ClimaCLEAR™—All Glass Single Track Sliding System for Weather Protection

Control Outdoor Elements Transparently

NanaWall ClimaCLEAR is the only frameless all glass individual panel sliding system specifically engineered for transparent weather protection. Patent pending, non-thermally broken single pane, ClimaCLEAR has been independently tested and rated, making it the choice for flexible space management solutions for outdoor spaces for both residential and commercial applications.

ClimaCLEAR allows for maximum transparency with no vertical stiles providing natural daylighting, open views, and a clean, modern appearance making it suitable for all design styles. Whether the system is open or closed, it virtually disappears from sight. However, when the wall is closed, the beauty of an all-glass aesthetic is realized with the added benefit of weather protection and acoustical privacy.

In moderate climates, ClimaCLEAR can be used to create an indoor/outdoor lifestyle in living rooms, dining rooms, and kitchens.

In colder climates, extend the seasonal enjoyment of outdoor patios, three season rooms, or porches with ClimaCLEAR frameless glass walls. Create a transparent shelter from the elements without inhibiting the connection to the outdoors while also providing protection for outdoor furniture.

In commercial settings or sport venue applications, ClimaCLEAR allows for maximum viewing and unobstructed sightlines even when closed.

Transparent Vertical Weather Seals

Standard between all sliding panels and single action swing panels are super clear vertical seals to seal against wind driven rain and to reduce air infiltration. The seals virtually disappear from sight. Light transmittance (LT) of the weather seals has been independently tested and rated for 75% clarity and luminosity.

Patent Pending Panel Interlocks to Help Keep the Weather Out

Proprietary male/female panel interlocks at the top and bottom rails are designed to keep the weather out. Panel floor bolts are foot activated effectively locking the panel into place without the need to kneel down. These foot activated floor bolts have bumpers to avoid metal-to-metal contact.

Horizontal Dual Sided Brush Seals

All horizontal continuous door rails come standard equipped with double fin brush seals on both sides, top and bottom, for weather protection.

ADA Compliant Floor Track with Engineered Water Drainage System

ClimaCLEAR comes standard with a recessed low profile saddle sill that provides an engineered water management system. Weep holes for drainage by others are needed to inhibit water intrusion. The sill, with adjustable floor sockets, is ADA compliant.

Single Action Swing Panel Attached to the Side Jamb Intelligent Rollers for Single Hand Operation

The unique “intelligent” rollers and guide technology ensure easy, trouble-free, single hand operation for moving individual panels one at a time. The rollers are designed using hardened encapsulated steel ball bearings with glass fiber reinforced polyamide wheels with memory effect for quiet and smooth operation. Furthermore, polyamide bumpers are located on the side of the carrier to avoid metal-to-metal contact of the carriers inside the track.

Single Track Individual Panel Sliding System for Limitless Layout Flexibility

Offering complex design flexibility, the single track individual panel design is able to create an unlimited span of top-hung panels for straight openings of any size. No “train station” effect from multiple floor tracks.

Security in an All Glass System

Structural integrity of the system is achieved through the combination of strong rollers, the clamping of the 1/2" (12 mm) monolithic glass, and through panel locking. Each closed panel of ClimaCLEAR can be securely locked in place. The system has passed forced entry requirements.

4 1/8" Continuous Rail for Outstanding Aesthetics

The ClimaCLEAR system comes standard with a narrow 4 1/8" (104 mm) continuous top and bottom horizontal rail allowing for a beautiful aesthetic and maximum glass.

Customizable Stacking Options for Space Management

To optimize space management or to solve unique design challenges, stacking options and minimal parking bays can be designed with total customization. See nanawall.com/resources/climaclear/configurations/standard for animations of sample stacking concepts.

Single Action Swing Panel Attached to the Side Jamb for Easy Egress

For easy access, ClimaCLEAR configurations come standard with a single action swing panel equipped with a top door closer at the side jamb. To meet the needs of traffic patterns, also available is a single action swing panel with top door closer at both ends of the system. The swing panel with offset hinge allows for a maximum 150° inswing or 110° outswing and has been commercially tested to 500,000 opening and closing cycles. To meet ADA requirements, an acrylic chamfer rail is available to maintain the consistent glass line with adjacent panels.

Narrower Swing Panel Attached to the Side Jamb for Compact Stacking

To meet the needs of designs requiring more compact parking bays, the single action swing panels can be as narrow as 1' 8" (500 mm) to accommodate space/layout requirements. These non-entry single action swing panels, attached to the side jamb, are equipped with a standard locking feature on the top and bottom rails. A full 180° panel swing is possible.

Glazing Options

Standard glass supplied is 1/2" (12 mm) tempered. All vertical edges of the glass panels come polished. To reduce glass stress, glass is clamp installed to the rail for equal distribution of weight.

Also available is laminated glass for safety, security, acoustical separation, and/or UV protection in areas with lower structural requirements. Special glazing options include acoustical laminated glass 1/2" (13 mm) with a double interlayer achieving a unit STC 34 and OITC 28 and for stadium use, laminated glass 9/16" (13.5 mm) with a quadruple interlayer.

Other options including low iron, frosted, tinted, and white glass are possible.

Tall Heights and Wide Widths

Panels are available up to 10' 6" (3200 mm) in height, dependent on windload requirements, and up to 4' 1" (1250 mm) in width. Single action swing panels are available up to 3' 7" (1100 mm) in width. The number of panels in a system is unlimited.

Please confirm with local codes on height limits with 1/2" (12 mm) thick glass.

In tight stacking conditions where a swing door is not required, a minimal 1' 8" (500 mm) swing panel is available.

Swing Panel Hardware Options:

Reverse Tubo200

Standard to the swing panel is the Reverse Tubo200 brushed stainless steel finish handle/locking system with the handle starting at hand height and extending up to the top rail. Reverse Tubo200 integrates a locking mechanism with a full mortise cylinder lock, with thumb turn operation from inside and key operation from outside. At the bottom rails, a full mortise cylinder with key/key will be provided.

