

SECTION 08 56 59

BULLET RESISTANT TRANSACTION AND SERVICE WINDOWS

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\*\* NOTE TO SPECIFIER \*\* SafeWood Designs, Inc.; ballistic resistant wood framed storefront, doors, and windows.
This section is based on the products of SafeWood Designs, Inc., which is located at:
7281 Commerce Cir. W.
Fridley, MN 55432
Tel: 844-896-1800
Email:[request info (sales@safewooddesigns.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=SafeWood+Designs,+Inc.&coid=52745&rep=&fax=&message=RE:%20Spec%20Question%20(08411wdd):%20%20&mf=)
Web:<http://safewooddesigns.com>
[[Click Here](http://www.arcat.com/arcatcos/cos52/arc52745.html)] for additional information.
We established SafeWood Designs because our changing world means that safety and security needs are increasing and gun violence is a very real threat. An unfortunate threat to our schools, homes, places of worship, offices, and businesses.
In today's market nearly all ballistic doors, walls and room products are "cookie cutter", often leaving your home or business looking and feeling like a prison.
Why should having safety and security mean losing warmth and elegance? In an ideal world, all secure surroundings would be beautiful, blending with existing millwork and furnishings completely undetected.
At SafeWood Designs you can have both beauty and safety.

1. GENERAL
	1. SECTION INCLUDES

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

* + 1. Bullet Resistant Wood Framed and Trimmed Transaction and Service Windows
	1. RELATED SECTIONS

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

* + 1. Section 06 40 00 - Architectural Woodwork.
		2. Section 08 83 13 - Glass Glazing.
	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 International (ASTM):
			1. ASTM C1036 - Standard Specification for Flat Glass.
			2. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.
			3. ASTM C1349 - Standard Specification for Architectural Flat Glass Clad Polycarbonate.
			4. ASTM D523 - Standard Test Method for Specular Gloss.
			5. ASTM E90 - Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
			6. ASTM E119 - Standard Test for One-Hour Fire-Rating of Building Construction and Materials.
			7. ASTM E413 - Classification for Sound Insulation Rating.
			8. ASTM E1332 - Classification for Determination of Outdoor-Indoor Transmission Class.
			9. ASTM F1233 - Standard Test Method for Forced Entry Testing of Materials and Assemblies.
		2. American National Standards Institute (ANSI):
			1. ANSI Z97.1 - For Safety Glazing Materials Used In Buildings - Safety Performance Specifications And Methods Of Test.
		3. Architectural Woodwork Institute (AWI):
			1. AWI Architectural Woodwork Standards.
		4. Consumer Product Safety Commission (CPSC):
			1. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
		5. International Organization for Standardization:
			1. ISO 9001 - Quality Management System.
		6. National Hardwood Lumber Association (NHLA).
		7. National Institute of Justice (NIJ):
			1. NIJ Standard 0108.01 - Ballistic Standards.
		8. U.S. Department of State:
			1. The International Traffic in Arms Regulations (ITAR).
		9. Underwriters Laboratories (UL):
			1. UL 752 - Specifications and Ammunition, Standard for Bullet Resisting Equipment.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Product Drawings: Include 2-D elevations and material details to aid in installation
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum 3 years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

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

* 1. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
	2. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not store or install products under environmental conditions outside manufacturer's recommended limits.
		2. Maintain temperature and humidity in installation area as required to maintain moisture content of installed woodwork within acceptable limits as defined by AWI, from at least two days prior to the date of product arrival through the remainder of construction period.
		3. Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 degrees F (16 and 32 degrees C) and relative humidity as directed by AWI for the appropriate region during the remainder of the construction period and the warranty period.
	3. WARRANTY
		1. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: SafeWood Designs, Inc., which is located at: 7281 Commerce Cir. W.; Fridley, MN 55432; Tel: 844-896-1800; Email:[request info (sales@safewooddesigns.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=SafeWood+Designs,+Inc.&coid=52745&rep=&fax=&message=RE:%20Spec%20Question%20(08411wdd):%20%20&mf=); Web: <http://safewooddesigns.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.
	1. PERFORMANCE REQUIREMENTS
		1. Standards Compliance:
			1. Perform work in accordance with Quality Standards of the Architectural Woodwork Institute to a Custom quality.
			2. Manufactured in the USA.
		2. Ballistic Resistance:
			1. Bullet Resistant Fiberglass Panels shall be Pultruded ballistic grade fiberglass impregnated with thermoset resin and constructed into rigid flat sheets and shall be “non-ricochet type” to permit the capture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration
			2. Bullet resistance of joints equal to that of the bullet resistant components.
			3. Window shall effectively reduce the penetration potential of bullets at all seams and gaps between different window construction components.
				1. Ballistic Rating, UL 752: Level 3.

