WDS-35T Deployable Aluminum Flood Barrier

Technical drawings, component specifications and third-party witnessed performance test summary

COMPONENT SPECIFICATIONS

Item	Specification
Barrier panel	Extruded aluminum, 220 mm [8.66 in] high x 35 mm [1.38 in] thick, 2 mm wall, multi-cell hollow profile
Panel material	Alloy 6063-T5, anodized
Panel types	Top panel (2 U-caps, 2 waterproof strips), middle panel (2 strips each), bottom panel (bottom foam)
Seals	EPDM water strip between panels and at posts; EPDM bottom foam at sill
Side post (L / R)	80 x 52 mm [3.15 x 2.05 in] section, side-wall mounted, 6063-T5 anodized aluminum
Middle post	80 x 100 mm [3.15 x 3.94 in] section with rear back support, 6063-T5 anodized aluminum
Post height (tested)	1120 mm [44.1 in]; cut to project height
Clamping	Downward compression bolts on posts tighten the panel stack against the sill seal
Deployment	Panels slide into post channels and stack; no tools beyond the supplied clamp
Typical stack	3 panels = 660 mm [26 in] protection height; add panels for taller openings

DRAWING INDEX

Sheet	Drawing
1	System overview and specifications
2	Barrier panel: profile section and panel types
3	Panel stack assembly and protection heights
4	Side post: section and wall-mounted detail
5	Middle post: section and back support
6	Plan view, corner post and face-mounted post details

WITNESSED PERFORMANCE TEST SUMMARY (TESTED CONFIGURATION, 5 PANELS)

Parameter	Result
Standard	BS 851188-2:2019+A1:2021 (flood protection products, temporary and demountable)
Witnessed by	SGS, report NJINSCS2600257 Rev03, inspection May 15 and 19, 2026
Test sample	6.0 m [19.7 ft] wide x 1.12 m [44 in] high, 15 panels, 2 side posts, 2 middle posts
Water heights	334 mm, 668 mm and 1002 mm [13, 26 and 39 in], each held 1 hour, 3 full cycles, 80 h total
Leakage limit	< 40 L/h per meter of barrier
Leakage measured	0.02 to 0.20 L/h per meter across all heights and cycles (max 200 mL/h/m at 1002 mm)
Impact test	50 kg [110 lb] weight at 334 mm center height, two impacts: 0 mm deformation, no leak increase
Result	Satisfactory

GENERAL NOTES

1. All dimensions in millimeters, inch equivalents in brackets. Drawings are not to scale.
2. Barrier span is measured bracket to bracket on the finished opening; each panel set is cut to its opening only.
3. Outswing doors receive an interior install so the door swing and egress hardware stay clear.
4. Side posts anchor to the finished wall or frame; middle posts are used on spans over 3 m [10 ft] or as specified.
5. Rinse, dry and store panels after each deployment. Inspect EPDM seals annually.

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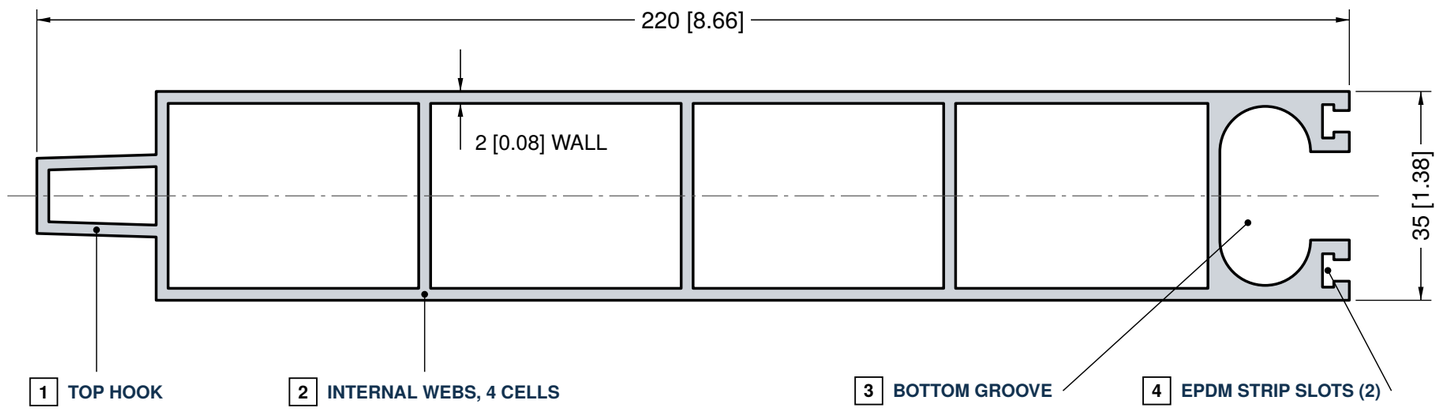
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SYSTEM OVERVIEW AND SPECIFICATIONS

Cover sheet, drawing index, general notes, test summary

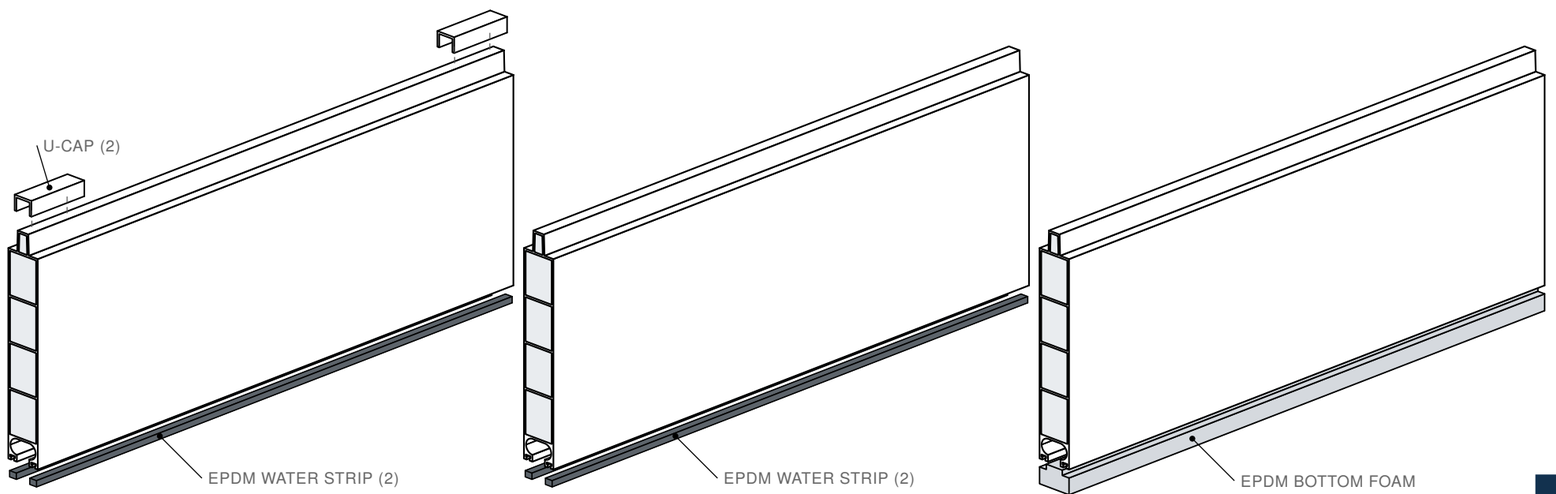
MODEL	PRODUCT	SCALE	SHEET
WDS-35T	Flood Barrier	NTS	1 OF 6

DATE 2026-09-26 REV A UNITS mm [in] DRAWN WDS ENGINEERING DWG NO. WDS-35T-01



PANEL PROFILE SECTION

220 mm [8.66 in] high x 35 mm [1.38 in] thick, 2 mm wall, top hook and bottom C-groove for the EPDM water strip



TOP PANEL

1 per stack: 2 U-caps, 2 EPDM water strips

MIDDLE PANEL

1 or more per stack: 2 EPDM water strips each

BOTTOM PANEL

1 per stack: EPDM bottom foam at sill

PANEL NOTES

1. Panels are extruded in alloy 6063-T5 and anodized for coastal exposure.
2. Multi-cell hollow profile: the internal webs give stiffness against hydrostatic load with a 35 mm thickness.
3. The top hook of each panel engages the bottom groove of the panel above; EPDM strips seal each joint under compression.
4. Compression bolts on the posts press the stack down onto the bottom foam to seal the sill.
5. Panels are cut to the measured span of each opening and labeled 1, 2, 3 from the bottom up for staff deployment.

PANEL DATA

Property	Value
Height	220 mm [8.66 in]
Thickness	35 mm [1.38 in]
Wall	2 mm [0.08 in]
Alloy / temper	6063-T5, anodized
Seal	EPDM strip, EPDM bottom foam
Max tested head	1002 mm [39.4 in] over 5 panels

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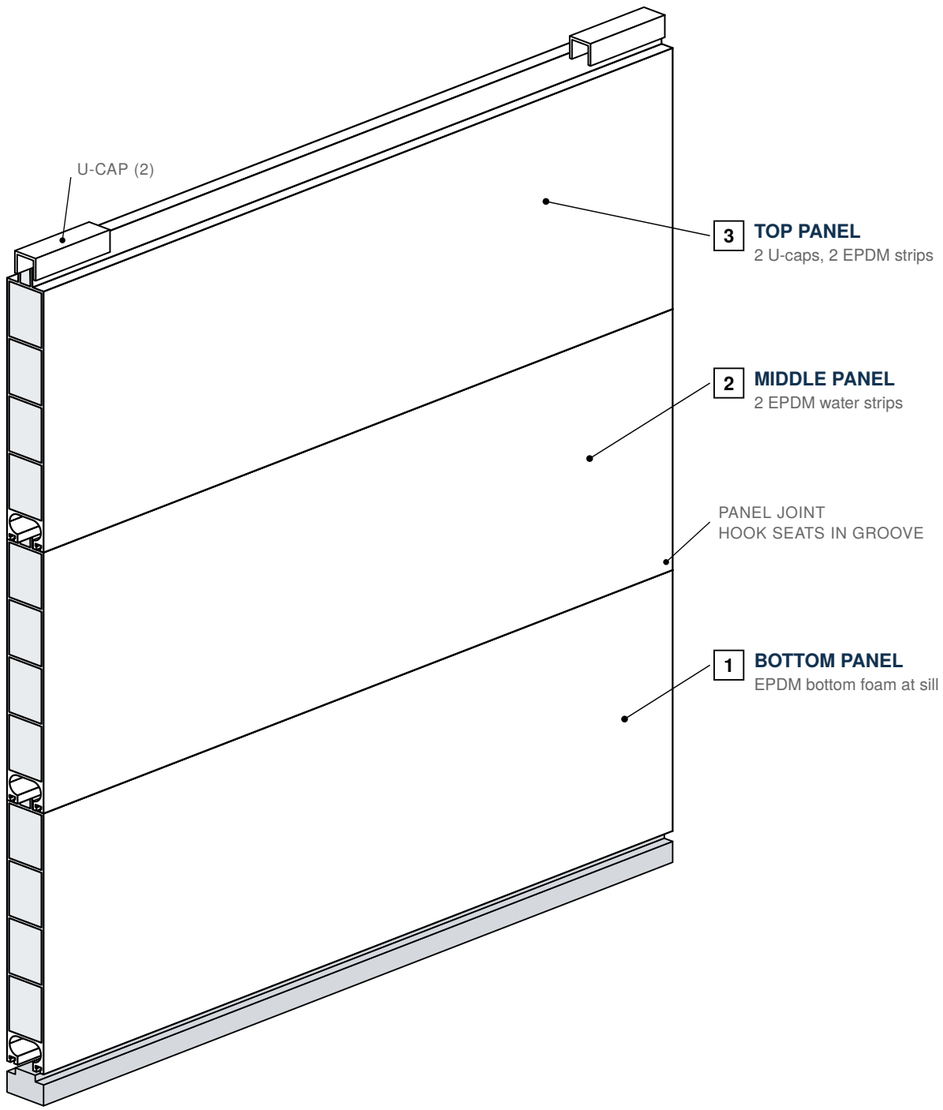
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BARRIER PANEL: PROFILE AND PANEL TYPES

Extruded 6063-T5 aluminum panel, 220 x 35 mm, 2 mm wall

MODEL	PRODUCT	SCALE	SHEET
WDS-35T	Flood Barrier	NTS	2 OF 6

DATE 2026-09-26 REV A UNITS mm [in] DRAWN WDS ENGINEERING DWG NO. WDS-35T-02



STACKED PANEL ASSEMBLY (3 PANELS SHOWN)

Top panel with U-caps, middle panel, bottom panel with foam; posts not shown

PROTECTION HEIGHT BY PANEL COUNT

Panels	Stack height	Typical use
1	220 mm [8.7 in]	Low sill, nuisance flooding
2	440 mm [17.3 in]	Doors and offices
3	660 mm [26 in]	WDS standard: garages, elevator lobbies, fire exits
4	880 mm [34.6 in]	Loading docks, ramps
5	1100 mm [43.3 in]	Tested configuration (1002 mm water head)

SPAN AND POSTS

Opening span	Post configuration
Up to 1.2 m [4 ft]	2 side posts (single door)
Up to 2.7 m [9 ft]	2 side posts (single garage)
Up to 5.5 m [18 ft]	2 side posts + 1 middle post (double garage)
6.0 m [19.7 ft] tested	2 side posts + 2 middle posts
Wider openings	Add middle posts at equal spacing



Two panels between side posts

ASSEMBLY NOTES

1. Deployment sequence: bottom panel first (label 1), then middle (2), then top (3); tighten the compression bolts on each post.
2. Water load is transferred through the panel joints into the posts and then into the wall anchors and slab.
3. Store panels on the supplied wall bracket next to the opening; rinse and dry after every event.

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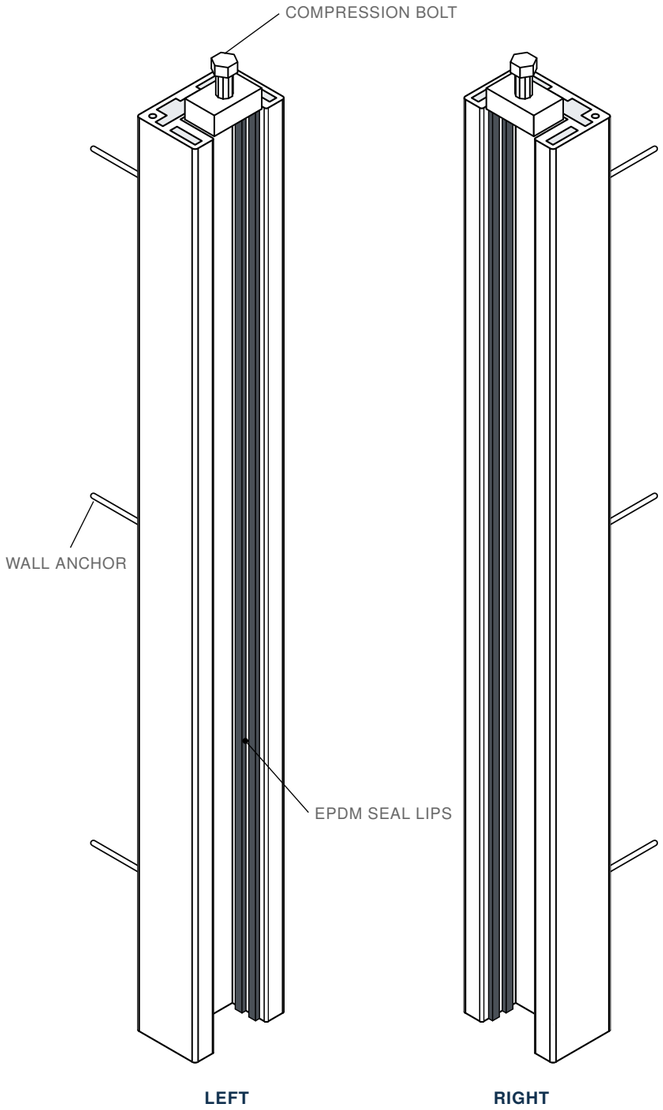
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PANEL STACK ASSEMBLY AND PROTECTION HEIGHTS

Stacked panels between posts, isometric

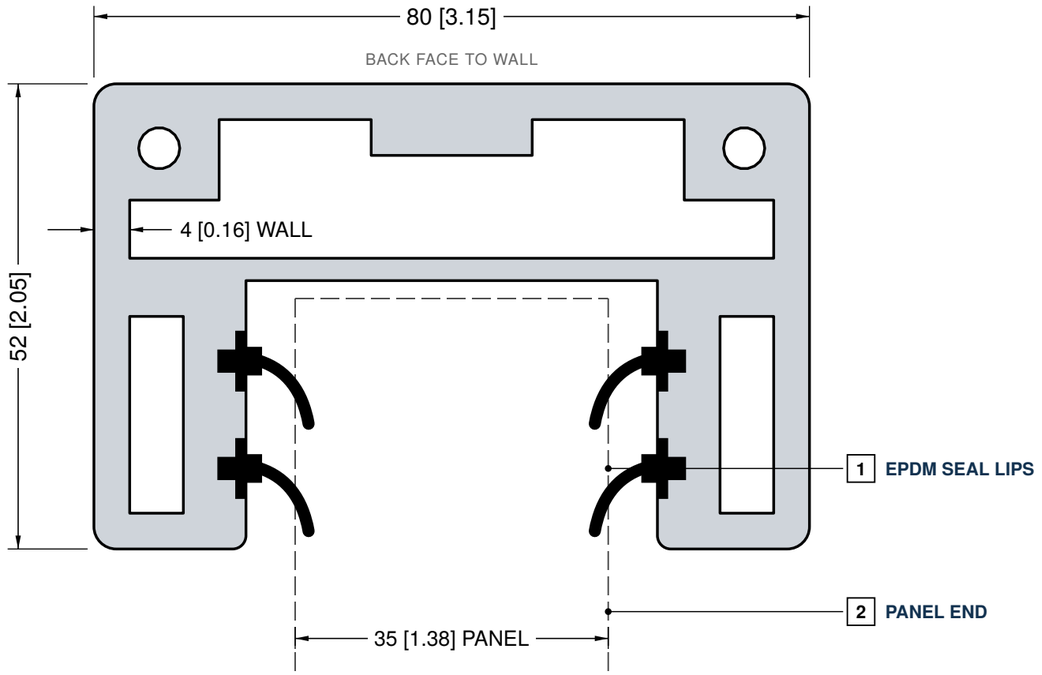
MODEL	PRODUCT	SCALE	SHEET
WDS-35T	**Flood Barrier**	**NTS**	**3 OF 6**

DATE 2026-09-26 REV A UNITS mm [in] DRAWN WDS ENGINEERING DWG NO. WDS-35T-03



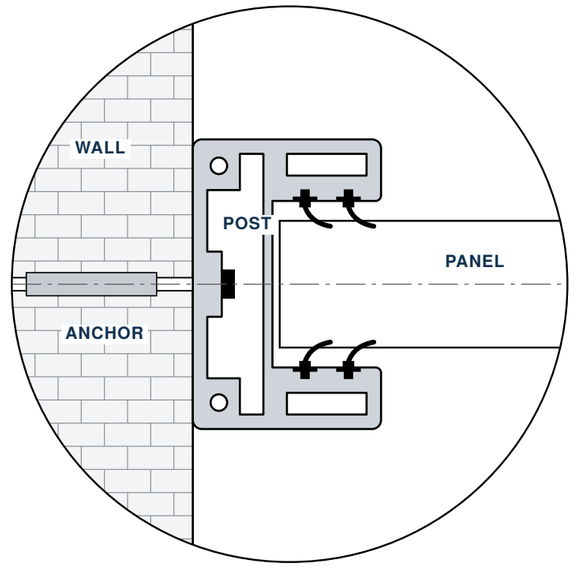
SIDE POSTS, LEFT AND RIGHT

Shown for a 3-panel stack; cut to project height



SIDE POST SECTION

80 x 52 mm [3.15 x 2.05 in], 4 mm wall, EPDM seal channels



WALL-MOUNTED POST DETAIL

Post anchored to masonry or concrete; panel end sits in the sealed channel

SIDE POST NOTES

1. Side posts are surface mounted on the finished wall or door frame with expansion or screw anchors sized for the substrate.
2. The post channel carries two EPDM seal lips that close against the panel end faces under compression.
3. Post height equals the number of panels x 220 mm plus the top clamp allowance; 1120 mm posts were used for the 5-panel test.
4. Outswing egress doors: install on the interior side so the door swing and panic hardware remain clear.

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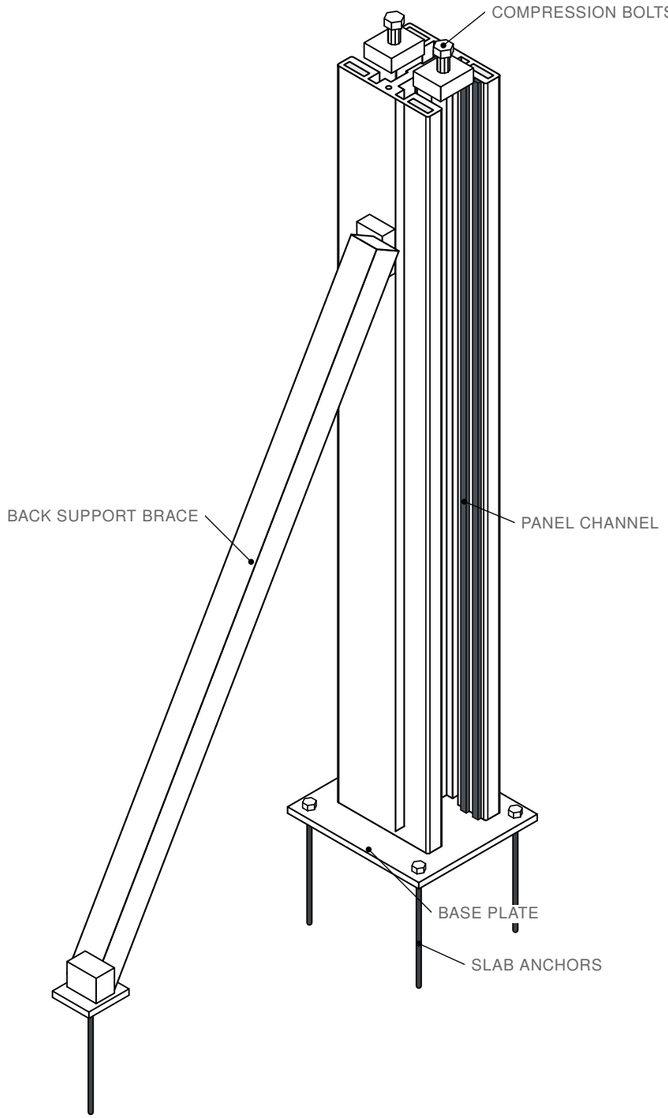
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SIDE POST: SECTION AND WALL-MOUNTED DETAIL

