. Snap-on glazing beads.
				2. 3-1/2 inch (89mm) frame depth.
				3. 5/8 inch (16mm) flange frame.
				4. Strong structural glazing.
				5. Concealed installation fasteners.

\*\* NOTE TO SPECIFIER \*\* Delete glass construction not required.

* + - 1. Energy Requirement:
				1. 7/8 inch (22mm) Insulated Clear
				2. 1 inch (25.4mm) Insulated Laminated Clear SB 60
				3. 1 inch (25.4mm) Insulated Laminated Clear SB 70 XL
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	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 proper operation and adjust until satisfactory results are achieved.
	4. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION