TURNKEY PORCH ENCLOSURES

KEEP YOUR PORCH. LOSE THE ELEMENTS.

REMOVABLE VINYL PANEL WIND LOAD EXEMPTION

Wind Load Classification Report

Oasis™ 4-Track Porch Enclosure System

Classification Under VRC Appendix AH (Patio Covers)
Applicability of VRC R301.2.1 Wind Design Load Provisions
to Removable, Non-Structural Vinyl Panels
Submitted under VCC Section 112.2

Revision C — November 2, 2026
Supersedes all earlier issues, including the May 26, 2026 issue

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1.0 Evaluation Subject

1.1 Product: Oasis™ 4-Track Porch Enclosure System, a removable, non-structural vinyl-panel porch enclosure.

1.2 Manufacturer: Turnkey Porch Enclosures, LLC, 1209 Admiral Street, Richmond, Virginia 23220. (804) 567-6543. turnkeyporch.com.

1.3 Issue: Whether the removable vinyl panels are subject to the wind design load provisions of VRC R301.2.1, Table R301.2.1(1), and Table R301.2.1(2), and how the system is operated and behaves in high wind.

1.4 Conclusion: The panels are removable, non-structural infill within an existing roofed porch classified under VRC Appendix AH (Patio Covers). They are not designed or represented to resist component-and-cladding wind pressures. In high wind the operable sashes are fully opened or removed (Section 5), which leaves the porch in the exposure condition of an open porch with a guard. Wind design under R301.2.1 applies to the existing porch structure, not to the removable panels.

1.5 This report is a manufacturer submittal under VCC Section 112.2 (Alternative Methods or Materials). It is not an ICC-ES Evaluation Report or an NRTL research report.

2.0 Evaluation Scope

Code / Section	Subject
VRC R301.2.1	Wind design criteria
VRC Table R301.2.1(1)	Component and cladding wind loads
VRC Table R301.2.1(2)	Height and exposure adjustment
VRC R202	Definition of hurricane-prone regions
VRC Appendix AH (AH101–AH106)	Patio Covers
VRC AH103.1	Enclosure walls: permitted infill materials and the 65 percent open or glazed area requirement
VRC AH106	Aluminum screen enclosures in hurricane-prone regions (applicability, Section 7)
VRC R602.10	Wall bracing (Section 6.5)
VCC Section 112.2	Alternative Methods or Materials
VCC Section 112.3	Documentation and Approval

3.0 Product Description

Attribute	Specification
Panel material	10 mil (0.010 in. / 0.254 mm) flexible vinyl glazing with integrated insect screen
Configuration	3 or 4 vertically sliding sashes per panel (a three-vent or four-vent panel) in aluminum extrusion tracks. All sashes are operable except the guard sash where a guard is required.
Operation	Operable sashes lower to stack at the bottom of the frame and lift out of the sash track without tools
Guard sash (fall protection only)	Where a guard is required, the innermost sash is the guard sash. The Vent Lock fixes it in its lowered position; it cannot be raised or removed. See the Guard and Fall Protection Performance Report, Rev C.
Structural role	Non-structural infill: no wind resistance and no lateral load transfer
High-wind requirement	Operable sashes fully opened or removed above 75 mph (Section 5.1)
Labeling	One decal per enclosure unit (Section 5.1.2). The decal is not placed on the guard sash.
Classification	VRC Appendix AH (Patio Covers): non-habitable, unconditioned outdoor living space
Not classified as	Fenestration, a structural wall, a sunroom, or permanent cladding

4.0 Appendix AH Classification

4.1 The system is installed between the existing columns and under the existing roof of a roofed residential porch. The porch is classified under VRC Appendix AH (Patio Covers) and remains non-habitable and unconditioned.

4.2 VRC AH103.1 permits patio cover enclosure walls to be enclosed with insect screening; approved translucent or transparent plastic not more than 0.125 in. (3.2 mm) thick; glass conforming to R308; or any combination of these. The Oasis™ flexible vinyl glazing is 10 mil (0.010 in. / 0.254 mm), well below the 0.125 in. limit, and qualifies under AH103.1(2) as approved translucent plastic.

4.3 AH103.1 requires the open or glazed area of the longer wall and one additional wall to be at least 65 percent of the area below a minimum of 6 ft 8 in. of each wall. Because the flexible vinyl glazing qualifies under AH103.1(2), it counts toward that area whether the sashes are closed, stacked, or removed. The project drawings show the open-area calculation for the longer wall and one additional wall.

5.0 High-Wind Operation and Behavior

This section is Turnkey's controlled statement of how the system is operated and behaves in high wind. Every current Turnkey document that describes wind behavior states this position consistently and refers to this section.

5.1 High-Wind Operation

5.1.1 Operable sashes shall be fully opened (lowered and stacked) or removed when winds are forecast to exceed 75 mph (34 m/s), or at the lower threshold or trigger set by the jurisdiction, such as issuance of a tropical storm or hurricane warning.

5.1.2 Each enclosure unit carries one decal, placed so that it is visible when the sashes are installed. The decal is not placed on the guard sash. The standard decal reads:

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Operable sashes SHALL be fully opened or removed when wind speeds exceed 75 mph (34 m/s).
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5.1.3 Where a jurisdiction prescribes decal wording, decal placement, or a lower threshold, the jurisdiction's requirement governs.

5.1.4 Where the jurisdiction requires it, the homeowner signs the High-Wind Operation Acknowledgment (Form TPE-HW-01), which commits the homeowner to the operating requirement in Section 5.1.1. The form follows the James City County affidavit model (Section 8.3) and is submitted with the permit application.

5.2 Pressure Relief if Sashes Are Left Closed

5.2.1 If sashes are left closed in a high-wind event, the flexible vinyl glazing deflects and disengages from the track before the enclosure can transfer wind load to the existing porch structure. The system is designed to relieve pressure, not to resist it.

5.2.2 Disengagement is a safeguard. It is not the operating condition and not a rated performance value. The operating condition in high wind is Section 5.1.

5.3 Opened (Stacked) Condition

5.3.1 When fully opened, the sashes stack at the bottom of the frame. They stay captured in their tracks and do not disengage.

5.3.2 The stack is one sash tall: 30 in. on a 99 in. four-vent enclosure. Above the stack, the opening is screened.

5.3.3 The stack sits below the 36 in. guard height that R312 requires on any porch more than 30 in. above grade, a zone in which solid guard infill is permitted. In the opened condition the porch therefore presents the wind exposure of an open porch with a guard.

5.4 Fall-Protection Configuration

5.4.1 Where a guard is required, the innermost sash of each panel is the guard sash. The Vent Lock fixes it in its lowered position, and it does not disengage.

5.4.2 The guard sash occupies the same position and height as the stack described in Section 5.3. With the operable sashes opened or removed, the wind exposure of a fall-protection installation is identical to the opened condition.

5.5 Height Limit

5.5.1 The stack and the guard sash do not extend more than 36 in. above the finished floor. A configuration in which either would exceed 36 in. is outside the scope of this report.

5.6 Summary

Condition	Vinyl left in the opening	Behavior	Comparable condition
Sashes opened (stacked)	Stack at the bottom of the frame: 30 in. on a 99 in. four-vent enclosure	Captured in the tracks	Open porch with a 36 in. guard
Sashes removed	None; screen only	Not applicable	Screened porch
Fall protection, operable sashes opened or removed	Guard sash, with the stack where present, in the same lower zone	Guard sash held by the Vent Lock; stack captured	Open porch with a code-required 36 in. guard
Sashes left closed (not the operating condition)	Full opening	Flexible vinyl glazing deflects and disengages to relieve pressure	Not applicable; Section 5.1 governs

Table 5.6 High-Wind Conditions

6.0 Why R301.2.1 Component-and-Cladding Loads Do Not Apply to the Panels

6.1 VRC R301.2.1 establishes wind design criteria for permanent building components (wall and roof coverings, curtain walls, glazed openings, skylights, and doors) that must resist design wind pressures without failure for the life of the structure. Table R301.2.1(1) sets their design pressures and Table R301.2.1(2) adjusts them for height and exposure.

6.2 The Oasis™ panels are none of these. They are removable, non-structural infill, not designed or represented to resist design wind pressure. Their operating condition in high wind is opened or removed (Section 5.1).

6.3 The existing porch structure (columns, beams, roof framing, connections, and foundations) remains responsible for the wind, snow, and live loads of VRC Chapter 3 as originally designed. The enclosure adds no structural resistance, does not increase design wind loads on any component, does not alter the load path, and does not modify the building's lateral force-resisting system.

6.4 Wind design under R301.2.1 therefore applies to the existing porch structure. Tables R301.2.1(1) and R301.2.1(2) are not applied to the removable panels.

6.5 Wall bracing (R602.10). Wall bracing applies to the braced wall lines of a building. The panels are installed in the open bays between existing porch columns. They add no braced wall line, are not braced wall panels, and add no lateral demand. In high wind the porch is in the condition described in Section 5.

7.0 Applicability of Appendix AH Section AH106

7.1 AH106 is titled *Special Provisions for Aluminum Screen Enclosures in Hurricane-Prone Regions*. Its scope (AH106.1) limits it to screen enclosures in hurricane-prone regions.

7.2 VRC R202 defines hurricane-prone regions as areas on the U.S. Atlantic Ocean and Gulf of Mexico coasts where the ultimate design wind speed, V_{ult}, is greater than 115 mph, together with Hawaii, Puerto

Rico, Guam, the Virgin Islands, and American Samoa.

7.3 Where the jurisdiction's adopted ultimate design wind speed is 115 mph or less, the site is not in a hurricane-prone region and AH106, including AH106.4, does not apply. The project cover letter states the jurisdiction's adopted design wind speed and its source, such as the county's published design criteria.

7.4 Where AH106 applies, the installation is outside the scope of this report and requires project-specific engineering.

8.0 Jurisdictional Precedent

Other jurisdictions recognize that removable vinyl porch panels, labeled for removal at a stated wind speed, are not subject to component-and-cladding wind loads. These provisions are cited as precedent for the reviewing official. They are not adopted code in Virginia. Copies are attached as Exhibits A through C.

8.1 North Carolina Residential Code, R301.2.1 Exception

The North Carolina Residential Code (2018 edition and later) includes the following exception (Exhibit A):

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Openings for exterior balconies, decks, or porches under roofs enclosed with screen or
removable vinyl or acrylic wind break panels shall be exempt from the loads listed in Table
R301.2(2) and the height and exposure factors listed in Table R301.2(3). Vinyl and acrylic
glazed panels shall be removable. Removable panels shall be identified as removable by a
decal. The identification decal shall state "Removable panel SHALL be removed when wind
speeds exceed 75 mph (34 m/s)."
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The table numbers in the quotation are North Carolina's numbering and are reproduced as published.

8.2 Florida Building Code, Residential

FBC-Residential R301.2.1.1.1.1 permits vinyl, tempered glass, and acrylic panels, provided they are removable and carry a decal stating "Removable panel SHALL be removed when wind speeds exceed 75 mph (34 m/s)." The decal must be visible when the panel is installed (Exhibit B).

8.3 James City County, Virginia

James City County, which operates under the Virginia Uniform Statewide Building Code, permits vinyl patio enclosure panels in non-habitable spaces when the permit application includes a homeowner affidavit. The affidavit commits the owner to remove and store the panels on issuance of a tropical storm or hurricane warning, or in any high-wind event exceeding 65 mph (Exhibit C). Form TPE-HW-01 follows this model.

8.4 Virginia Code Change Proposal RB301.2.1-24

Turnkey Porch Enclosures submitted proposal RB301.2.1-24 to DHCD in the 2024 code development cycle. The proposal adds an exception to R301.2.1 based on the North Carolina provision. It is cited only to show that the issue has been raised at the state level and is not relied on as code. Compliance under the current code is demonstrated through the Appendix AH classification and VCC Section 112.2.

8.5 Precedent Summary

Jurisdiction	Instrument	Requirement	Threshold
North Carolina	NC Residential Code, R301.2.1 exception	Removable panels; decal	75 mph
Florida	FBC-Residential R301.2.1.1.1.1	Removable panels; decal	75 mph
James City County, VA	Building official policy (USBC)	Homeowner affidavit; non-habitable space	65 mph or storm warning
Virginia (DHCD)	Proposal RB301.2.1-24	Proposed exception (not relied on)	75 mph (proposed)

Table 8.5 Jurisdictional Precedent Summary

8.6 The precedent decals require removal. The Oasis™ standard decal (Section 5.1.2) requires the sashes to be fully opened or removed, because the opened condition presents the exposure described in Section 5.3. Where a jurisdiction prescribes decal wording or placement, that requirement is used.

9.0 Scope Limitations

This report addresses wind load classification and high-wind operation only. It does not:

- Certify or modify the existing porch structure, which must independently satisfy VRC Chapter 3
- Address guard or fall protection performance; see the Guard and Fall Protection Performance Report, Rev C
- Convert the enclosed space to habitable or conditioned space
- Claim wind resistance for the vinyl panels, which are non-structural and are opened or removed in high wind
- Cover installations where AH106 applies (Section 7.4)
- Constitute an ICC-ES Evaluation Report or NRTL research report

10.0 Conditions of Use

10.1 The removable vinyl panels of the Oasis™ 4-Track system are exempt from the VRC R301.2.1 component-and-cladding wind design load provisions when all of the following conditions are met:

10.1.1 The enclosure is installed within an existing roofed porch classified under VRC Appendix AH.

10.1.2 The space remains non-habitable and unconditioned.

10.1.3 The open or glazed area of the longer wall and one additional wall meets the 65 percent requirement of AH103.1, as shown on the project drawings.

10.1.4 All operable sashes can be fully opened (stacked) or removed. Where a guard is required, the guard sash is installed per the Guard and Fall Protection Performance Report, Rev C.

