



**Ballistic Witness – School Safety Video**

**Report No.:** E9327.01-401-47

**Rendered to:**

SAINT-GOBAIN SOLAR GARD, LLC

**PRODUCT TYPE:** Safety and Security Window Film

**Test Date:** 07/09/15  
**Report Date:** 10/16/15

**1.0 Report Issued To:** Saint-Gobain Solar Gard, LLC  
4540 Viewridge Avenue  
San Diego, CA 92123

**2.0 Test Laboratory:** Architectural Testing, Inc., an Intertek company ("Intertek-ATI")  
2250 Massaro Blvd.  
Tampa, FL 33619  
(813)628-4300

**3.0 Project Summary:**

**3.1 Product Type:** Safety and Security Window Film

**3.2 Series/Model:** Solar Gard® Armorcoat®, 14 Mil (.014")

**3.3 Scope:** Testing involved methodical attacks by an adult male to an entry door system including sidelites. Objective of the testing was to simulate an attack by an intruder with a firearm as the primary device to gain access through a door entryway. Testing was performed per the direction of Saint-Gobain Solar Gard, LLC personnel.

**3.4 Test Dates:** 07/09/2015

**3.5 Test Record Retention End Date:** All test records for this report will be retained until 07/09/2019.

**3.6 Test Location:** 12000 US Highway 19 N, Clearwater, FL 33764

**3.7 Test Sample Source:** The test specimens were provided by the client.

**3.8 List of Official Observers:**

<u>Name</u>	<u>Company</u>
Nick Routh	Saint-Gobain Solar Gard, LLC
Miguel Detres	Saint-Gobain Solar Gard, LLC
Steve Schroer	Saint-Gobain Solar Gard, LLC
Lawrence Constantin	Saint-Gobain Solar Gard, LLC
Dustin Waitrul	Pinellas County Sherriff Dept.
Craig Gundry	Critical Intervention Services
Gerald M. Middleton	Intertek / ATI

**4.0 Test Specimen Description:** The glazing that was tested was installed within a storefront entry system including two sidelites. The mockup consisted of a fully glazed outswing aluminum entry door with deadbolt and two fully glazed sidelites. The door size was 36" x 84" (914 mm x 2133 mm) and the sidelites were 24" x 84" (609 mm x 2133 mm). The glass remains consistent with 1/4" (6 mm) tempered glass with applied film as noted in the testing section.

## 5.0 Test Results:

### 5.1 Test #1: Handgun Attack

**5.1.1 Product Type:** 1/4" (6 mm) tempered glass with no safety film applied

**5.1.2 Series/Model:** None

**5.1.3 Film Attachment:** No film was utilized

**5.1.4 Area of Attack:** Sidelite

**5.1.5 Conditioning Temperature:** 21°C (70°F)

**5.1.6 Test Results:** A total of 0:10:13 seconds elapsed before the intruder was able to gain access through the sidelite of the entryway system.

Method of Attack	Number of Impacts/Shots	Time Elapsed for entry (Minutes)	Note
Gunshot	1	0:10:13	1

**Note 1:** The handgun utilized was a Sig Saur P226, 9 mm Luger. The ammunition utilized was full metal jacket.

## 5.0 Test Results: (Continued)

### 5.2 Test #2: Semi-automatic Rifle Attack

**5.2.1 Product Type:** 1/4" (6 mm) tempered glass with Solar Gard® Armorcoat® Safety and Security Window Film

**5.2.2 Series/Model:** Solar Gard® Armorcoat® 14 Mil Clear

**5.2.3 Film Attachment:** Structural Silicone Adhesive

**5.2.4 Area of Attack:** Sidelite

**5.2.5 Conditioning Temperature:** 21°C (70°F)

**5.2.6 Test Results:** A total of 1:34:09 minutes elapsed before the intruder was able to gain access through the sidelite of the entryway system.

Method of Attack	Number of Impacts/Shots	Time Elapsed for entry (Minutes)	Note
Gunshots	2	00:03:08	1
Rifle Butting	63	01:31:01	2, 4
Kicking	14		3, 4
Total	79	01:34:09	N/A

**Note 1:** The rifle utilized was a Bushmaster model # XM15-E25, .223-556 mm. The ammunition utilized was full metal jacket.

**Note 2:** Rifle Butting; using the stock end of the weapon as a hammer to pound specimen.

**Note 3:** Kicking with full lower body force.

**Note 4:** Intruder Mr. Larry Adams of S2 Safety and Intelligence Institute is a trained expert on breaching entrances in buildings. Knowing this, he attacked the filmed glass where bullets had penetrated the filmed glass. This note was added at the request of the client and Intertek/ATI cannot verify the information contained within it.

Intertek-ATI will service this report for the entire test record retention period. Test records that are retained such as datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Intertek-ATI for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For ARCHITECTURAL TESTING, Inc.

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D. Scott Parker  
Laboratory Manager

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Gerald M. Middleton  
Manager – Regional Operations

GMM/jah

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Photographs (5)

Appendix-B: Drawings (6)

This report produced from controlled document template ATI 00479, revised 06/19/15.

## **Appendix A**

### **Photographs**



**Photo No. 1**  
**Specimen #1**  
**Intruder – No Film 1**



**Photo No. 2**  
**Specimen #1**  
**Intruder – No Film 2**



**Photo No. 3**  
**Specimen #1**  
**Intruder – No Film 3**





**Photo No. 4**  
**Specimen #2**  
**.223-556 mm. Ammunition**



**Photo No. 5**  
**Specimen #2**  
**Bushmaster Model # XM15-E25**





**Photo No. 6**  
**Specimen #2**  
**Intruder – With Film 1**



**Photo No. 7**  
**Specimen #2**  
**Intruder – With Film 2**



**Photo No. 8**  
**Specimen #2**  
**Intruder – With Film 3**



**Photo No. 9**  
**Specimen #1 on Left Half of Screen**  
**Specimen #2 on Right Half of Screen**  
**Intruder – With Film 4**

This photo was added at the request of the client and was not taken or reproduced by Intertek/ATI.

## **Appendix B**

### **Drawings**



# ELEVATIONS

Job: 1763 Version: 1

Customer:

Quote Date: 3/18/2015

Job Title: SolarGard 3-11-15 Q request Miguel.detres@saint-gobain.com

QB No:

200 VES 45 FS Framing

Item 1 Descr: Non Impact Option System: YES45FS Quantity: 1

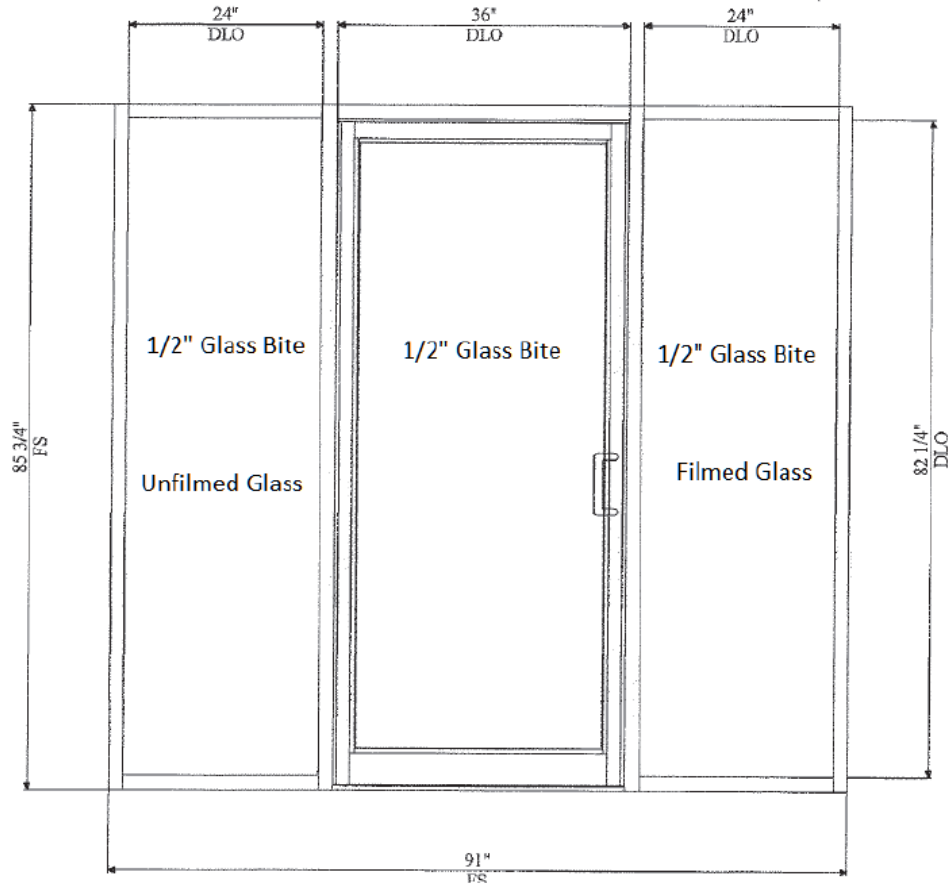
Unit Size: 91" x 85 3/4"

