SECTION 08 32 16

SOUND CONTROL VINYL SLIDING GLASS DOORS

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\*\* NOTE TO SPECIFIER \*\* Prime Window Systems, LLC; acoustical windows and doors.
This section is based on the products of Prime Window Systems, LLC, which is located at:
12775 E. 38th Ave.
Denver, CO 80239
Toll Free Tel: 800-375-5570
Tel: 303-375-0570
Email: [request info (chris.solari@primewindowsys.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Prime+Window+Systems,+LLC&coid=45763&rep=&fax=&message=RE:%20Spec%20Question%20(08265sga):%20%20&mf=)
Web: [www.silent-guard.com](http://www.silent-guard.com)
 [[Click Here](http://www.arcat.com/arcatcos/cos45/arc45763.html) ] for additional information.
SilentGuard® acoustical windows and doors represent the most sophisticated technology available in sound control fenestration, and can be customized to meet a wide range of acoustical requirements. These technologically advanced products deliver cutting edge sound suppression, outstanding thermal efficiency and the aesthetic beauty and maintenance free qualities of premium vinyl windows.
We've designed our website to provide you with a full array of tools and all the data and details you'll need to deliver a high quality product to your clients on time and on budget. We also have a full array of BIM objects for your use and an informative, AIA approved continuing education module that will make you an expert in acoustic fenestration design in no time while helping you earn valuable HS&W credits.
SilentGuard® windows are the result of exhaustive design efforts and meticulous craftsmanship that combine to produce windows and doors of exceptional structural strength and superior thermal performance characteristics that enable these products to meet or exceed industry standards for forced entry resistance (including the stringent California codes), while providing valuable, year round energy savings. SilentGuard® acoustical windows and doors are the perfect solution for reducing noise penetration in buildings located near airports, city centers, highways or rail lines.

1. GENERAL
	1. SECTION INCLUDES
		1. Tubular extruded poly vinyl chloride (PVC) framed sound control rated sliding glass doors.
	2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Add sections relevant to this section.

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

\*\* NOTE TO SPECIFIER \*\* If vinyl sliding doors are used in conjunction with this section, manufacturer recommends insulated glazing units and unit components that meet the acoustical performance requirements of the project

* + 1. Section 08 53 13 - Vinyl Windows.
	1. REFERENCES

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

* + 1. American Architectural Manufacturers Association (AAMA):
			1. AAMA/WDMA/CSA 101/I.S.2/A440 - Standard/Specification for Windows, Doors and Unit Skylights.
			2. AAMA 303 - Voluntary Specification for rigid Polyvinyl Chloride (PVC) Exterior Profiles.
			3. AAMA 701 - Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.
			4. AAMA 2400 - Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction.
		2. Fenestration Manufacturers Association FMA):
			1. FMA/AAMA 100 - Standard Practice for the Installation of Windows with Flanges or Mounting Fins in Wood Frame Construction.
		3. American National Standards Institute (ANSI):
			1. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings.
		4. American Society for Testing and Materials (ASTM):
			1. ASTM C 1036 - Standard Specification for Flat Glass.
			2. ASTM C 1172 - Standard Specification for Laminated Architectural Flat Glass.
			3. ASTM D 4216 - Standard Specification for Rigid Poly Vinyl Chloride (PVC) and Related PVC and Chlorinated Poly Vinyl Chloride (CPVC) Building Products Compounds.
			4. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
			5. ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
			6. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
			7. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
			8. ASTM E 413 - Classification for Rating Sound Insulation.
			9. ASTM E 547 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
			10. ASTM E 774 - Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units.
			11. ASTM E 1300 - Standard Practice for Determining Load Resistance of Glass in Buildings.
			12. ASTM E 1332 - Standard Classification for Determination of Outdoor-Indoor Transmission Class.
			13. ASTM E 2112 - Standard Practice for Installation of Exterior Windows, Doors and Skylights.
			14. ASTM E 2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
			15. ASTM F 588 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
		5. National Fenestration Rating Council (NFRC):
			1. NFRC 100 - Procedure for Determining Fenestration Product U-Factors.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Provide manufacturer's standard details and catalog data demonstrating compliance with referenced standards.
		3. Shop Drawings: Include window schedule detailing sizes, glazing types, muntin types and designs, window elevations, sections and details for each project condition, and multiple window assembly details.
		4. Selection Samples:
			1. For each finish product specified, two complete sets of color samples: Minimum 1 inch by 4 inch (25 mm by 100 mm) samples of PVC with integral color representing manufacturer's full range of available colors and patterns.
			2. Glass, showing available tint colors.
		5. Verification Samples:
			1. For each finish specified, two color samples: Minimum 1 inch by 4 inch (25 mm by 100 mm) samples of PVC with integral color, representing actual product, color, and patterns.
			2. Glass showing specified tint colors.
		6. Quality Assurance/Control Submittals:
			1. Qualifications: Proof of manufacturer's qualifications.
			2. U-Factor, solar heat gain coefficient and structural rating charts required for AAMA and NFRC labeling requirements.
			3. Manufacturers' Installation Recommendations.
		7. Closeout Submittals: Reference Section 01 78 23.19 - Preventative Maintenance Instructions
			1. Temporary window labels marked to identify windows that labels were applied to.
			2. Maintenance instructions.
			3. Special Warranties.
	2. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.
			1. Minimum five years' experience in producing vinyl windows of the type(s) specified.
			2. Participant in good standing in nationally recognized certification and labeling program.
			3. Member National Fenestration Ratings Council (NFRC).
		2. Installer Qualifications: Minimum 2 year experience installing similar products.
		3. Overall Standards: Comply with AAMA/WDMA/CSA 101/I.S.2/A440, except as otherwise noted herein.