\*\* NOTE TO SPECIFIER \*\* Delete ballistic rating options if not required.

* 1. BULLET RESISTANT WOOD SERVICE AND TELLER WINDOWS

\*\* NOTE TO SPECIFIER \*\* Modify configuration paragraph as required to meet project requirements.

* + 1. Configuration: As indicated on product Drawings.
		2. Materials:

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

* + - 1. Fiberglass: Pultruded ballistic grade fiberglass impregnated with thermoset resin constructed into rigid flat sheets.
				1. Fire Rating, ASTM E119: 1 hour.

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

* + - * 1. Thickness, UL Level 3: 1/2 inch (12 mm).
			1. Trim: Hardwood lumber, NHLA, Plain sliced material of quality suitable for transparent finish.

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

* + - * 1. Wood Species: Maple, WMAPL.
			1. Panel Products: Veneer-faced hardwood plywood.
				1. Wood Species: Maple, WMAPL.
			2. Plastic Laminate:

\*\* NOTE TO SPECIFIER \*\* Delete plastic laminate style options not required.

* + - * 1. Style: As indicated on Drawings.
				2. Style: To be selected by Architect from manufacturer's standard options.
			1. Glazing: Asymmetrical composite of glass, clear adhesive interlayers, and high-quality multilayer polycarbonate.
				1. Standards Compliance:

ASTM C1036 for float glass.

ASTM C1349 for laminate quality.

ASTM C1048 for tempered glazing.

ANSI Z97.1 and CPSC 16 CFR 1201: Category 1 and 2 for impact.

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

* + - * 1. Thickness, Level 3: 1.288 inches (32.7 mm).

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

* + - 1. Glazing Accessories: Gaskets and sealant per Manufacturer's recommendations.

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

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

* + 1. Windows:
			1. Finished Sizing:
				1. 24” x 36”
				2. 30” x 36”
				3. 36” x 36”
				4. 48” x 36”
				5. 36” x 48”
				6. 48” x 48”

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

* + - 1. Construction: As recommended by manufacturer to maintain ballistic properties and as approved by Architect.
		1. Stainless steel countertops
			1. Stainless steel countertop with integral non-ricochet deal tray
				1. Finished sizing:

12” finished depth

18” finished depth

* + 1. Speak thru systems
			1. Natural voice talk around window system.
			2. Glass disc backed direct talk thru window system
			3. Stainless steel speak thru, non – amplified.

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

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* + 1. Fabrication:
			1. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
			2. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation.
				1. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
				2. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled.
				3. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting.
				4. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
			3. Provide door, frame and glazing assemblies as integral units ready for installation.
		2. Finishes:
			1. General: To the greatest maximum possible, finish architectural woodwork at fabrication shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
			2. Preparation for Shop-Applied Transparent Finishing: Comply with referenced quality standard for sanding, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.
			3. Transparent Finish:
				1. Grade: Premium.
				2. Finish: Catalyzed lacquer

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

* + - * 1. Sheen, ASTM D523: Satin.

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

* + - 1. Protect mechanical finishes on exposed surfaces as necessary per manufacturer's recommendation.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing 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, approved submittals, and in proper relationship with adjacent construction.
		2. Adjust doors and hardware for proper operation.
	4. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturer's recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION