



Property (Section of map)

Property Address: 2118 E Broad Street Richmond, VA 23223

Current zoning

Historic District: CAROLAN URBAN

Application is submitted for check and

- ☒ Alteration
☐ Demolition
☐ New Construction

Project Description (attach additional sheets if needed)

REPLACING 14 WINDOWS (SEE ATTACHED)

Applicant/Contact Person: Kathryn Miller / Pamela Mosher

Company: Renewed by Andersen

Mailing Address: 3885 Deep Rock Road

City: Richmond

State: VA

Zip Code: 23250

Telephone: 804.1.353.2261

Email: kmiller@richmondwindow.com pmosher@richmondwindow.com

Billing Contact? ☐ Applicant Type (owner, architect, etc.): Contractor

Property Owner: Patrick Ladden

If Business Entity, name and title of authorized signatory

Mailing Address: 3118 E Broad Street

City: Richmond

State: VA

Zip Code: 23223

Telephone: (Bus): 654.9150

Email: PLadden@L.L. Constantine, LLC

Billing Contact?

Owner must sign at the bottom of this page

Acknowledgement of Responsibility

Compliance: If granted, you agree to comply with all conditions of the certificate of appropriateness (COA). Revisions to approved work require staff review and may require a new application and approval from the Commission of Architectural Review (CAR). Failure to comply with the conditions of the COA may result in project delay or legal action. The COA is valid for one (1) year and may be extended for an additional year, upon written request and payment of associated fee.

Requirements: A complete application includes all applicable information requested on checklists available on the CAR website to provide a complete and accurate description of existing and proposed conditions, as well as payments of the application fee. Applications proposing major new construction, including additions, should meet with staff to review the application and requirements prior to submitting. Owner contact information and signature is required. Late or incomplete applications will not be considered.

Zoning Requirements: Prior to Commission review, it is the responsibility of the applicant to determine if zoning approval is required. Application materials should be prepared in compliance with zoning.

Property Owner Signature

Patrick Ladden





Date: April 23, 2016



Quote

DBA: RENEWAL BY ANDERSEN OF CENTRAL VIRGINIA
Legal Name: Richmond Window Corporation
Class A 2701010633A Exp 10/31/25
3895 Deep Rock Road | Richmond, VA 23233
Kathryn Miller (407)739-5288

Patrick Ludden & Beth Ludden
3118 E Broad St.
Richmond, VA 23223
Year Built: 1880
(804)539-5790

ID#:	ROOM:	SIZE:	IMAGE:	DETAILS:
				<p>Misc: Misc, 7) HOA (Home Owners Association), HOA Approval Required, Quantity 1, HOA Name: Commission of Architectural Review - HOA please review in office</p> <p>HOA Contact Name:</p> <p>HOA Email or Phone:</p> <p>Upcoming Meeting Date if Known:</p> <p>Description of Any Style Changes:</p> <p>-Window Style?</p> <p>-Opening Change?</p> <p>-Color?</p> <p>-Grille Pattern?</p> <p>-Any Other?</p> <p> *Agreement is subject to HOA approval*</p>
				<p>Misc: Misc, 1) Miscellaneous, Full Aluminum Wrap - White, Quantity 1,</p>
				<p>Misc: Misc, 1) Miscellaneous, Lead Safe Work Practices (Built before 1978), Quantity 1,</p>
101	Kitchen	36 W 62 H		<p>Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White</p> <p>Performance Calculator: PG Rating: 40 DP Rating: +40 / - 40</p> <p>Glass: All Sash: High Performance SmartSun Glass, No Pattern , Tempered Glass</p> <p>Hardware: White Screen: TruScene , Full Screen</p> <p>Grille Style: No Grille Misc: None</p>


102	Kitchen	36 W 62 H		Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White Performance Calculator: PG Rating: 40 DP Rating: + 40 / - 40 Glass: All Sash: High Performance SmartSun Glass, No Pattern Hardware: White Screen: TruScene , Full Screen Grille Style: No Grille Misc: None
103	Living	32 W 66 H		Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White Performance Calculator: PG Rating: 40 DP Rating: + 40 / - 40 Glass: All Sash: High Performance SmartSun Glass, No Pattern Hardware: White Screen: TruScene , Full Screen Grille Style: No Grille Misc: None
104	Living	32 W 66 H		Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White Performance Calculator: PG Rating: 40 DP Rating: + 40 / - 40 Glass: All Sash: High Performance SmartSun Glass, No Pattern Hardware: White Screen: TruScene , Full Screen Grille Style: No Grille Misc: None
106	Kitchen	32 W 66 H		Window: Acclaim™ Casement Single , Left, Base Frame, Exterior White, Interior White Performance Calculator: PG Rating: 40 DP Rating: + 40 / - 40 Glass: All Sash: High Performance SmartSun Glass, No Pattern Hardware: White Screen: TruScene , Full Screen Grille Style: No Grille Misc: None
201	stairwell	36 W 62 H		Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White Performance Calculator: PG Rating: 40 DP Rating: + 40 / - 40 Glass: All Sash: High Performance SmartSun Glass, No Pattern , Tempered Glass Hardware: White Screen: TruScene , Full Screen Grille Style: No Grille Misc: None

202

Primary Bedroom

36 W

62 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White

Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40

Glass: All Sash: High Performance SmartSun Glass, No Pattern , Tempered Glass

Hardware: White

Screen: TruScene , Full Screen

Grille Style: No Grille


Misc: None

203

Primary Bedroom

36 W

62 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White

Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40

Glass: All Sash: High Performance SmartSun Glass, No Pattern

Hardware: White

Screen: TruScene , Full Screen

Grille Style: No Grille


Misc: Brickmould Rot , Sill Rot

204

Primary Bedroom

36 W

62 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White

Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40

Glass: All Sash: High Performance SmartSun Glass, No Pattern

Hardware: White

Screen: TruScene , Full Screen

Grille Style: No Grille


Misc: None

205

Primary Bathroom

36 W

62 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White

Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40

Glass: All Sash: High Performance SmartSun Glass, No Pattern

Hardware: White

Screen: TruScene , Full Screen

Grille Style: No Grille


Misc: None

206

Office

36 W

62 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White

Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40

Glass: All Sash: High Performance SmartSun Glass, No Pattern

Hardware: White

Screen: TruScene , Full Screen

Grille Style: No Grille

Misc: None

207 guest bedroom 32 W
66 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White
Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40
Glass: All Sash: High Performance SmartSun Glass, No Pattern
Hardware: White **Screen:** TruScene , Full Screen
Grille Style: No Grille **Misc:** None

208 guest bedroom 32 W
66 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White
Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40
Glass: All Sash: High Performance SmartSun Glass, No Pattern
Hardware: White **Screen:** TruScene , Full Screen
Grille Style: No Grille **Misc:** None

209 Bathroom 32 W
66 H



Window: Acclaim™ Double-Hung (DG) , 1:1, Slope Sill, Insert Frame, Traditional Checkrail, Exterior White, Interior White
Performance Calculator: PG Rating: 40 | DP Rating: + 40 / - 40
Glass: Sash 1: High Performance SmartSun Glass , No Pattern, Sash 2: High Performance SmartSun Glass, No Pattern, Tempered Glass
Hardware: White **Screen:** TruScene , Full Screen
Grille Style: No Grille **Misc:** None

WINDOWS: 14 PATIO DOORS: 0 ENTRY DOORS: 0 SPECIALTY: 0 MISC: 3




Renewal by Andersen is committed to our customers' safety by complying with the rules and lead-safe work practices specified by the EPA.



RENEWABLE, RECLAIMABLE, RESPONSIBLE — **FIBREX®**



FIBREX® — ENGINEERED FOR STRUCTURAL PERFORMANCE

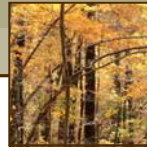


A SUPERIOR COMPOSITE

At a time when more and more industries are looking to alternative building materials, Andersen Corporation introduces Fibrex®, a revolutionary structural material composite technology that blends the very best attributes of thermoplastics and bio-fibers. Durable and versatile, you can count on Fibrex® material for strength, appearance and performance — in a wide variety of applications. Already in use for ten years in many Andersen® products, it performs extremely well in all weather and environmental conditions. Best of all, Fibrex® technology can utilize “reclaimed” wood fiber and vinyl from post production processes, helping to save on natural resources. Fibrex® is a strong cost-to-benefit option for your product needs.

FIBREX®

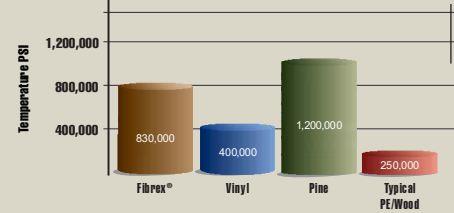




STIFFNESS

Modulus is the scientific term for a material's stiffness. The higher the number, the stiffer the material. The average modulus for Fibrex® is over twice the average for vinyl, making it a far more stable and rigid material. And though wood's average stiffness is higher, it is far less predictable than Fibrex®, since wood has natural variations such as grain, knots and moisture content.

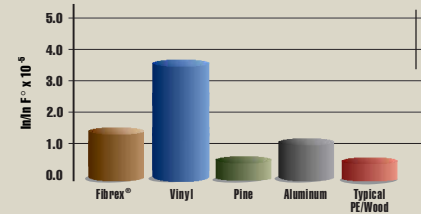
Stiffness



THERMAL EXPANSION

Thermal expansion is the degree to which a given material expands and contracts with changes in temperature. Pine has a very low thermal expansion rate. With a rate of 1.6, Fibrex®, like aluminum, expands and contracts very little. Vinyl, with a thermal expansion rate of 4.0, expands and contracts at a rate twice that of Fibrex®, resulting in bowing and cracking over time.

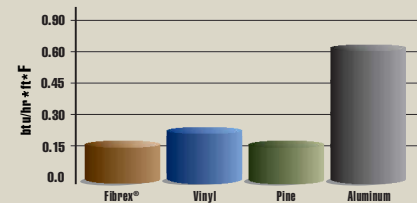
Coefficient of Thermal Expansion (CTE)



CONDUCTIVITY

Fibrex® has a very low thermal conductivity ratio. Its insulating properties can be put on par with pine or vinyl. Unlike aluminum, Fibrex® resists the transfer of heat or cold.

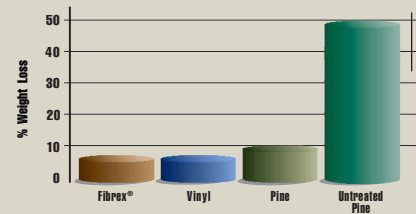
Thermal Conductivity



DECAY RESISTANCE

The special polymer formulations in Fibrex® surround, coat and fill the cell structure of each wood fiber in the manufacturing process, ensuring unsurpassed resistance to rot.

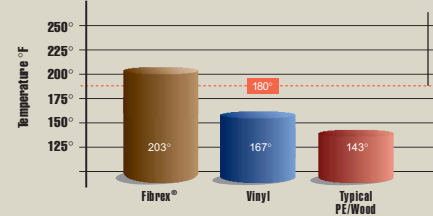
Decay Resistance



HEAT RESISTANCE

High temperatures can result in distortion. At high temperatures, vinyl can bow or sag. In tests, Fibrex® remains rigid and stable to a temperature of 93°C (199°F).

Heat Distortion Temperature



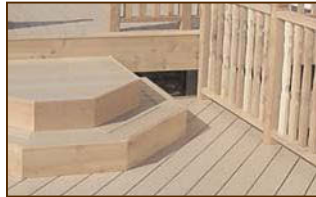


Fibrex® Properties

The design versatility of Fibrex® material is enhanced by its exceptional physical properties. Parts made from Fibrex have a high flexural and tensile modulus, low moisture absorption, a higher heat distortion temperature than rigid PVC and a low coefficient of thermal expansion.

Fibrex® material can be extruded or injection molded into functional components. Extruded profiles can be solid or hollow, machined and joined using mechanical fastening, thermal welding and vibratory weld tacking. Profiles can be extruded with a weatherable capstock, enabling color options and color fastness and allowing the surface appearance to be optimized for a specific application.

Fibrex has been found to be an exceptional material when used for siding, decking, railing, fencing, molding, trim, furniture and packaging, to name a few.



Fibrex® decking



Fibrex® window sill



Fibrex® extrusion

Fibrex® Mechanical Properties (Typical)

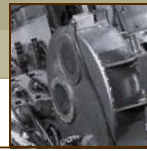
Measurement	ASTM	Units	Material Value
Tensile Modulus, 77° (25°C)	D3039	psi (MPa)	
Extrusion direction			950,000 (6,550)
Cross-extrusion direction			750,000 (5,200)
Tensile Yield Strength, 77° (25°C)	D3039	psi (MPa)	3,000 (21)
Tensile Strength (UTS), 77° (25°C)	D3039	psi (MPa)	
Extrusion direction			5,500 (38)
Cross-extrusion direction			3,800 (26)
Tensile Strain at Failure, 77° (25°C)	D3039	%	
Extrusion direction			1.3
Cross-extrusion direction			0.9
Poisson's Ratio	D630	—	0.342 @ 70°F 0.236 @ 160°F
Flexural Modulus, 77° (25°C)	D790	psi (MPa)	830,000 (5,700)
Compressive Modulus, 77° (25°C)	D695	psi (MPa)	571,000 (3,900)
Modulus of Rupture, 77° (25°C)	D790	psi (MPa)	10,000 (69)
Maximum Flexural Strain (E _{max})	D790	%	1.7
Impact Strength, Gardner, 77° (25°C)	D3029	inch•lbs (J)	5.0 (0.56)
0.1" sample thickness			
Izod Notched Impact, 77° (25°C)	D256	inch•lbs/inch (J/m)	7.0 (28)
Maximum Allowable Dynamic Stress	*	psi (MPa)	16,000 (110)
Extrusion Shrinkage	D3679	%	0.2
Specific Gravity	D792	—	1.4
Hardness, Rockwell "L", 77° (25°C)	D785	—	92
Hardness, Rockwell "M", 77° (25°C)	D785	—	66
Static Coefficient of Friction vs. Neolite std.	F1679-96	—	0.60 wet 0.85 dry
Extrusion direction			

Fibrex® Environmental Properties

Measurement	ASTM	Units	Material Value
Moisture Absorption	D570-84	%	0.9
Termite Resistance	—	Weight Loss (g)	
C. formosanus			0
R. flavipes			0
Fungal Decay	D1413		None
Moisture Expansion	D1037	inch/inch/%ΔMC*	1.14x10 ⁻³

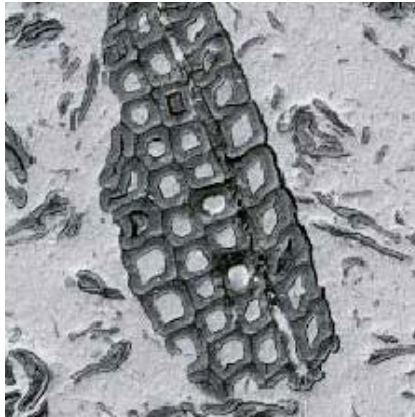
Fibrex® Thermal Properties

Measurement	ASTM	Units	Material Value
Heat Deflection Temperature, 264psi (1.82 MPa)	D648	°F (°C)	
66 psi (0.46 MPa)			173 (78) 221 (105)
Coefficient of Thermal Expansion	D696	inch/inch/°F (m/m/°C)	1.6x10 ⁻⁵ (2.9x10 ⁻⁵)
Thermal Conductivity	F433	Btu/hr•ft•°F (W/m•K)	0.1 (0.17)
Specific Heat	—	Btu/lb•°F (J/kg•K)	0.4 (1674)
Flash Ignition Temperature	D1929	°F (°C)	644 (340)
Self Ignition Temperature	D1929	°F (°C)	716 (380)
Flame Spread Index	E84-94		10
Smoke Developed Index	E84-94		580
Average Flame Spread Index	E162-94		22.73
Average Optical Density of Smoke	E662-94		
Flaming mode			472.32
Non-flaming mode			439.24
Average Time of Burn	D635-91	sec.	<5
Average Extent of Burn	D635-91	mm	<5
Final Oxygen Index	D2863	%volume	31.3

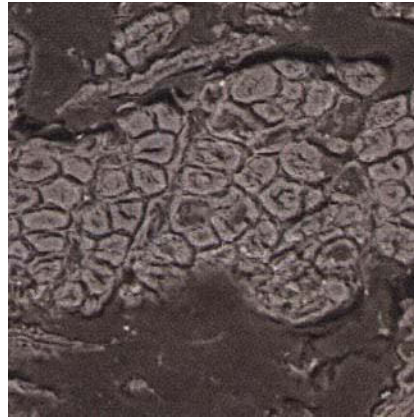


Fibrex® Material Advantage

Special polymer formulations surround and fill each wood fiber — ensuring top performance.



Fibrex®



Polyethylene Wood-Fiber Composite

Fibrex® Patents

5,205,102	6,210,792	5,985,429	5,827,607	5,486,553
6,357,197	6,122,877	5,981,067	5,773,138	5,441,801
6,346,160	6,054,207	5,948,524	5,695,874	5,406,768
6,342,172	6,015,612	5,932,334	5,539,027	
6,280,667	6,015,611	5,882,564	5,518,677	
6,265,037	6,004,668	D402,770	5,497,594	

*Additional patents pending

