\*\* NOTE TO SPECIFIER \*\* Insert local regulatory requirements below.

* + 1. Regulatory Requirements:
		2. Certifications for Insulated Glass Doors:
			1. AAMA: Doors shall be Gold Label certified with label attached to frame per AAMA requirements.
			2. NFRC: Doors shall be NFRC certified with temporary U-factor label applied to glass and an NFRC tab added to permanent label.

\*\* 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.
	5. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Select "residential' warranty below for owner occupied single family residential and owner occupied condominium projects. Select "commercial" warranty for non-owner occupied condominiums, commercial, and apartment projects.

* + 1. Manufacturer's Residential Special Warranty:
			1. Warranty unit components against defects in materials and workmanship to original owner for life (refer to manufacturer's written warranty for details).
			2. Warranty insulated glass units against failure to original owner for 25 years (refer to manufacturer's written warranty for details).
			3. Warranty to include the cost of parts for the life of the warranty and the cost of labor for one year from the date of purchase (refer to manufacturer's written warranty for details).
		2. Manufacturer's Commercial Special Warranty:
			1. Warranty unit components against defects in materials and workmanship for ten years (refer to manufacturer's written warranty for details).
			2. Warranty insulated glass units against failure for ten years (refer to manufacturer's written warranty for details).
			3. Warranty to include the cost of parts for the life of the warranty and excludes labor (refer to manufacturer's written warranty for details).
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Prime Window Systems, LLC, which is located at: 12775 E. 38th Ave.; Denver, CO 80239; Toll Free Tel: 800-375-5570 ; Tel: 303-375-0570; Email: [request info (chris.solari@primewindowsys.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Prime+Window+Systems,+LLC&coid=45763&rep=&fax=&message=RE:%20Spec%20Question%20(08265sga):%20%20&mf=); Web: [www.silent-guard.com](http://www.silent-guard.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. MATERIALS
		1. Vinyl: Integral color PVC compound containing impact-resistant solid plasticizer, titanium dioxide UV inhibitor, and surface and color stabilizers.
			1. Comply with AAMA 303, ASTM D 4216 and AAMA/WDMA/CSA 101/I.S. 2/A440.

\*\* NOTE TO SPECIFIER \*\* Verify that door flashing material and installation sealant is specified in appropriate sections.

* 1. GENERAL PERFORMANCE REQUIREMENTS
		1. Thermal Performance: Comply with NFRC 100.
		2. Air Leakage Resistance, Water Penetration Resistance, Structural Loading: Comply with AAMA/WDMA/CSA 101/I.S.2/A440.
		3. Forced Entry Resistance: Comply with ASTM F 842.
		4. Acoustical Performance: Comply with ASTM E 90, ASTM E 413 and ASTM E 1332.
	2. SLIDING DOOR TYPES

\*\* NOTE TO SPECIFIER \*\* Select following door types and related nail fin/mounting style based on project requirements. Delete door types not used

* + 1. Standard Sliding Door (OX or XO configuration) - SilentGuard Series 411:
			1. Frame: Minimum 4.563 inch (116 mm) deep, multi-chambered rigid vinyl (PVC) profile and containing an integral, 1.250 inch wide mounting flange located 1.375 inches from exterior face of frame.
			2. Sash Frame: Minimum 1.50 inch (38 mm) deep, multi-chambered rigid vinyl (PVC) profile.
			3. Uniform Structural Load Pressure per ASTM E 330: 75.00 psf minimum.
			4. Water Penetration Resistance per ASTM E 547: 7.52 psf minimum.
			5. Air Leakage Resistance per ASTM E283 (1.57psf): 0.07 cfm/ft2 maximum.

