

APPLICATION FOR CERTIFICATE OF APPROPRIATENESS (COA)

Building address 210-212 E 3<sup>rd</sup> STREET

Owner of building 210 E 3<sup>rd</sup> STREET LLC Phone [REDACTED]

Owner's email & mailing address [REDACTED]

Applicant Scott V Bartkus Phone: [REDACTED]

Applicant's email & mailing address 1275 Glenlivet Drive Allentown PA 18106

Street and Number                      City                      State                      Zip Code

**APPLICANT MUST ATTEND MEETING FOR CASE TO BE HEARD.**  
**USE THE CHECKLIST ON THE BACK OF THIS APPLICATION TO ENSURE YOUR SUBMISSION IS COMPLETE.**

Application form, photographs, and drawings must be submitted **2 weeks prior** to the regular scheduled meeting in order to be placed on the agenda for the next meeting.

1. **PHOTOGRAPHS** - Photographs of your building and neighboring buildings **must accompany** your application.

2. **TYPE OF WORK PROPOSED** - Check all that apply. Please bring any samples or manufactures specifications for products you will use in this project.

<input checked="" type="checkbox"/> Trim and decorative woodwork	<input type="checkbox"/> Skylights
<input checked="" type="checkbox"/> Siding and Masonry	<input type="checkbox"/> Metal work
<input checked="" type="checkbox"/> Roofing, gutter and downspout	<input checked="" type="checkbox"/> Light fixtures
<input checked="" type="checkbox"/> Windows, doors, and associated hardware	<input checked="" type="checkbox"/> Signs
<input checked="" type="checkbox"/> Storm windows and storm doors	<input type="checkbox"/> Demolition
<input checked="" type="checkbox"/> Shutters and associated hardware	<input type="checkbox"/> Other _____
<input type="checkbox"/> Paint (Submit color chips - HARB only)	

} TO BE REVIEWED AT A LATER DATE.

3. **DRAWINGS OF PROPOSED WORK** - Required drawings **must accompany** your application. Please submit **ONE ORIGINAL AND TEN (10) COPIES OF DRAWINGS, PHOTOGRAPHS, APPLICATION FORM, AND ANY SPECIFICATIONS**

Alteration, renovation, restoration (1/4 or 1/8"=1'0" scale drawings required IF walls or openings altered.)

New addition (1/4" or 1/8"=1'0" scale drawings: elevations, floor plans, site plan)

New building or structure (1/4" or 1/8"=1'0" scale drawings: elevations, floor plans, site plan)

Demolition, removal of building features or building (1/4" or 1/8"=1'0" scale drawings: elevation of remaining site and site plan)

A scale drawing, with an elevation view, is required for all sign submittals

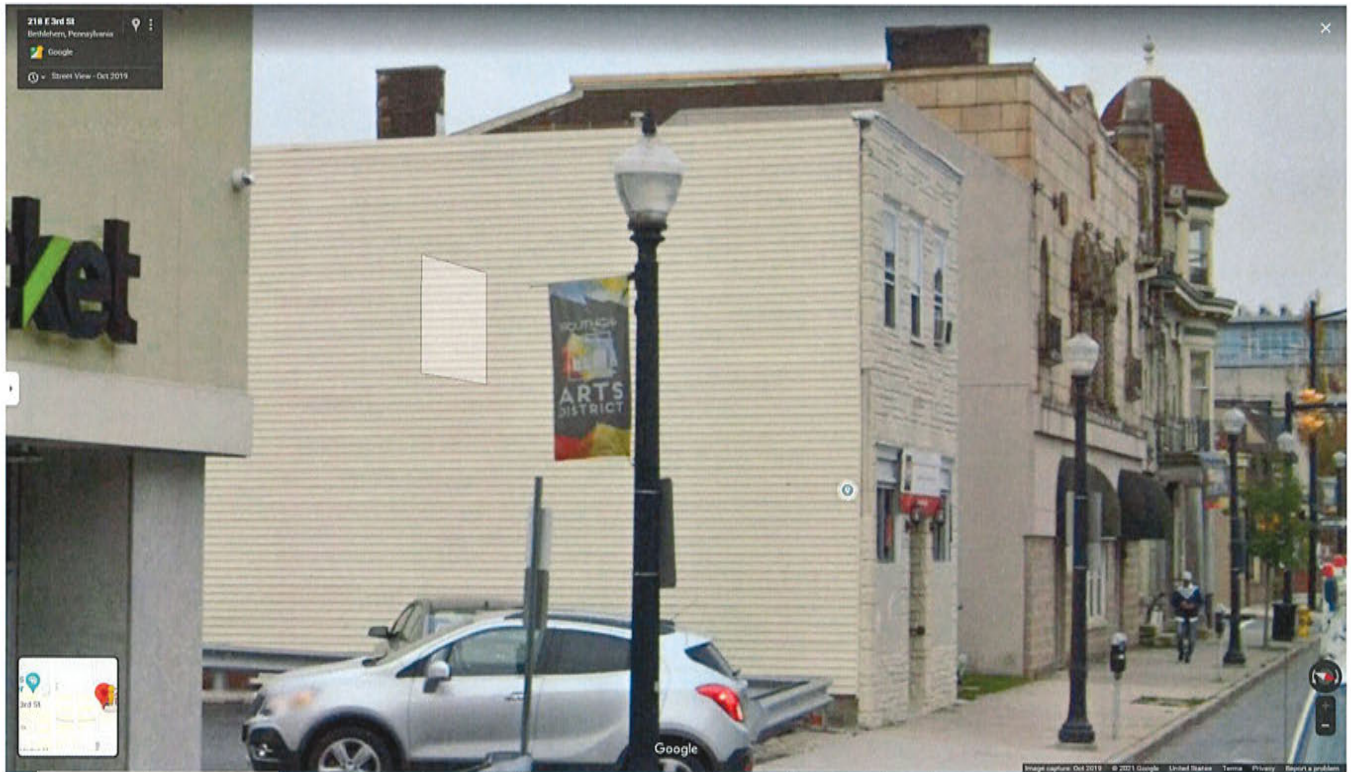
4. **DESCRIBE PROJECT** - Describe any work checked in #2 and #3 above. Attach additional sheets as needed.

Facade changes that will include removing of siding & perma-stone w/ matching brick

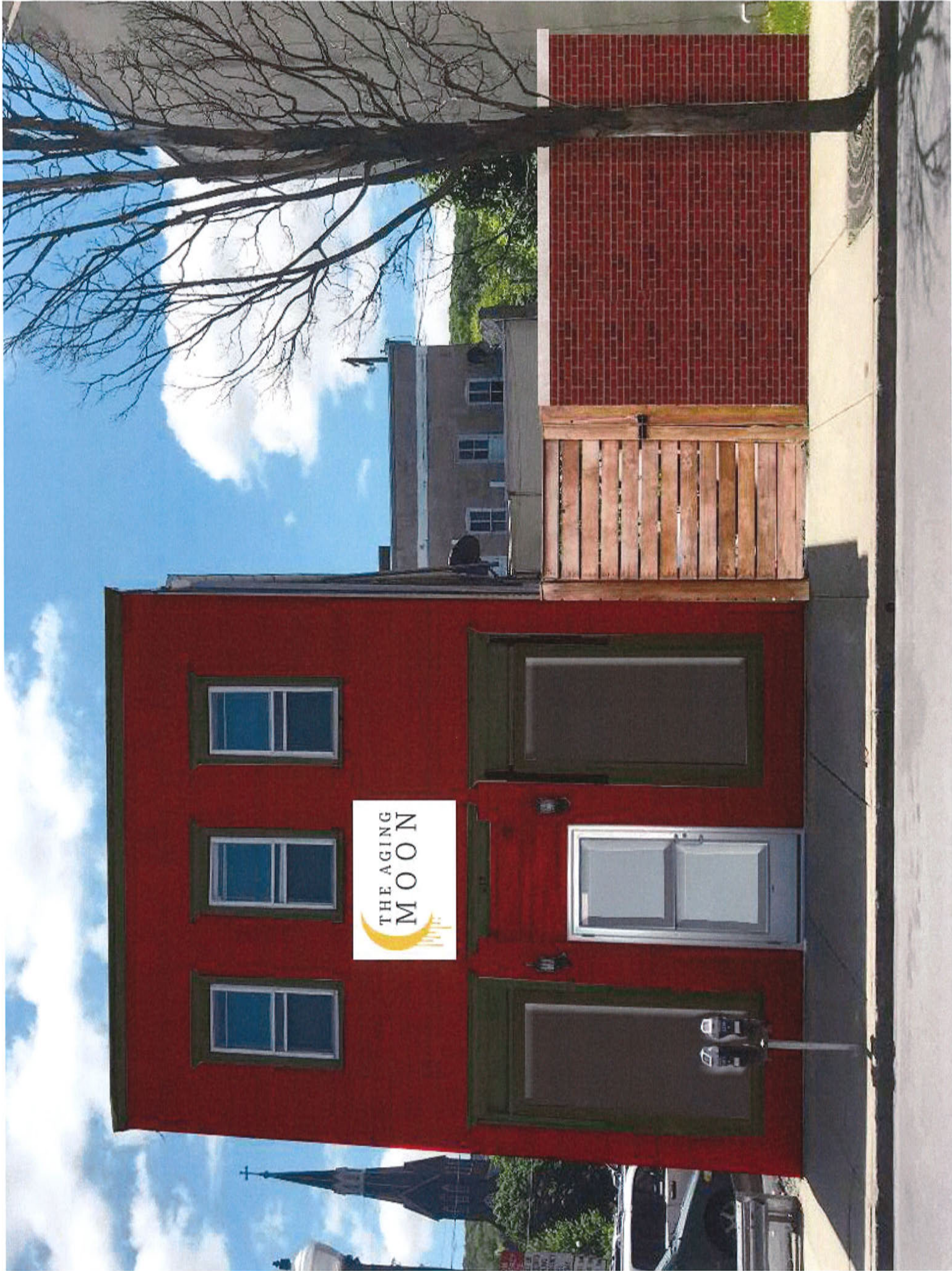
\* SEE BACK OF PAGE

5. **APPLICANT'S SIGNATURE** [Signature] **DATE:** 11/17/21

**OWNER'S SIGNATURE** [Signature] **DATE:** 11/17/21







THE AGING  
MOON

MESKO GLASS  
171 LLOYD STREET  
ALLENTOWN, PA. 18109

Proposal Number: AL11092021A

Phone: 610 - 264 - 3000  
Fax: 610 - 264 - 3103

Submitted To: DUSTIN JOSEPH  
Attention: DUSTIN JOSEPH  
Date Of Bid: 11/9/2021  
Architect: N/A

Project Name: ALUMINUM AND GLASS ENTRY DOOR  
Prepared By: JERRY YENSER  
Date Of Plans: N/A  
Addendas: N/A

Value Of Proposal:

Total Dollars: \$ 3,185.00 Taxable: (Yes) USE

Add For Bond Premium: \$0.00

Any changes from the plans or specifications involving additional costs, shall be executed only upon signed orders and will be an extra charge over and above this proposal.

### SCOPE

FURNISH AND INSTALL ALUMINUM AND GLASS ENTRY DOOR, FRAME, HARDWARE, AND GLASS AS NOTED.

### ALTERNATES ADDS / DEDUCTS

1. N/A

\$ 0.00

### INCLUSIONS

DOORS: NARROW STILE WITH 10" BOTTOM RAIL.  
1 1/2 PAIR NON REMOVABLE PIN BUTT HINGES.  
STANDARD DEADBOLT LOCK, WITH KEY AND THUMBTURN CYLINDERS - STANDARD PUSH AND PULL HANDLES.  
ADJUSTABLE POWER AND CLOSING SPEED, SURFACE MOUNTED DOOR CLOSER.  
DOOR BOTTOM WEATHER SWEEP.

FRAMING SYSTEM: 2" X 4 1/4" CENTER GLAZED ALUMINUM FRAME, WITH TRANSOM GLASS ABOVE DOOR.  
STANDARD ALUMINUM THRESHOLD.

MATERIAL FINISH: STANDARD DARK BRONZE ANODIZED ALUMINUM FINISH.

BRAKE METAL: NONE REQUESTED AT THIS TIME, OR INCLUDED.

GLASS: 1" OVERALL THICKNESS, CLEAR TEMPERED INSULATED GLASS UNITS, USING 1/4" THICK GLASS  
ON BOTH SIDES OD 1/2" SEALED AIRSPACE.  
ALL GLASS TO BE TEMPERED SAFETY GLASS.

QUOTED FROM: VERBAL CONVERSATION

SHOP DRAWINGS: N/A

ENGINEERING: Structural PSF: N/A Deflection: N/A

### EXCLUSIONS

#### PROJECT SPECIFIC

1. NEW OPENINGS SUITABLE FOR PROPER INSTALLATION OF FRAMES, INCLUDING WOOD BLOCKING IN METAL STUDS.
2. ELECTRICAL, SECURITY, CARPENTRY, MASONRY, EXTERIOR OR INTERIOR FINISH TRIM WORK.
3. ANY FILLING OR PATCHING OF FLOORS, WALLS, CEILING, PAINTING, WALL OR FLOOR COVERINGS.  
NOTE, EXTERIOR AND INTERIOR ( IF ACCESSABLE) CAULKING IS INCLUDED.
4. ENGINEERING OR SHOP DRAWINGS, FIELD TESTING UNLESS NOTED ABOVE.
5. ADDITIONAL MOBILIZATIONS OTHER THAN AS REQUIRED TO COMPLETE OUR SCOPE OF WORK.
6. FINAL KEYING OR CORES UNLESS SPECIFIED ABOVE.
7. PERMIT OR INSPECTION RELATED FEES, CONSIQUENCIAL OR LIQUIDATED DAMAGES.
8. ANY OTHER WORK OR MATERIALS NOT OUTLINED ABOVE.

### TERMS

1. FIFTY PERCENT DEPOSIT WITH PROPOSAL ACCEPTANCE, BALANCE DUE UPON OUR COMPLETION
2. PROPRIETARY MATERIALS WILL REQUIRE SPECIAL PAYMENT TERMS INCLUDING DEPOSITS AND PREPAYMENTS.
3. STORED MATERIAL TO BE PAID FOR ON SITE OR IN OUR INSURED WAREHOUSE.
4. ANY OTHER TERMS OR OPEN CREDIT ACCOUNT MUST BE APPROVED BY OUR MAIN OFFICE.

JERRY YENSER

Signature: 

Date: 11-9-2021

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# MESKO

glass

Mesko Glass & Mirror Company, Inc.

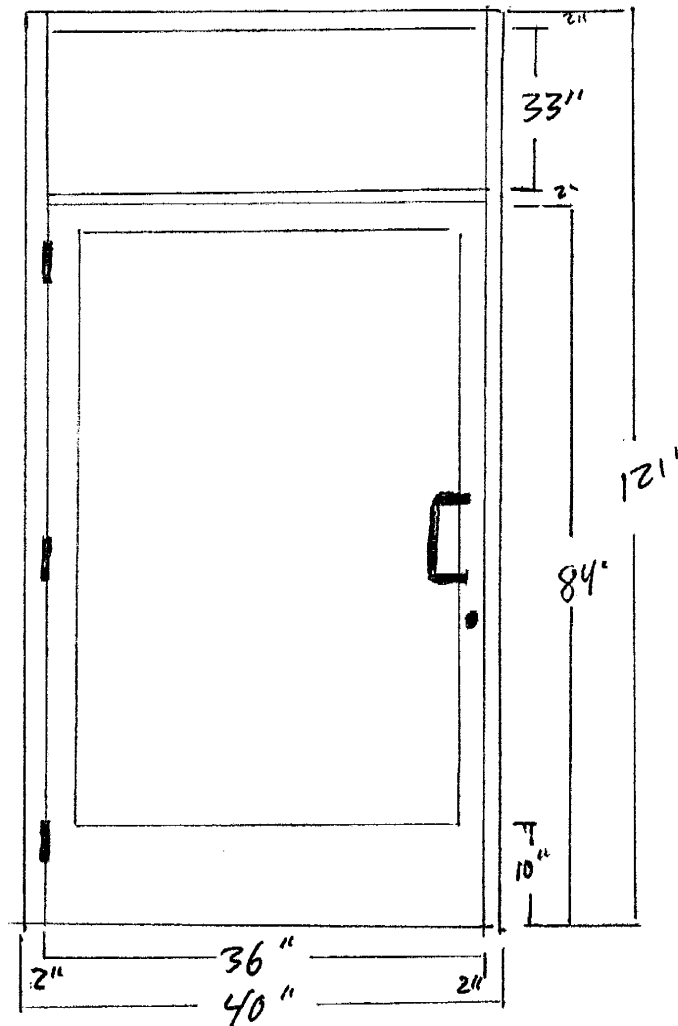
171 Lloyd Street, Allentown, Pa. 18109

Phone (610) 264-3000 Fax (610) 264-3103

11-9-2021

To: Dustin Joseph  
Ref: Entrance Quote

041



Rough opening  
Required for  
this Entrance  
40 1/2" wide  
121 3/8" High

Std. Dark Bronze Anodized  
Narrow Stile Door - 10" Bottom Rail  
1 1/2" Pair Butt Hinges  
Deadbolt Lock with Key & Thumbturn cylinders  
Standard Push Pull Handles  
1" Glazing Beads  
2" x 4 1/2" Frame w/ Transom - Std Threshold  
Door bottom Sweep

# 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

by Veranda [View Product](#) (90) 755

**\$91<sup>58</sup>** /box

[Product Overview](#)

**[Specifications](#)**

[Questions & Answers](#)

[Customer Reviews](#)

[Home](#) / [Outdoor Living](#) / [Composite](#) / [Boards, Plank & Panels](#) / [Appearance & Extras](#) / [PVC Trim](#)

Internet #203640250 Model #827000002



Veranda

## 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

[View Product](#) (90) [Questions & Answers](#) (51)







## 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

by Veranda (90) 755

**\$91<sup>58</sup>** /box

[Product Overview](#)

**Specifications**

[Questions & Answers](#)

[Customer Reviews](#)

Price for all three:

**\$342<sup>27</sup>**

[View All Items in this Collection](#)

**This item:** 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)  
**\$91.58**

Veranda 3/4 in. x 5-1/2 in. x 8 ft. White PVC Trim (6-Pack)  
**\$134.34**

Veranda 1/2 in. x 12 in. x 8 ft. Reversible White Cellular PVC Fascia (3-Piece per Box)  
**\$116.35**

### Product Overview

The 3/4 in. x 3-1/2 in. x 8 ft. White Reversible PVC Trim Veranda hp cellular PVC trim is a durable alternative to wood siding. It is engineered to resist expansion and contraction and has a hard surface that protects against dents and weather damage. It is the only S4S (Smooth 4 sides) material that prevents dirt and ultra-easy to clean. The vinyl material is fire retardant and protected against rot and termites. It installs easily with screws or nails.

### Info & Guides

You will need Adobe® Acrobat® Reader to view PDF documents. Download a free copy from the Adobe Web site.

**x** [Shop This Collection from Veranda \(8\)](#)

[All Items \(8\)](#)

[Appearance Boards \(8\)](#)



# 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

by Veranda vinyl/plastic (90) 755

**\$91<sup>58</sup>** /box

[Product Overview](#)

**Specifications**

[Questions & Answers](#)

[Customer Reviews](#)

## Sponsored Products

**Legacy LP Legacy Premium 23/32 in. Tongue and**

vinyl/plastic (79)

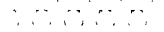
**\$54<sup>48</sup>**

## Specifications

### Dimensions

Actual Product Length (ft.)	8 ft
Actual Product Thickness (in.)	0.75 in
Actual Product Width (in.)	3.5 in
Coverage Area (sq. ft.)	13.9 ft <sup>2</sup>

# 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

by Veranda  (90) 755

**\$91<sup>58</sup>** /box

[Product Overview](#)

**Specifications**

[Questions & Answers](#)

[Customer Reviews](#)

## Details

Appearance Board Type

PVC Boards

Board Joint Type

Square Edge

Fastener recommendation

Nails

Features

No Additional Features

Finish Type

Finished

Material

Vinyl

Number Of Boards Per Pack

6

Returnable

90-Day

Texture



Smooth

## Warranty / Certifications


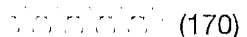
Manufacturer Warranty

Lifetime Limited Warranty


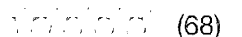
## Customers Who Viewed This Also Viewed

  
**Veranda** 3/4 in. x  
5-1/2 in. x 8 ft.  
White PVC Trim (6-  
 (57)


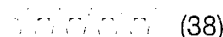
**\$134<sup>34</sup>** /box

  
**Veranda** 3/4 in. x  
2-1/2 in. x 8 ft.  
White PVC Trim (9-  
 (170)



**\$92<sup>75</sup>** /box

  
**Veranda** 3/4 in. x  
7-1/4 in. x 8 ft.  
White PVC Trim (3-  
 (68)

**\$96<sup>95</sup>** /box

  
**Veranda** 3/4 in. x  
1-1/2 in. x 8 ft.  
White PVC Trim  
 (38)

**\$100<sup>02</sup>** /box

  
**Veranda** 3/4 in. x  
3-1/2 in. x 16 ft.  
Cellular PVC Trim  
 (42)

**\$37<sup>95</sup>**

# 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

by Veranda (90) 755

\$91<sup>58</sup> /box

[Product Overview](#)

**[Specifications](#)**

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QUESTIONS & ANSWERS

## 51 Questions

[Search Questions & Answers](#)

[View all Questions & Answers](#)

Showing 1-4 of 51

[Newest Questions](#)

**Q:** Is this textured on one side

by John | Oct 17, 2021

**2 Answers**

**Q:** Is this product suitable as shelving with supports every 1...

by Dunkin | Aug 16, 2021

**1 Answer**

**Q:** converting bus. want to create a grid with these, put insul...

by bv | Jul 25, 2021

**2 Answers**

**Q:** Can Thor product be glued tighter so no nails heads to s...

by Bill | Feb 8, 2021

**2 Answers**

# 3/4 in. x 3-1/2 in. x 8 ft. White PVC Trim (6-Pack)

by Veranda (90) 755

\$91<sup>58</sup> /box

[Product Overview](#)

**Specifications**

[Questions & Answers](#)

[Customer Reviews](#)

## Related Searches

[pvc trim board](#)

[pvc 1x4](#)

[pvc lumber](#)

[pvc trim](#)

[white pvc trim](#)

[azek trim pvc board](#)

## Related Products

**3/4 in. x 5-1/2 in.  
x 8 ft. White PVC  
Trim (6-Pack)**

The 3/4 in. x 5-1/2  
in. x 8 ft. White

[See More](#)

**3/4 in. x 7-1/4 in.  
x 8 ft. White PVC  
Trim (3-Pack)**

The 3/4 in. x 7-1/4  
in. x 8 ft. White

[See More](#)

**3/4 in. x 9-1/4 in.  
x 8 ft. White PVC  
Trim (3-Pack)**

The 3/4 in. x 9-1/4  
in. x 8 ft. White

[See More](#)

**3/4 in. x 11-1/4 in.  
x 8 ft. White PVC  
Trim (3-Pack)**

The 3/4 in. x 11-  
1/4 in. x 8 ft.

[See More](#)

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### Automotive

[Shop Less than 15 in. Towing Lights](#)

[Shop Less than 15 in. PVC Trim](#)

[See More](#)

# MATERIAL SAFETY DATA SHEET

## A. DISTRIBUTOR

COMPANY: Brick It, Inc  
 STREET: 17 Central Ave  
 Hauppauge, NY 11788

PHONE NUMBERS:  
 GENERAL INFO: (631) 244-3993

DATE Revised: February 2019

## B. PRODUCT IDENTIFICATION

PRODUCT NAMES: Thin Brick Pavers – Bricktile, Bricktile Rustics, Bricktile Classics  
 Thin Veneering Brick – Vee Brick  
 Coping  
 Brick Pavers – Pee Dee Pavers

CHEMICAL NAME: Mixture

CHEMICAL FAMILY: Predominately Aluminum Silicates

FORMULA: Mixture

## C. PRODUCT COMPONENT(S)

COMPONENTS	<u>CAS NO.</u>	% BY WEIGHT	<u>ACQIH TLV</u>	<u>OSHA PEL</u>
Aluminum Silicates	Various	75-85	10 MG/M <sup>3</sup>	15 MG/M <sup>3</sup>
Iron Compounds	Various	0-5	10 MG/M <sup>3</sup>	10 MG/M <sup>3</sup>
Calcium Compounds	Various	0-12	15 MG/M <sup>3</sup>	15 MG/M <sup>3</sup>
Quartz	14808-60-7	Varies	0.1 MG/M <sup>3</sup> (Respirable)	10 MG/M <sup>3</sup> %SiO <sub>2</sub> +2(Respirable)
Barium Compounds	Various	0-3	NE	NE
Iron Chromite	1308-31-2	0-3	1 MG/M <sup>3</sup>	1 MG/M <sup>3</sup>
Manganese Compounds	Various	0-3	NE	NE
Magnesium Compounds	Various	0-3	NE	NE
Spodumene Fines	Various	0-10	NE	NE
Feldspathic Sand	Various	0-25	NE	NE
Bottom Ash	Various	0-16	NE	NE

## D. PERSONAL PROTECTION INFORMATION

VENTILATION: When sawing brick, use adequate ventilation to maintain exposure below the OSHA PEL & ACQIH TLV.

RESPIRATORY PROTECTION: For concentrations exceeding the OSHA PEL or ACQIH TLV, use NIOSH/MSHA approved respirator.

EYE PROTECTION: Use safety glasses with side shields. Face shields should also be used where dry sawing of brick occurs.

SKIN PROTECTION: Use gloves and/or protective clothing if abrasion or allergic reactions are experienced.

OTHER: Wear steel-toed safety shoes. A wet saw is recommended for sawing brick.

NA – Not Applicable

NE – Not Established

**E. HANDLING AND STORAGE PRECAUTIONS**

Avoid dust inhalation, eye contact and excessive or prolonged skin contact. Wear protective equipment and/or garments described in Section D if exposure conditions warrant.

**F. REACTIVITY DATA**

STABILITY: STABLE   X   UNSTABLE \_\_\_\_\_  
Conditions to avoid: None known

INCOMPATIBILITY (Materials to avoid): None known

HAZARDOUS POLYMERIZATION: MAY OCCUR \_\_\_\_\_ WILL NOT OCCUR   X    
Conditions to avoid: None known

HAZARDOUS DECOMPOSITION PRODUCTS: None Known

**G. HEALTH HAZARD DATA \***

RECOMMENDED EXPOSURE LIMITS: See Section C

## ACUTE EFFECTS OF OVEREXPOSURE:

EYE: May cause mild to severe irritation by abrasion with dust or chips.

SKIN: Brick dust or chips may cause allergic reactions. Excessive exposure may result in abrasions.

INHALATION: Brick dust or chips may cause congestion and irritation in nasal and respiratory passages.

INGESTION: None known.

## SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:

Excessive exposure to particulate (dust) over an extended period of time may result in the development of pulmonary disease.

## CARCINOGENICITY:

NTP and OSHA do not include this material, or its components, in their carcinogen listings. IARC has classed respiratory crystalline silica (quartz) as a class 2A carcinogen.

## FIRST AID AND EMERGENCY PROCEDURES:

EYE: Flush eyes with running water. Obtain medical assistance if irritation continues.

INHALATION: Remove from exposure to airborne particulate. Consult a physician if breathing does not return to normal.

INGESTION: NA

SKIN: Wash with soap and water. If an allergic reaction causes a rash that does not heal in an appropriate time, consult a physician. Treat abrasions as any other scrape or cut, with disinfectants and bandages.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Excessive dust exposure may aggravate any existing respiratory disorders or diseases. Possible complications of allergies resulting in irritation to skin, eyes and respiratory passages may occur from excessive exposure to dusts.

\* The dust generated from sawing brick may contain silica and may be a potential health problem for the lungs although we are aware of no scientific evidence of a health problem.



**H. PHYSICAL DATA**

APPEARANCE AND ODOR:	Granular solid, essentially odorless, wide range of colors.
BOILING POINT:	NA
SPECIFIC GRAVITY (H <sub>2</sub> O=1)	2.6 (approximate)
VAPOR PRESSURE:	NA
PERCENT VOLATILE BY VOLUME:	NA
VAPOR DENSITY:	NA
SOLUBILITY IN WATER:	Negligible
EVAPORATION RATE (Ethyl Ether=1)	NA
PH:	NA

**I. FIRE AND EXPLOSION DATA**

FLASH POINT:	NA
FLAMMABLE LIMITS (% by volume in air)	LEL <u>NA</u> VEL <u>NA</u>
FIRE EXTINGUISH MEDIA:	NA
SPECIAL FIRE FIGHTING PROCEDURES:	NA
FIRE AND EXPLOSION HAZARDS:	NA

**J. SPILL OR LEAK PROCEDURES**

The only concern is to control dusts.

**K. WASTE DISPOSAL**

This material is classified as a non-hazardous solid waste for disposal.

**L. RCRA CLASSIFICATION**

NA

**M. DOT SHIPPING DATA**

NA

**N. PROTECTION REQUIRED FOR WORK ON CONTAMINATED EQUIPMENT**

NA

NA – Not Applicable

NE – Not Established

**O. HAZARD CLASSIFICATION**

X This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard Section 1810.1200:

<input type="checkbox"/>	Combustible Liquid	<input type="checkbox"/>	Flammable Aerosol
<input type="checkbox"/>	Compressed Gas	<input type="checkbox"/>	Explosive
<input type="checkbox"/>	Flammable Gas	<input checked="" type="checkbox"/>	Health Hazard
<input type="checkbox"/>	Flammable Liquid	<input type="checkbox"/>	Organic Peroxide
<input type="checkbox"/>	Flammable Solid	<input type="checkbox"/>	Oxidizer
<input type="checkbox"/>	Pyrophoric	<input type="checkbox"/>	Unstable
<input type="checkbox"/>	Water Reactive		

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 10.1200

**P. SARA (TITLE III) REPORTS**

Components of this product that are subject to the reporting requirements of Section 313 of SARA and 40 CFR Part 372:  
NA

Components of this product that are included in the SARA Extremely Hazardous Substance List (40 CFR Part 355):  
NA

**Q. OTHER INFORMATION**

\* BRICK IT INC considers its products an "article" as defined in 29 CFR Part 1200 (b)(5)(iv) and 40 CFR Part 372.38. As an article, a MSDS is not required and the product is exempt from all other requirements of the hazardous communication standard. OSHA requires a MSDS for brick since it is occasionally dry sawed.

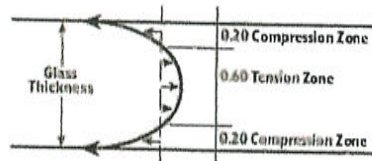
NA -- Not Applicable

NE -- Not Established

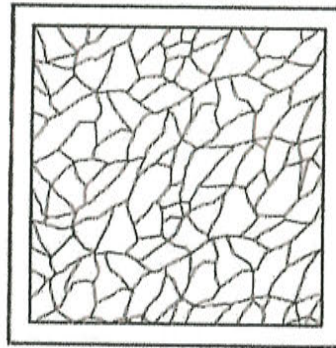
## Tempered Glass Product Data Sheet

### Stress

Tempered glass gains its added strength from these compressed surfaces. However, if the surface is penetrated by a scratch or an impact, the glass will break into a number of small particles.



*Final Stress Distribution. The sum of the forces in compression equals the force in tension.*



Typical Breakage Pattern

### Certifications:

**TUFFVUE** Tempered Glass Products manufactured by Syracuse Glass Company meet the requirements of :

- ASTM C1036 Standard Specification for Flat Glass
- ASTM C1048 Standard Specification for Heat Treated Flat Glass
- ANSI Z97.1 American National Standard for Safety Glazing Materials Used in Buildings
- 16 CFR 1201 Category II Consumer Products Safety Commission Safety Standard for Architectural Glazing Materials

Syracuse Glass Company is a licensee of the Safety Glazing Certification Council (SGCC), a non-profit corporation that provides third-party certification of safety glazing materials through unannounced in-plant inspections and laboratory testing.

One General Motors Drive  
PO Box 381 - Syracuse, NY 13206  
Phone: 315.437.9971  
Toll Free: 800.962.3211  
Fax: 315.437.8118



[www.syracuseglass.com](http://www.syracuseglass.com)

Our Commitment Shines Through

Flat Glass Products - Tempering  
Insulating - Beveling - Edgework  
All-Glass Doors - Shower Enclosures  
StoreFront and Curtain Wall Systems  
Aluminum Entrances

## PRODUCT CERTIFICATIONS

### TEMPERED AND HEAT STRENGTHENED PRODUCTS

Syracuse Glass Company (SGC) manufactures and certifies its Tempered Glass Products to comply with:

**ANSI Z97.1** American National Standard for Safety Glazing Materials Used In Buildings, Class A

**CPSC 16 CFR 1201** Safety Standard for Architectural Glazing Materials, Category II.

**CAN/CGSB 12.1** National Standards of Canada

CPSC Compliance documents available at [www.syracuseglass.com](http://www.syracuseglass.com).

SGC is a licensee of the Safety Glazing Certification Council (SGCC) Certification Program which requires periodic independent laboratory testing and unannounced plant quality audits and inspections. SGCC Certification letter or Certified Product Directory, or independent laboratory test results are available on request.

Tempered and Heat Strengthened Glass Products manufactured by SGC meet the requirements of:

**ASTM C1036** Standard Specification for Flat Glass (Quality Level Q3), and

**ASTM C1048** Standard Specification for Heat Treated Flat Glass

### INSULATING GLASS PRODUCTS

Syracuse Glass Company manufactures Insulating Glass which meets requirements of:

**ASTM E2190** (formerly ASTM E773 and E774) Standard Specification for Insulating Glass Unit Performance and Evaluation. Independent laboratory test results are available upon request.

SGC is a licensee of the Insulating Glass Certification Council (IGCC) Certification Program which requires periodic accelerated laboratory testing to **ASTM E2188** and **E2189** test methods and unannounced plant quality audits and inspections. IGCC Certification letter or Certified Product Directory is available on request.

SGC Insulating Glass Products comply with the requirements of:

**ASTM C1036** Standard Specification for Flat Glass (Quality Level Q3)

## Tempered Glass Product Data Sheet

Annealed float glass can be cut to a desired finished size and tempered to provide a glass product with greater resistance to thermal, mechanical or impact loads or to break in a manner that allows its use where safety glass is mandated by federal law or building code. Although tempered glass has increased resistance to thermal loads, it is not a fire-rated glazing product.

Syracuse Glass Company's TUFFVUE Tempered glass is available in 1/8" - 3/4" thickness in a size range from a minimum of 4"x10" to a maximum of 84" x 144". Clear, Tinted, Reflective, Low E, and most Rolled Pattern Glass can be tempered. Glass products with extremely uneven surfaces can not be tempered.

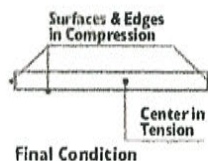
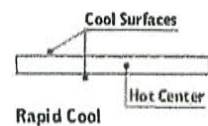
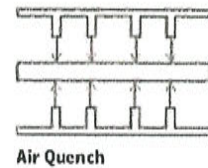
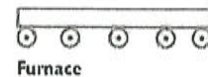
Tempered glass is used where high resistance to mechanical loads calls for maximum glass strength achievable for a given glass thickness, and where a safety glazing product is mandated by law, by building code or by a desire for maximum safety in the event of human impact.

While tempered glass is very strong, it can be broken. And when it does break, it disintegrates into tiny pieces. Therefore it should be used with caution where falling material would be a concern, like windows in a multi-story building over a court yard or plaza, or where security is of paramount concern, like a prison or jewelry store display window, or in a furniture application where glass disintegration would risk collateral damage, like a shelf or table holding precious objects. Tempering also enables heat absorbing glass products to withstand high thermal loads and stresses, but the industry recommends the use of heat strengthened glass where thermal stress is predicted. The tempering process adds distortion and changes the glass surface, factors that should be considered if appearance of reflected images is critical.

### Tempering Process

Syracuse Glass Company fabricates tempered glass with a UNIGLASS state-of-the-art electrically heated horizontal furnace with the latest technological innovation in tempering - convection. The glass is conveyed into a heating chamber where it oscillates on ceramic rollers until it reaches a temperature of approximately 1200 degrees Fahrenheit.

The glass exits the furnace into a quench chamber where it is rapidly cooled by air driven through a series of nozzles by two six hundred horsepower motors. The air is directed to both surfaces of the piece of glass uniformly - top and bottom. The quench process locks the top and bottom surfaces and edges in a state of high compression around a central core in compensating tension. The compression zone is about 20 percent of the glass thickness from each surface, surrounding a center core tension zone of about 60 percent of the glass thickness.



## Tempered Glass Product Data Sheet

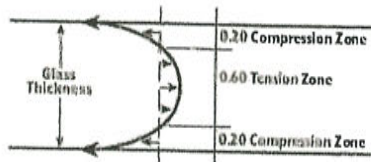
### Properties

- Tempered glass has about four times the strength to resist impact, or mechanical and thermal loads compared to annealed glass of equal thickness.
- The color, clarity, chemical composition and light transmission characteristics of glass remain unchanged after tempering.
- Tempering does not reduce glass deflection under load. Glass deflection can be reduced by using glass of greater thickness.
- Tempered glass breaks into small pieces less likely to cause injury than annealed or heat strengthened glass.
- Tempered glass can not be cut or drilled, sandblasted or etched, or edge polished or ground. Any fabrication or field alteration will weaken or break tempered glass.
- Tempered glass is subject to rare "spontaneous breakage" caused by one or a combination of these causes: surface or edge damage, deep scratches or gouges, severe weld spatter, missile or windborne debris impact, glass to metal contact, wind/thermal loading or rare inclusions or impurities in the float glass that weaken the compression layer of the glass. Breakage may occur long after the damaging event, as a result of normal thermal or wind cycling, but seemingly for no apparent cause.
- When tempered glass breaks, the resulting small pieces can vacate the framing system under a lateral load. Other fabricated glass options like laminated glass or heat strengthened glass are less likely to leave the framing system in the case of breakage.
- When viewing tempered glass in certain conditions, a pattern of iridescent spots or darkish shadows may become visible. This is the strain pattern created by the quench process. Sharp viewing angles, polarized light, thick glass, and glass coatings increase the visibility of the strain pattern.
- The original flatness of glass is slightly modified by the tempering process, causing reflected images to be more distorted than annealed glass. Warp, bow, and roller distortion are inherent characteristics of tempered glass. Syracuse Glass Company produces product among the best in the industry, but distortion of reflected images can not be entirely eliminated, especially when viewed at high incidence angles, with even the best equipment and craftsmanship. As distortion is not easily quantifiable, full scale mock-up samples are recommended for critical viewing areas.
- As a result of hot glass contact with ceramic rollers, some glass surface changes will occur. Minute glass particles (fines) from the glass cutting and edging process, and airborne dust may adhere to one or both glass surfaces. Also, the physical contact of the soft glass surface with the rollers may result in a marking of the glass surface. These surface conditions are typically not visible to the eye under normal viewing conditions. Tempered glass surfaces should not be cleaned with razor blades or metal scrapers.
- Sizes, locations, and quantities of holes and notches in tempered glass must be governed by ASTM C1048 guidelines.
- Tempered glass must have seamed or polished edges.
- Tempered glass is supplied with a permanent identifying mark in one corner identifying the manufacturer and the applicable safety glazing standards unless ordered "no logo".

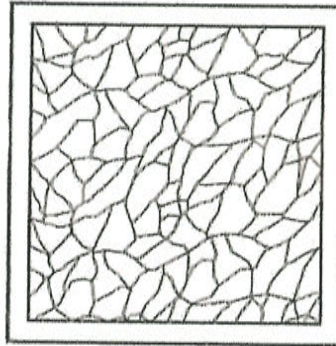
## Tempered Glass Product Data Sheet

### Stress

Tempered glass gains its added strength from these compressed surfaces. However, if the surface is penetrated by a scratch or an impact, the glass will break into a number of small particles.



*Final Stress Distribution. The sum of the forces in compression equals the force in tension.*



Typical Breakage Pattern

### Certifications:

**TUFFVUE** Tempered Glass Products manufactured by Syracuse Glass Company meet the requirements of :

- **ASTM C1036** Standard Specification for Flat Glass
- **ASTM C1048** Standard Specification for Heat Treated Flat Glass
- **ANSI Z97.1** American National Standard for Safety Glazing Materials Used in Buildings
- **16 CFR 1201** Category II Consumer Products Safety Commission Safety Standard for Architectural Glazing Materials

Syracuse Glass Company is a licensee of the Safety Glazing Certification Council (SGCC), a non-profit corporation that provides third-party certification of safety glazing materials through unannounced in-plant inspections and laboratory testing.