Finish Color: Clear Anodized

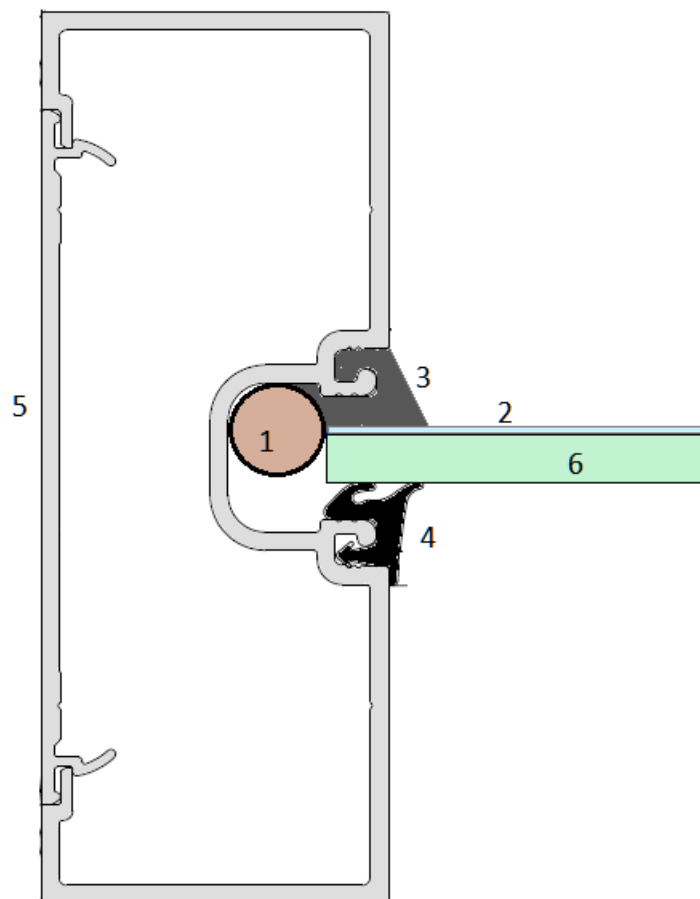
Glass: 1/4 CLR TEMP

Total Area: 54 SqFt

Joints: 12



July 6, 2015



## LEGEND:

1. Foam Backer Rod
2. 14-Mil (.014") Armorcoat Film
3. Dow 995 Structural Sealant - minimum 3/8" on film and frame
4. YKK Rubber Molding
5. YKK 45 CS Storefront System
6. 1/4" Tempered Glass

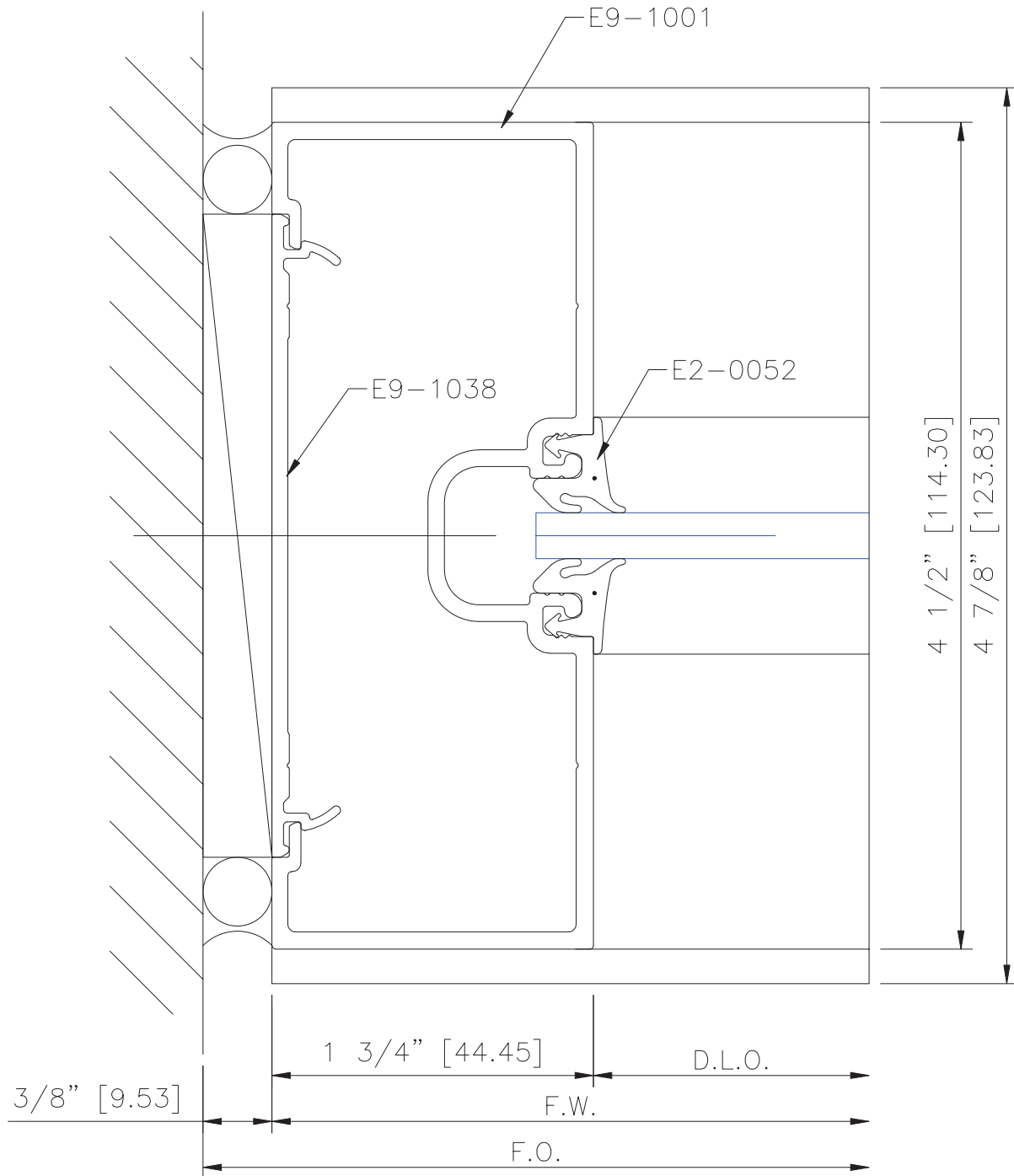
July 6, 2015



Report #: E9321.01-401-47

Date: 10/16/15

Verified by: *Daniel Mueller*



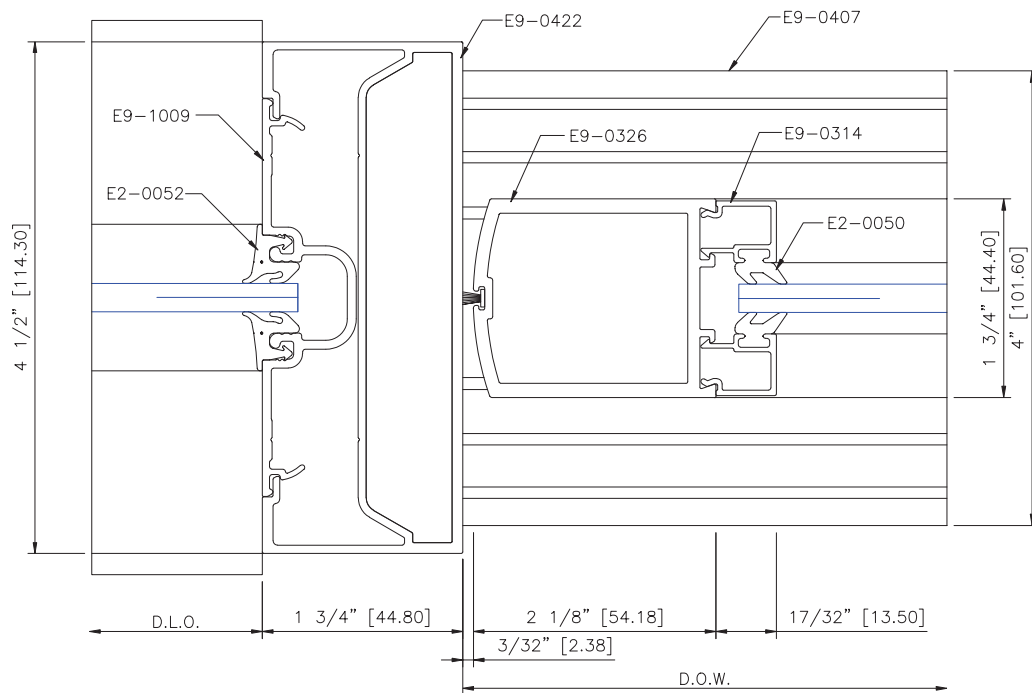
**Intertek**



Report #: E9321.01-401-47

Date: 10/16/15

Verified by: *Daniel H. Hildebrand*





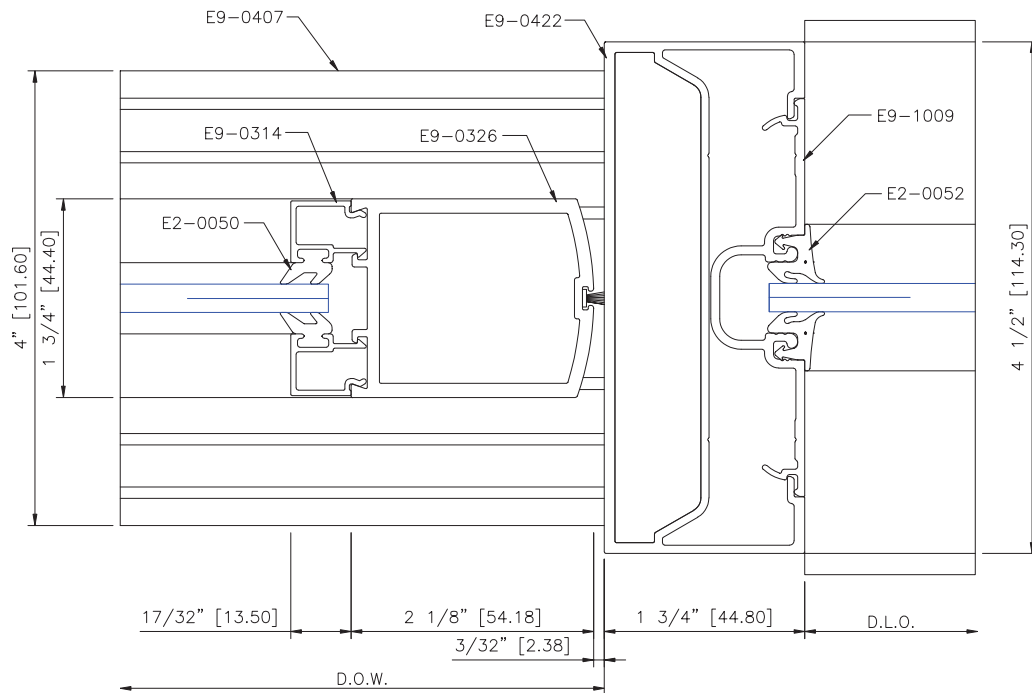
**Intertek**



Report #: E9321.01-401-47

Date: 10/16/15

Verified by: *Daniel Middleton*



**Intertek**



Report #: E9321.01-401-47

Date: 10/16/15

Verified by: *Donald H. Miller*