Push/ Pull Handles

ClimaCLEAR can also be configured with custom made brushed stainless steel finish door pull options with built-in bumpers to protect against metal-to-glass contact.
Other finish options, such as anodized or powder coated RAL colors, are also available (contact NanaWall for details).
For swing panels with push/pull handles, a surface mounted locking box with crank handle will be added at the top rail and the bottom rail will be outfitted with a half mortise cylinder or an optional foot activated floor bolt.

Also available is a push plate with pull handle option.
If requested, NanaWall Systems will also prep the glass to accept door pulls provided by others in order to match project specific designs.

Door Closers

For single action end panels with offset hinges hinged to the side jamb, a top door closer with hold open function is provided. Single action swing panels are limited by door closer to 150° door inswing or 110° outswing.

Finish Options for Head Track, Door Rails, Side Jambs, and Sill

Available standard door rail, head track, and side jamb finish is clear anodized. Options include: brushed anodized, dark bronze anodized, and black anodized. Custom colors and standard RAL colors are also an available.

The low profile saddle sill is available either in a clear or dark bronze anodized finish.

Matching End Caps

For added aesthetic value, end caps will be in coordinating colors.

Performance Results

ClimaCLEAR

TYPE OF TEST	TESTING RESULTS
Air Infiltration ① ASTM E-283	@ 1.57 psf (75 Pa): 0.46 cfm/ft²
Water Penetration ① ASTM E-331 & E-547	**No uncontrolled water entry** ① @ 3 psf (150 Pa) Subject to the following adaptations of the sill in the field by others: 1. Drill weep holes through the bottom of the inner channel and drill weep holes from the middle channel to the exterior bottom hollow in sill (about one 3/8" weep hole per panel and one at each end of the sill). 2. Drill weep holes through the lower front face of the sill to the bottom hollow in sill (3/8" weep hole per panel). 3. Drill 1/4" weep holes in the sill insert every 8" alternating between the inside and outside. Please note that due to the varying site requirements and conditions, these sills will not be prepared for drainage by NanaWall. If this drainage system is desired, we recommend that qualified professionals construct this system on the project site strictly in accordance with instructions provided by NanaWall and in accordance with good waterproofing techniques, if drain connections are not made or not possible, unit may leak with wind driven rain.
Structural Load Deflection ① ASTM E-330 with 1/2" (12 mm) tempered glass **Contact NanaWall for higher structural design windloads with thicker glass.** *Note that the structural test pressures were 50% higher than the design pressures.*	**DESIGN PRESSURE** Positive: @ 30 psf (1436 Pa) Negative: @ 30 psf (1436 Pa) Panel Height: 8' 4" (2540 mm) *Contact NanaWall for design windloads charts for other panel sizes.*
Forced Entry Resistance ① AAMA 1304	Pass
Operation / Cycling Performance ① AAMA 920	Swing panel 500,000 cycles: Pass
Acoustical Performance ASTM E-90 & E-1332	STC 34 OITC 28 with sound enhanced laminated glass

① Excerpts of results of four panel unit size 12' 0" W x 8' 8" H (3676 mm x 2642 mm) with three sliding panels and an end swing panel tested by Architectural Testing, Inc., Fresno, CA, an independent testing laboratory in November 2016.

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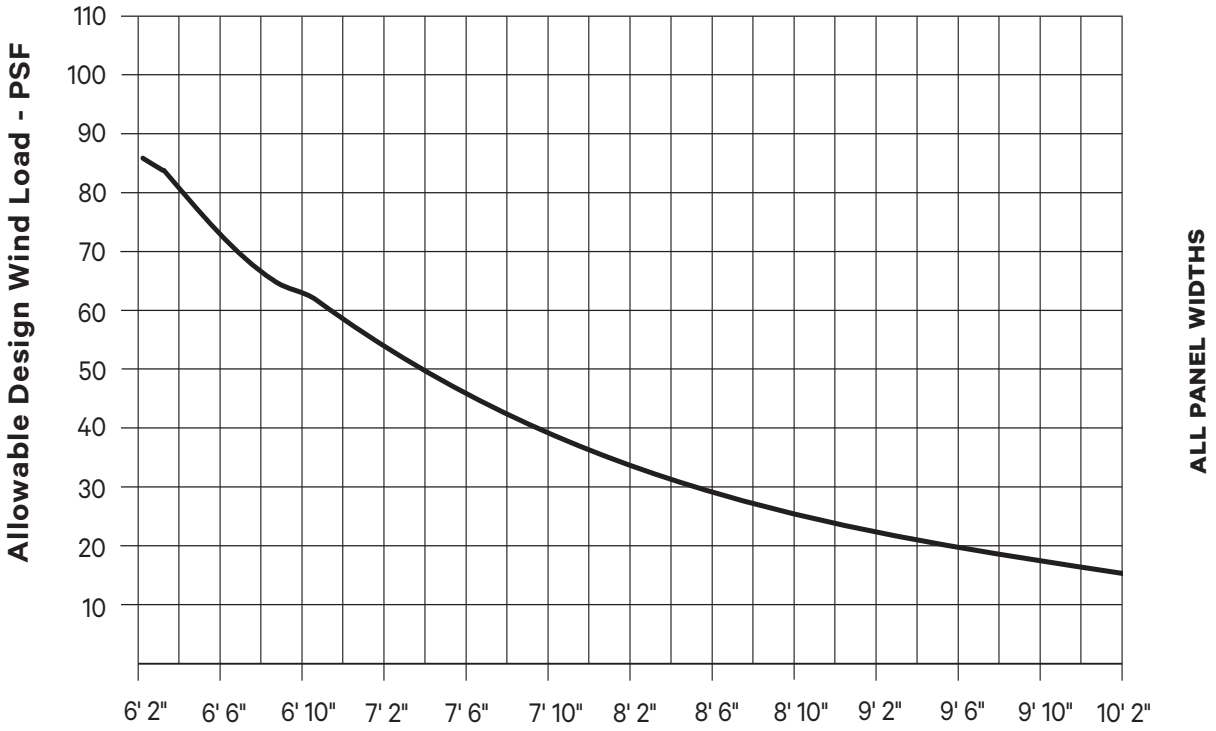
DESIGN WINDLOAD CHART - CLIMACLEAR

Applies to Both Positive and Negative Design Pressures

(In Accordance with Allowable Stress Design (ASD) Design Pressures*)

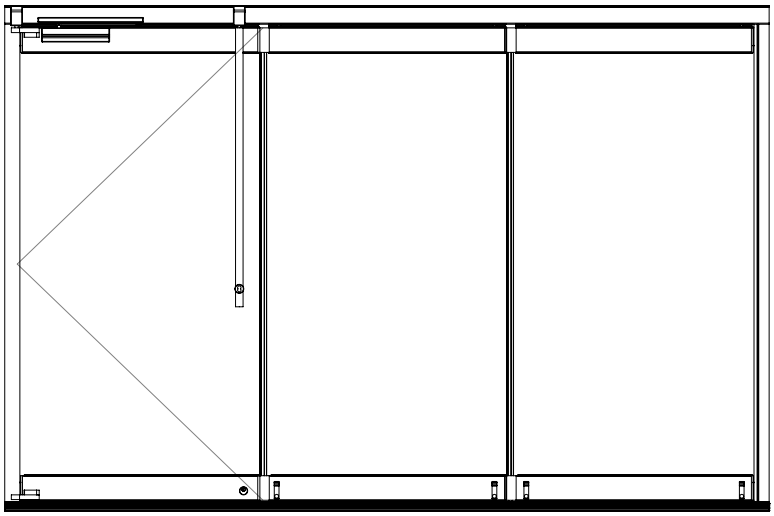


ClimaCLEAR with 1/2" (12 mm) Tempered Glass

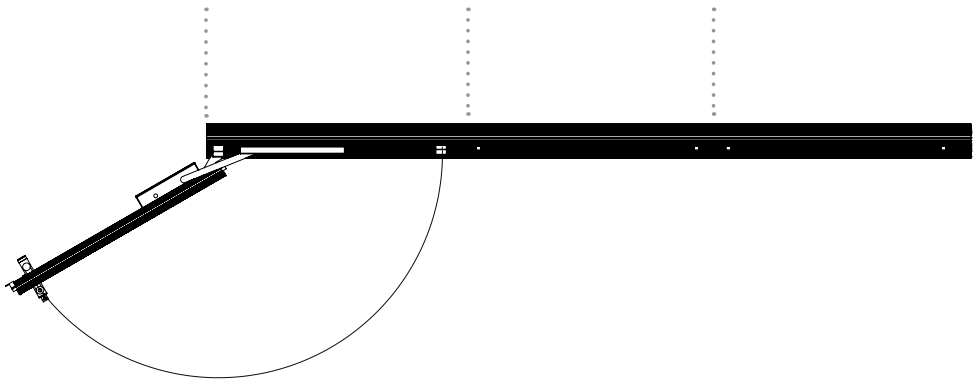
Design Windload Chart (Derived from both Glass Strength and Deflection Comparative Analysis).
Both Positive and Negative Design Pressures, Test Panel Height: 8' 4"
Please note that some jurisdictions may limit the use of these charts or may not accept them at all. Design pressures and/or sizes may be restricted to what was tested. This chart is only applicable for units with referenced NanaWall supplied locking.

* If the project design pressures have been calculated in accordance with Ultimate Design Wind Speed (ULT), then these design pressures have to be multiplied by a factor of 0.6 to obtain the equivalent ASD design pressures shown in this chart.

Maximum Size Chart for ClimaCLEAR



MAXIMUM PANEL SIZES WITH GLASS THICKNESS OF 1/2" (12 MM)	Single Action Swing Panel with Top Door Closer and Offset Hinge	Sliding Panel	Sliding Panel
Maximum Unit Height	10' 6" (3200 mm)	10' 6" (3200 mm)	10' 6" (3200 mm)
Maximum Panel Width	3' 7" (1100 mm)	4' 1" (1250 mm)	4' 1" (1250 mm)
Minimum Panel Width	1' 8" (500 mm)	1' 8" (500 mm)	1' 8" (500 mm)



The individual panels can also be of differing widths.

Maximum sizes for 1/2" (12 mm) as shown is per Glass Association of North America (GANA) recommendations.

Applicable codes and/or structural requirements may limit the maximum sizes possible to be less than what NanaWall allows.

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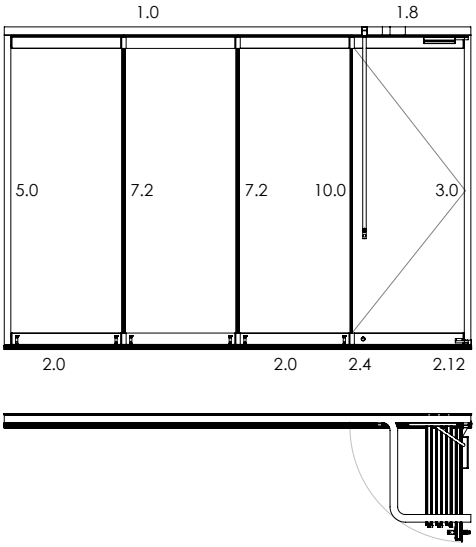
Elevation Drawings and plan views of typical possible stacking concepts.

Please see referenced cross-section details. As there can be other stacking possibilities, please submit your ideas and sketches to NanaWall Systems for evaluation. If needed, NanaWall Systems can provide a 3D Conceptual Drawing to help in the design / development process. **Please note that the number of panels in a system are unlimited.**

Note: As illustrated in Concept 8 and Concept 10, all other concepts are available with single action end panels on both ends.

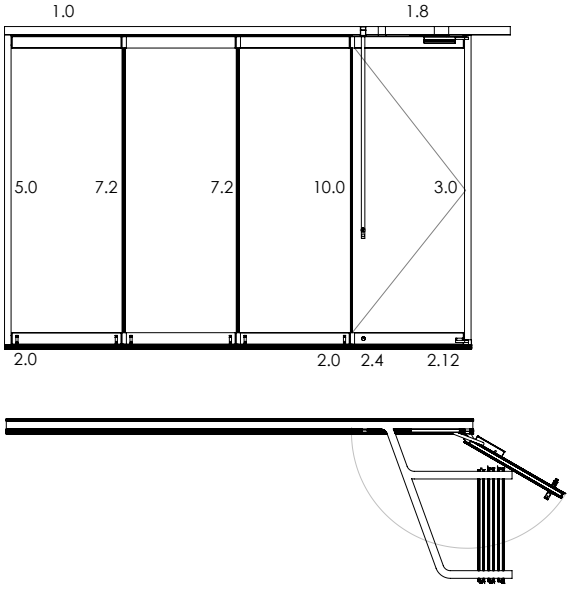
Concept 1/A

Perpendicular stacking in the opening with single action swing panel with top door closer and offset hinge



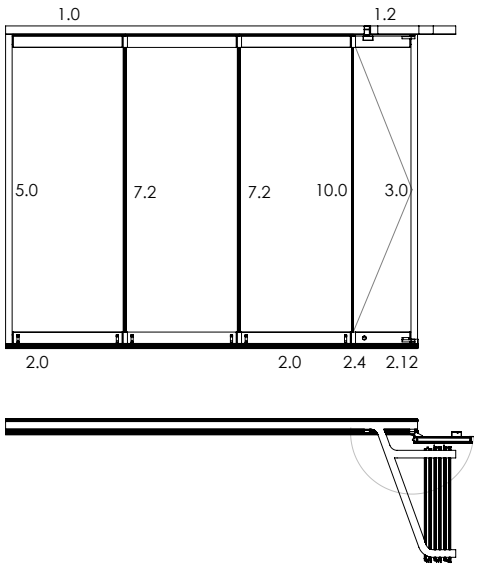
Concept 2/I

Perpendicular stacking outside the opening with single action swing panel with top door closer and offset hinge



Concept 3/I

Perpendicular stacking outside the opening with single action non-entry swing panel with offset hinge



Elevation Drawings and plan views of typical possible stacking concepts.

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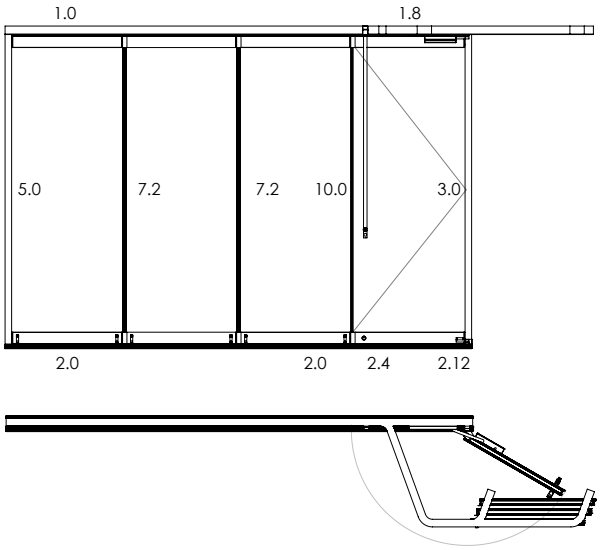
Note: As illustrated in Concept 8 and Concept 10, all other concepts are available with single action end panels on both ends.

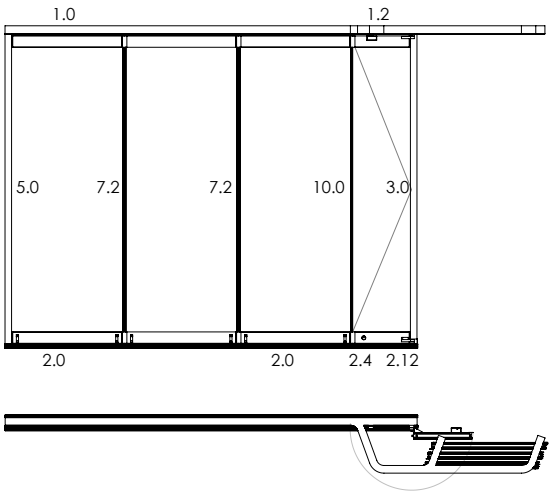
Concept 4/E

Parallel stacking outside the opening with single action swing panel with top door closer and offset hinge



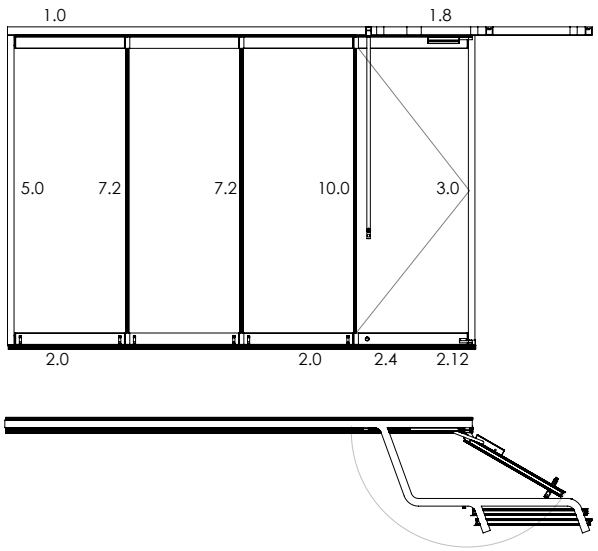
Concept 5/E

Parallel stacking outside the opening with single action non-entry swing panel with offset hinge



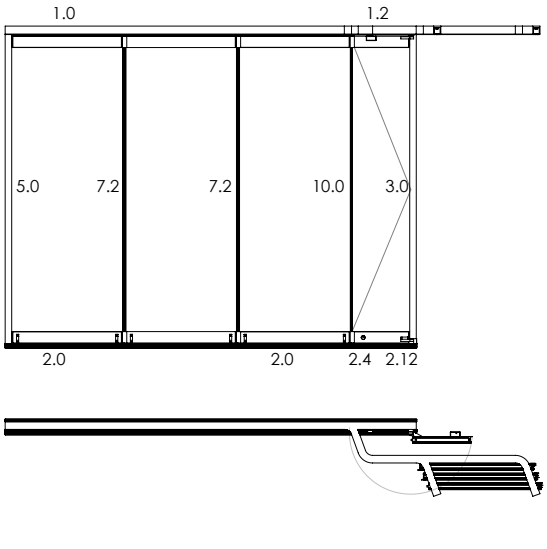
Concept 6/G

Parallel stacking outside the opening with single action swing panel with top door closer and offset hinge