\*\* NOTE TO SPECIFIER \*\* Delete design pressure not required.

* + - 1. Design Pressure: +/-40 up to 96 inches by 96 inches (244 cm by 244 cm).
			2. Design Pressure: +/-50 up to 96 inches by 96 inches (244 cm by 244 cm).

\*\* NOTE TO SPECIFIER \*\* Delete performance grade not required.

* + - 1. Performance Grade: Light Commercial, LC-PG40.
			2. Performance Grade: Light Commercial, LC-PG50.
			3. Acoustical Performance per ASTM E90:
				1. STC: \_\_\_\_\_\_
				2. EWR: \_\_\_\_\_\_
				3. OITC: \_\_\_\_\_\_
			4. Forced Entry Resistance per CAWM 301-90 and ASTM F 842: Grade 10. No entry.
			5. Hardware:

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

* + - * 1. Lock: Keyed exterior cylinder lock, Schlage compatible keyway.
				2. Handle and Latching: Inside and outside pull with lever operated jamb lock and corresponding keeper.

Pull Finish and Jamb Lock: Manufacturer's standard finish and jamb lock based on size and model selected.

* + - * 1. Rollers: Two sets of dual stainless steel, ball bearing rollers on raised stainless steel monorail track.
			1. Weatherstripping:
				1. Fin seal high density polypropylene pile with Mylar fin, minimum 0.270 inch x 0.330 inch (6.9 mm x 8.4 mm), kerf-applied to the interior and exterior face around full perimeter of sash frame and along full length of fixed interlock.
				2. Self-adhesive, wool pile pad measuring 2.00 inches x 1.00 inch x 0.250 inch (51 mm x 25.4 mm x 6.4 mm) at top and bottom panel interlock rail.
			2. Finish:

\*\* NOTE TO SPECIFIER \*\* White, almond and adobe finishes are integral. All other colors are non-integral, applied paint coating. When adobe exterior is paired with white or almond interior, adobe shall be non-integral, applied painted coating

* + - * 1. Frame and Sash Interior Color: White.
				2. Frame and Sash Interior Color: Almond.
				3. Frame and Sash Interior Color: Adobe.
				4. Frame and Sash Exterior Color: White.
				5. Frame and Sash Exterior Color: Almond.
				6. Frame and Sash Exterior Color: Adobe.
				7. Frame and Sash Exterior Color: Green.
				8. Frame and Sash Exterior Color: Black.
				9. Frame and Sash Exterior Color: Bronze.
				10. Frame and Sash Exterior Color: Brown.
				11. Frame and Sash Exterior Color: Cranberry Red.
				12. Frame and Sash Exterior Color: Silver

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

* + - * 1. Color match screen frame to frame and sash color.
	1. ACCESSORlES

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

* + 1. Block frame configuration: Nail fin removed for replacement applications.

\*\* NOTE TO SPECIFIER \*\* If multiple acoustical ratings are required for the project, be certain that the acoustical rating/glazing type for each window is clearly noted on drawings and/or window schedule.

* 1. GLASS AND GLAZING

\*\* NOTE TO SPECIFIER \*\* 411 series only glass construction. Delete if not required.

* + 1. Acoustical Sealed Insulating Glass:
			1. Glass and glazing shall comply with ANSI Z97.1, ASTM C 1036, E 774 or E 2190 (Class A), C1172 and E 1300 as required and shall consist of:

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

* + - * 1. STC 28, OITC 23 acoustical performance level glazing consisting of a 0.8125 inch (20.6 mm) overall thickness insulating glass unit comprised of:

1 piece of 0.125 inch (3.2 mm) flat glass and 1 piece of 0.125 inch (3.2 mm) flat glass separated by a 0.5625 inch (14.3 mm) air space.

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

Outer lite annealed.

Outer lite tempered.

Inner lite annealed.

Inner lite tempered.

* + - * 1. STC 32, OITC 26 acoustical performance level glazing consisting of a 1 inch (25.4 mm) overall thickness insulating glass unit comprised of:

1 piece of 0.125 inch (3.2 mm) flat glass and 1 piece of 0.1875 inch (4.7 mm) flat glass separated by a 0.6875 inch (17.5 mm) air space.

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

Outer lite annealed.

Outer lite tempered.

Inner lite annealed.

Inner lite tempered.

* + - * 1. STC 33, OITC 27 acoustical performance level glazing consisting of a 1 inch (25.4 mm) overall thickness insulating glass unit comprised of:

1 piece of 0.1875 inch (4.7 mm) flat glass and 1 piece of 0.250 inch (6 mm) flat glass separated by a 0.5625 inch (14.3 mm) air space.]

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

Outer lite annealed.

Outer lite tempered.

Inner lite annealed.

Inner lite tempered.

* + - * 1. STC 34, OITC 28 acoustical performance level glazing consisting of a 1 inch (25.4 mm) overall thickness insulating glass unit comprised of:

1 piece of 0.1875 inch (4.7 mm) flat glass and 1 piece of 0.250 inch (6.4 mm) laminated flat glass panel separated by a 0.5625 inch (14.3 mm) air space.]

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

Outer lite annealed.

Outer lite tempered.

* + - * 1. STC 35, OITC 29 acoustical performance level glazing consisting of a 1 inch (25.4 mm) overall thickness insulating glass unit comprised of:

2 panels of 0.25 inch (6.4 mm) laminated flat glass separated by a 0.500 inch (12.7 mm) air space.]

\*\* NOTE TO SPECIFIER \*\* Delete glazing type not required.

* + - 1. Glazing Type: Clear/Clear Laminated.
			2. Glazing Type: Low-E/Clear Laminated.
			3. Glazing Type: Low-E/Clear Laminated, argon gas filled.
			4. Glass shall be placed on blocks and secured to frame using a double sided adhesive, closed cell foam glazing tape.
			5. Spacer Bar: Warm edge, reinforced spacer.
	1. DIVIDED LITE GRIDS

\*\* NOTE TO SPECIFIER \*\* Verify that desired grid patterns, if any, are shown on the drawings. Certain grid patterns may not be available with one or the other bar types in the following paragraph - consult atrium for unusual design applications. Delete grid profile not required.

* + 1. Divided Lite Grids: 0.625 inch (16 mm) wide flat metal bars color matched to frame and sash.
		2. Divided Lite Grids: 1 inch (25.4 mm) wide sculptured metal bars color matched to frame and sash.
		3. Grids shall be contained within the airspace of insulated glass units.

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

* 1. INSECT SCREENS
		1. Sliding Screen Door:
			1. Frame: Roll-formed aluminum, 1 inch by 1.75 inches (25.4 mm x 44.5 mm).
			2. Hardware:
				1. Lock: Sliding type.
				2. Rollers: 2 adjustable nylon rollers at top, and 2 adjustable nylon rollers at bottom.
				3. Screen Cloth: Charcoal colored fiberglass mesh secured in frame by vinyl spline.
	2. FABRICATI0N
		1. Fabricate frames and sashes with mitered and fusion welded corners and joints. Trim and finish corners and welds to match adjacent surfaces.
		2. Provide concealed metal reinforcement in sash frames for attaching lock mechanism.
		3. Factory exterior glaze with snap-on PVC glazing bead stops matching sash and frame finish, except where field glazing is required due to large window unit dimensions. Units shall be reglazable without dismantling sash framing.
	3. SOURCE QUALITY CONTROL
		1. Inspect windows in accordance with manufacturer's Quality Control Program as required by the applicable certification program.
1. EXECUTION
	1. EXAMINATION
		1. Examine openings in which doors will be installed.
			1. Verify that sill is flat and level and jambs are plumb.
			2. Verify that fasteners in framed walls are fully driven and will not interfere with door installation.
		2. Coordinate with responsible entity to correct unsatisfactory conditions.
		3. Commencement of work by installer is acceptance of substrate conditions.
	2. INSTALLATION

\*\* NOTE TO SPECIFIER \*\* Delete glazing type not required. Comply with fastener size, length, placement schedule and depth of framing penetration as labeled on each window. Masonry walls and unusual conditions may require additional information in this article.

* + 1. Assemble and install doors in framed walls in accordance with manufacturer's recommendations, AAMA 2400, ASTM E 2112 or AAMA/FMA 100 and applicable building codes.
		2. Do not remove temporary labels.

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

* + 1. Install screen door on operable panel.
	1. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.
	2. ADJUSTING
		1. Adjust operating sash and hardware for smooth operation and tight fit with weather-stripping.

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

* + 1. Adjust screen door and screen door hardware for smooth operation.
	1. CLEANING
		1. Reference Section 01 74 16 - Site Maintenance.
		2. Remove temporary labels and retain for Closeout Submittals.
		3. Clean soiled surfaces and glass using a mild detergent and warm water solution with soft, clean cloth.

END OF SECTION