10.1.5 Each enclosure unit carries one decal per Section 5.1.2, or the jurisdiction's prescribed wording and placement. The decal is not placed on the guard sash.

10.1.6 Where the jurisdiction requires it, the homeowner has signed Form TPE-HW-01.

10.1.7 The stack and the guard sash do not extend more than 36 in. above the finished floor (Section 5.5).

10.1.8 The jurisdiction's adopted ultimate design wind speed is 115 mph or less, as stated in the project cover letter (Section 7).

10.1.9 The existing porch structure independently satisfies all VRC Chapter 3 structural provisions.

10.1.10 Installation complies with the manufacturer's installation instructions.

11.0 Report Closure

This report is submitted in support of permit review under VCC Section 112.2. The complete wind load classification package includes:

- Cover letter stating the jurisdiction's adopted ultimate design wind speed and its source
- This Wind Load Classification Report, Rev C, with Exhibits A through C
- Guard and Fall Protection Performance Report, Rev C, with the Engineer of Record certification letter, where the porch floor is more than 30 in. above grade
- Turnkey Installation Instructions and Attachments A through D
- High-Wind Operation Acknowledgment (Form TPE-HW-01), where the jurisdiction requires it
- Project drawings showing panel locations and geometry, the guard sash and stack heights, the fall rail and bracket placement where applicable, decal locations, porch floor height above grade, and the AH103.1 open-area calculation

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For:

Authority Having Jurisdiction
Plan Review

End of Report. Prepared by Turnkey Porch Enclosures, LLC. This report addresses wind load classification and high-wind operation only and is jurisdiction-neutral under the 2021 Virginia Residential Code. It does not constitute an ICC-ES Evaluation Report or NRTL certification. Rev C supersedes all earlier issues.

Exhibit A — North Carolina Residential Code, R301.2.1 Exception

Source: North Carolina State Building Code: Residential Code, R301.2.1 (North Carolina amendment), 2018 edition and later.

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Openings for exterior balconies, decks, or porches under roofs enclosed with screen or
removable vinyl or acrylic wind break panels shall be exempt from the loads listed in Table
R301.2(2) and the height and exposure factors listed in Table R301.2(3). Vinyl and acrylic
glazed panels shall be removable. Removable panels shall be identified as removable by a
decal. The identification decal shall state "Removable panel SHALL be removed when wind
speeds exceed 75 mph (34 m/s)." Decals shall be placed such that the decal is visible when
the panel is installed.
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Significance

North Carolina has adopted this exception as code in a state that includes hurricane-prone coastal regions. Removable vinyl panels identified by a removal decal are exempt from component-and-cladding loads and from height and exposure factors.

Exhibit B — Florida Building Code, Residential, R301.2.1.1.1.1

Source: Florida Building Code, Residential, R301.2.1.1.1.1.

The provision permits vinyl, tempered glass, and acrylic panels, provided the panels are removable and are identified by a decal stating "Removable panel SHALL be removed when wind speeds exceed 75 mph (34 m/s)." The decal must be visible when the panel is installed.

Significance

Florida, whose wind design requirements are among the most demanding in the United States, accepts removable panels with the same 75 mph removal decal requirement used in North Carolina.

Exhibit C — James City County, Virginia: Vinyl Patio Enclosure Panels

Source: James City County Building Safety and Permits Division. Policy issued by the James City County Building Official. Reproduced below.

Vinyl Patio Enclosure Panels

Permit applications including the installation of vinyl patio enclosure panels (i.e. EZE-Breeze) shall only be used for non-habitable spaces, unless otherwise approved by the James City County Building Official. The location where the panels are installed is not to be glazed or closed in by walls without the issuance and approval of a new permit and a full braced wall analysis. It is the responsibly of the home owner to verify the adequacy of the existing structure. The panels must be removed and properly stored at the issuance of a tropical storm, hurricane warning or any high wind event that exceeds 65 mph.

Signature_____ Date_____

James City County permitting policy, as issued

Key Provisions

- Vinyl patio enclosure panels are permitted for non-habitable spaces.
- The location is not to be glazed or closed in by walls without a new permit and full braced wall analysis.
- Panels must be removed and properly stored at the issuance of a tropical storm or hurricane warning, or in any high-wind event exceeding 65 mph.
- The homeowner is responsible for verifying the adequacy of the existing structure.

Significance

James City County operates under the same Virginia Uniform Statewide Building Code that applies statewide. Its building official permits removable vinyl patio enclosure panels in non-habitable spaces on the basis of a signed homeowner removal commitment, without wind design load analysis of the panels. Form TPE-HW-01 follows this model.