Concept 6a/G

Parallel stacking outside the opening with single action non-entry panel with offset hinge



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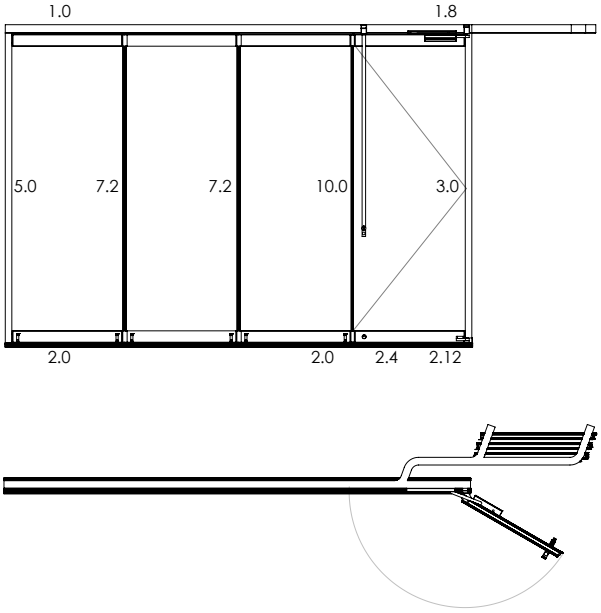
Elevation Drawings and plan views of typical possible stacking concepts.

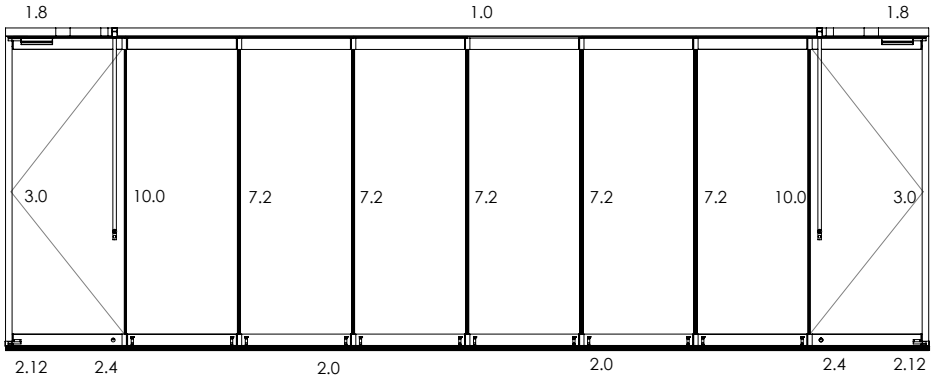
Please see referenced cross-section details. As there can be other stacking possibilities, please submit your ideas and sketches to NanaWall Systems for evaluation. If needed, NanaWall Systems can provide a 3D Conceptual Drawing to help in the design / development process. **Please note that the number of panels in a system are unlimited.**

Note: As illustrated in Concept 8 and Concept 10, all other concepts are available with single action end panels on both ends.

Concept 7/G

Parallel stacking to one side of the opening with single action swing panel with top door closer and offset hinge to the other side





Concept 8/A

Perpendicular stacking in the opening with single action swing panel with top door closer and offset hinge at both ends

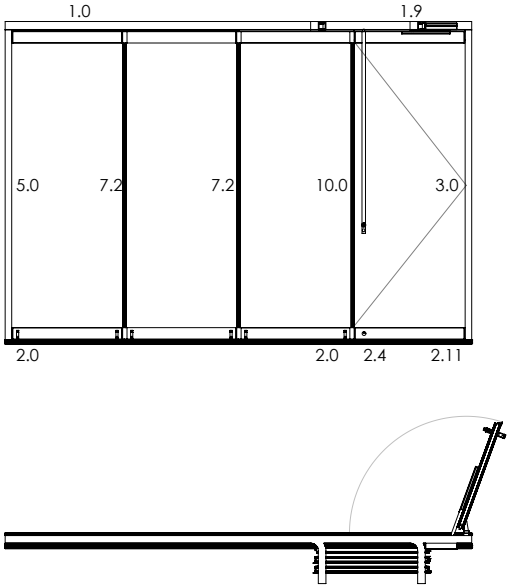
Elevation Drawings and plan views of typical possible stacking concepts.

Please see referenced cross-section details. As there can be other stacking possibilities, please submit your ideas and sketches to NanaWall Systems for evaluation. If needed, NanaWall Systems can provide a 3D Conceptual Drawing to help in the design / development process. **Please note that the number of panels in a system are unlimited.**

Note: As illustrated in Concept 8 and Concept 10, all other concepts are available with single action end panels on both ends.

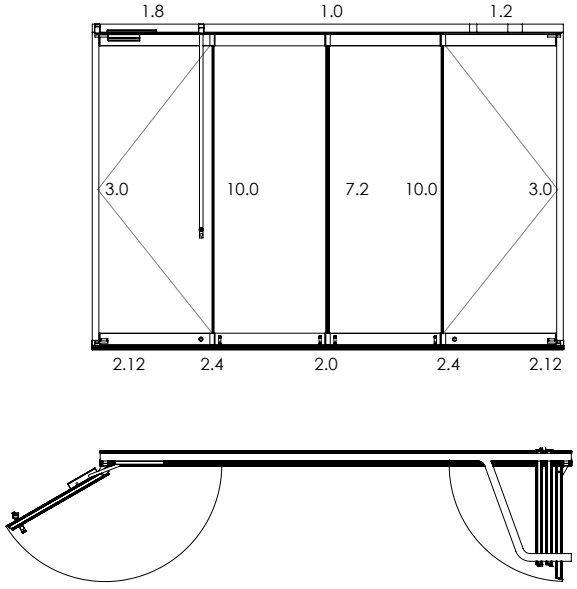
Concept 9

Parallel stacking within the opening with single action swing panel with top door closer and offset hinge to the opposite side



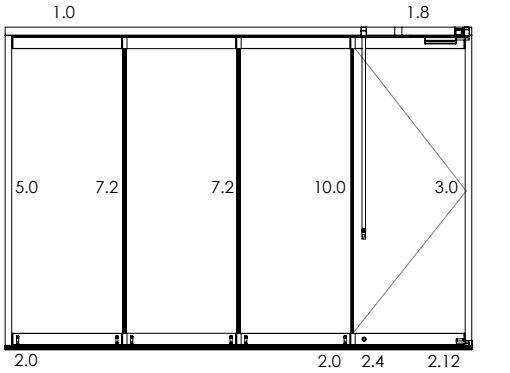
Concept 10/A

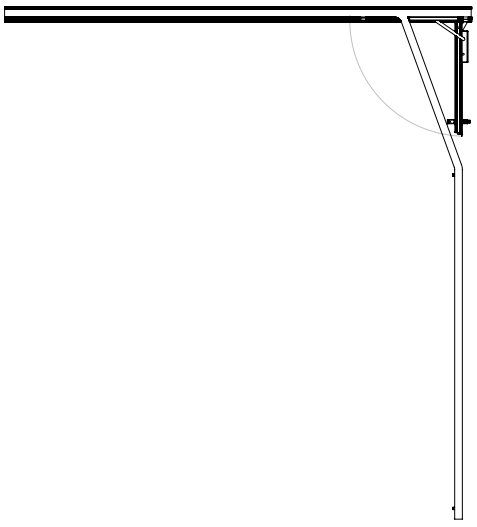
Perpendicular stacking in the opening with single action swing panel with top door closer and offset hinge at the left and a non-entry swing panel at the right



Concept 11

Perpendicular stacking outside the opening along the wall with single action swing panel with top door closer and offset hinge





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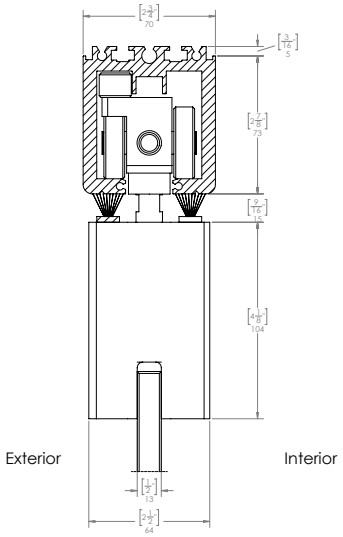
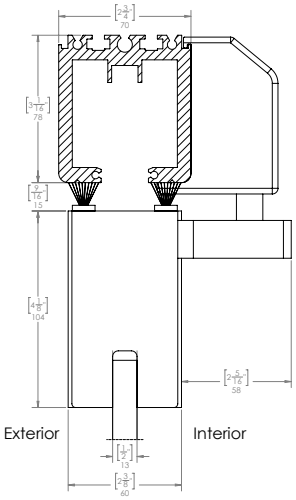
Details are shown with 1/2" (12 mm) thick glass

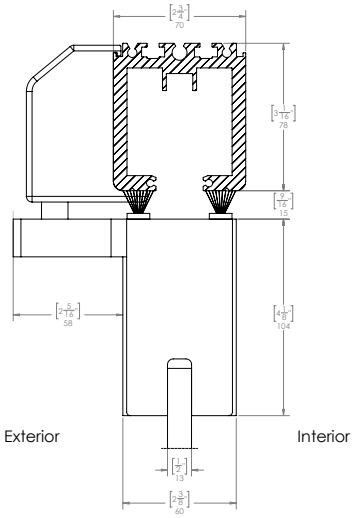
Detail 1.0
Head Profile -
Sliding Panel



Detail 1.2
Head Profile - Non-Entry
Single Action Swing Panel
with Offset Hinge (Inswing)



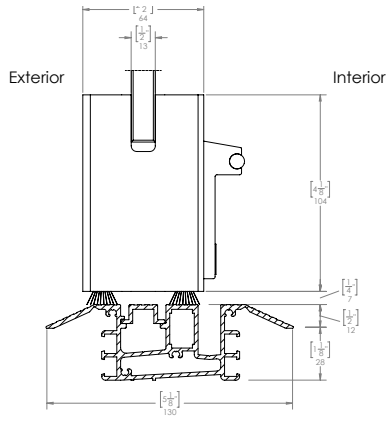
Detail 1.3
Head Profile - Non-Entry
Single Action Swing Panel
with Offset Hinge (Outswing)



FRAME HEIGHT

Detail 2.0
Bottom Profile - Sliding Panel
with Foot Activated Floor Bolt

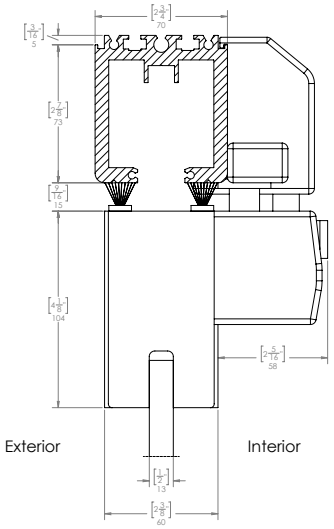
(Weep holes and drainage by others necessary for water rating.)



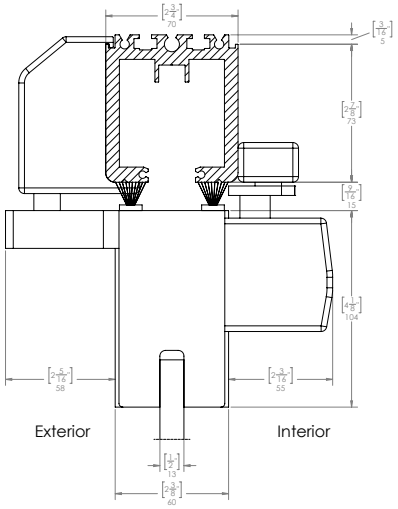
Details are shown with 1/2" (12 mm) thick glass

FRAME HEIGHT

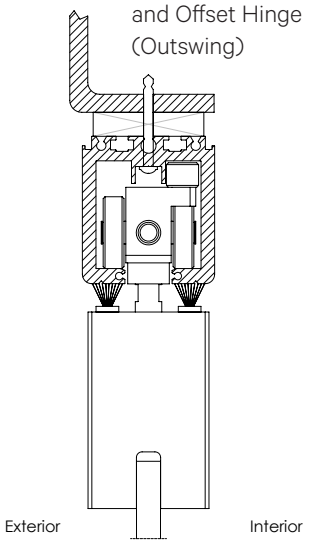
Detail 1.8
Head Profile - Single Action Swing Panel with Top Door Closer and Offset Hinge (Inswing)



Detail 1.9
Head Profile - Single Action Swing Panel with Top Door Closer and Offset Hinge (Outswing)

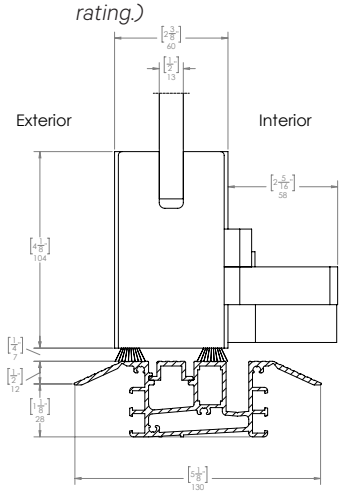


Detail A24
Head Profile - Single Action Swing Panel with Top Door Closer and Offset Hinge (Outswing)



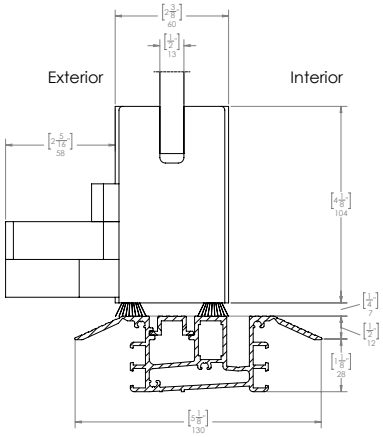
Detail 2.12
Bottom Profile - Single Action Swing Panel with Offset Hinge (Inswing)

(Weep holes and drainage by others necessary for water rating.)



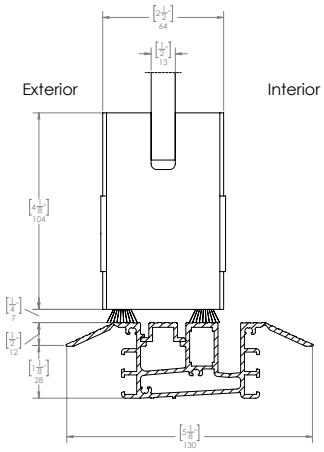
Detail 2.11
Bottom Profile - Single Action Swing Panel with Offset Hinge (Outswing)

(Weep holes and drainage by others necessary for water rating.)



Detail 2.4
Bottom Profile - Single Action Swing Panel with Full Mortise Cylinder

(Weep holes and drainage by others necessary for water rating.)



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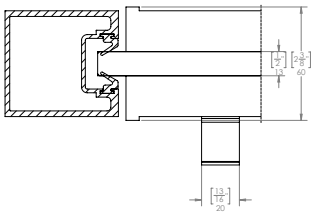
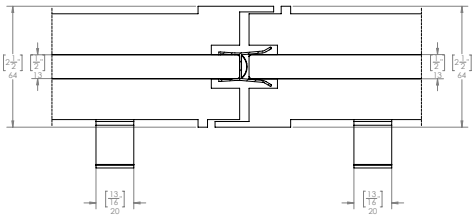
Details are shown with 1/2" (12 mm) thick glass

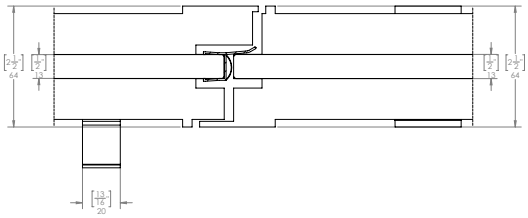
Detail 5.0
End Sliding Panel with Foot Activated Floor Bolt and Side Jamb



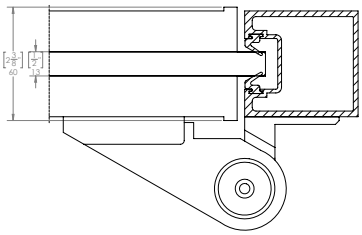
Detail 7.2
Meeting of Sliding Panels with Foot Activated Floor Bolt

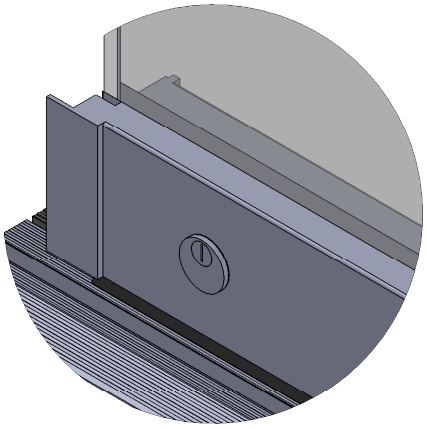


Detail 10.0
Meeting of Sliding Panel and Single Action Swing Panel with Foot Activated Floor Bolt and Full Mortise Cylinder

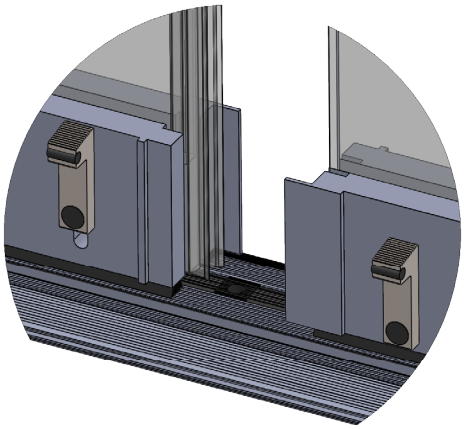


Detail 3.0
Single Action Swing Panel with Offset Hinge and Side Jamb (Inswing)

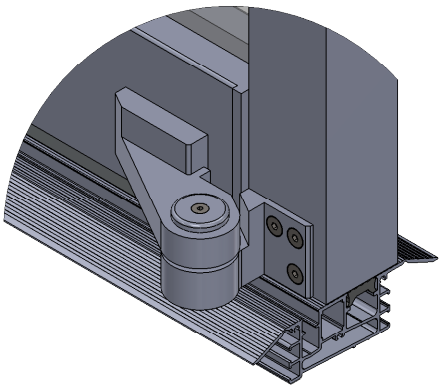




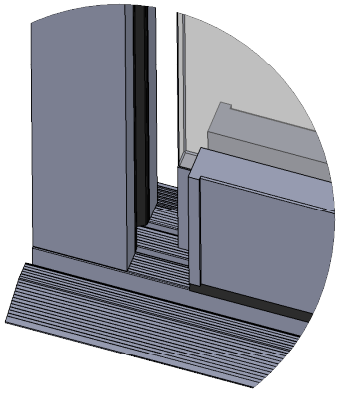
Bottom Profile with Full Mortise Cylinder



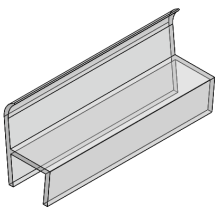
Bottom Profiles with Male/Female Interlock, Foot Activated Floor Bolts, and Low Profile Saddle Sill



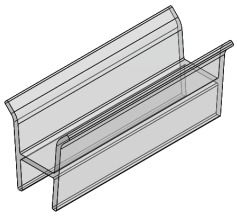
Bottom Profile of Single Action Swing Panel with Height Adjustable Offset Hinge



Bottom Profile Sliding Panel Moving Towards Side Jamb

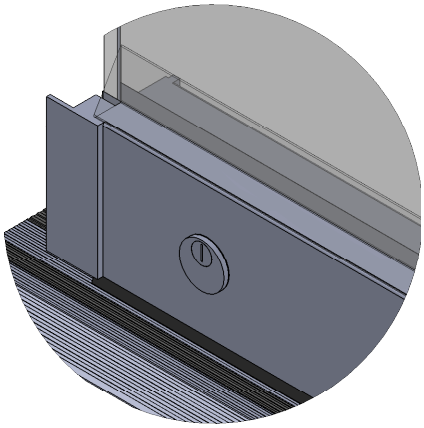


For **Detail 10.0**



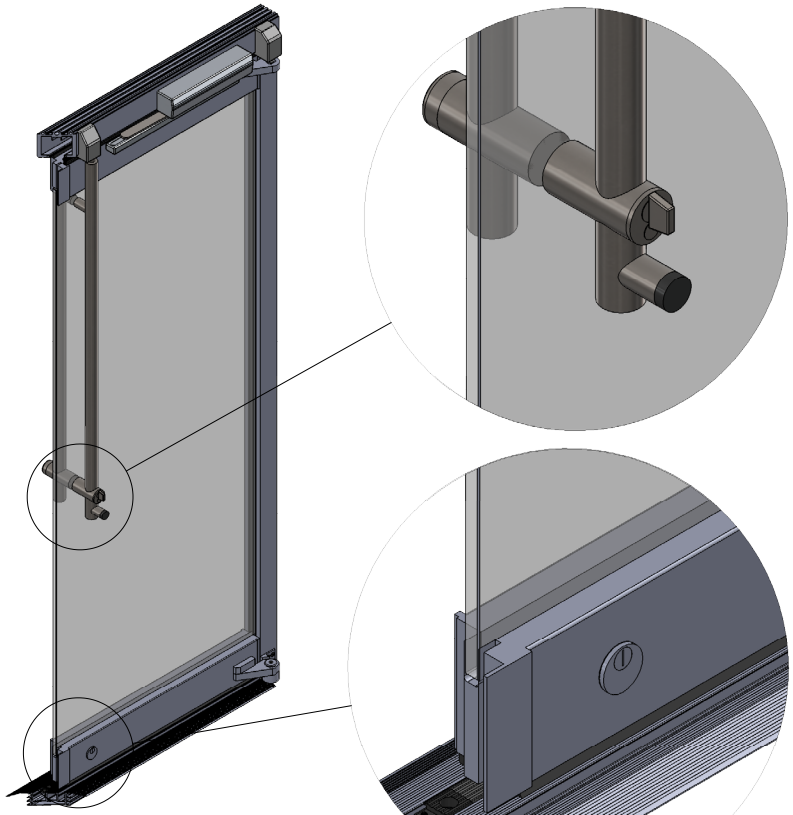
For **Detail 7.2**

Transparent Vertical Weather Seals



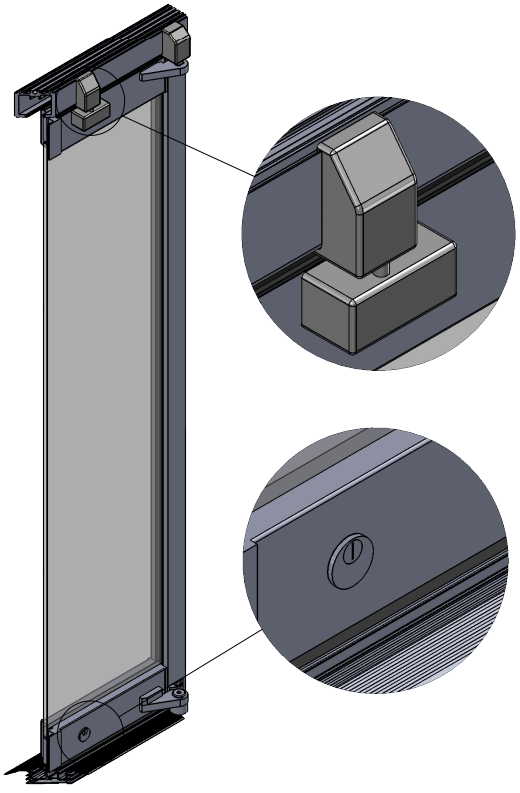
Acrylic Chamfer Bottom Profile with Full Mortise Cylinder

NanaWall®
Boundaries **Unbound**®



Reverse Tubo200 with IC RIM HOUSINGS ICR7 and Construction Core Cylinder Outside and Thumb Turn Inside at Hand Height

1 1/8" Mortise Lock with Construction Core Cylinder Inside/Outside



Non-Entry Swing Panel with Crank Handle Locking at the Top

1 1/8" Mortise Lock with Construction Core Cylinder Inside Only