Left and right side posts, 80 x 52 mm, 6063-T5 anodized aluminum

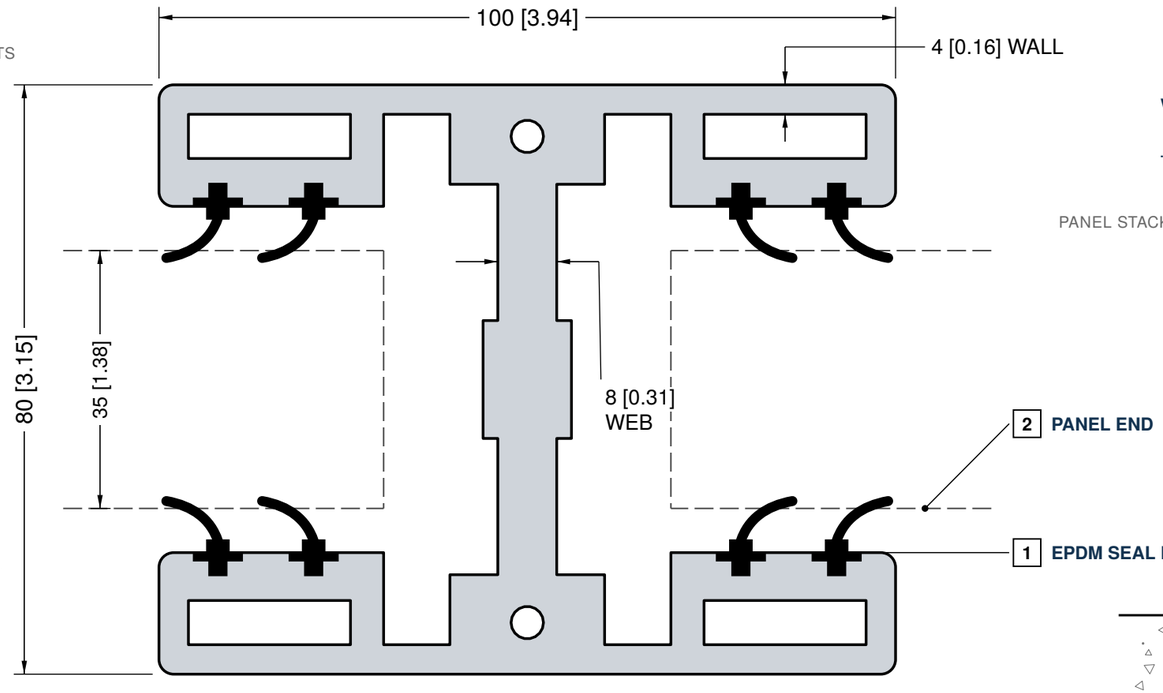
MODEL	PRODUCT	SCALE	SHEET
WDS-35T	**Flood Barrier**	**NTS**	**4 OF 6**

DATE 2026-09-26 REV A UNITS mm [in] DRAWN WDS ENGINEERING DWG NO. WDS-35T-04



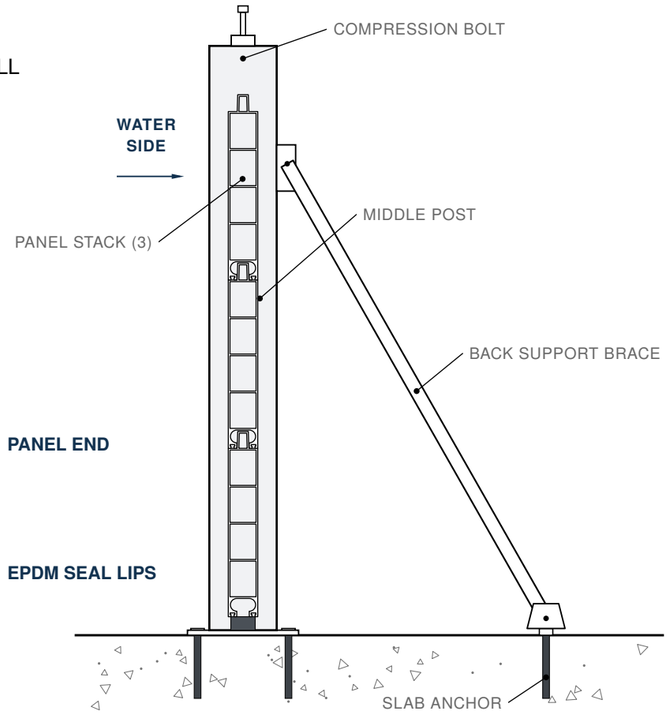
MIDDLE POST WITH BACK SUPPORT

Shown for a 3-panel stack; post fixed to the slab, angled brace to the rear



MIDDLE POST SECTION

80 x 100 mm, 4 mm wall, 8 mm center web



BACK SUPPORT BRACKET, ELEVATION

Post and brace anchored to the slab

MIDDLE POST NOTES

1. The middle post is fixed vertically at the midpoint between the two side posts (or at equal spacing for multiple posts).
2. Panels are inserted from both sides and stacked; the two channels are sealed independently with EPDM lips.
3. The back support brace is placed at the rear of the post and takes the hydrostatic load into the slab anchor.
4. Downward compression bolts at the post top tighten the stack onto the sill seal.
5. Tested configuration: 6 m span with two middle posts, 1002 mm water head, 50 kg impact, 0 mm deformation.

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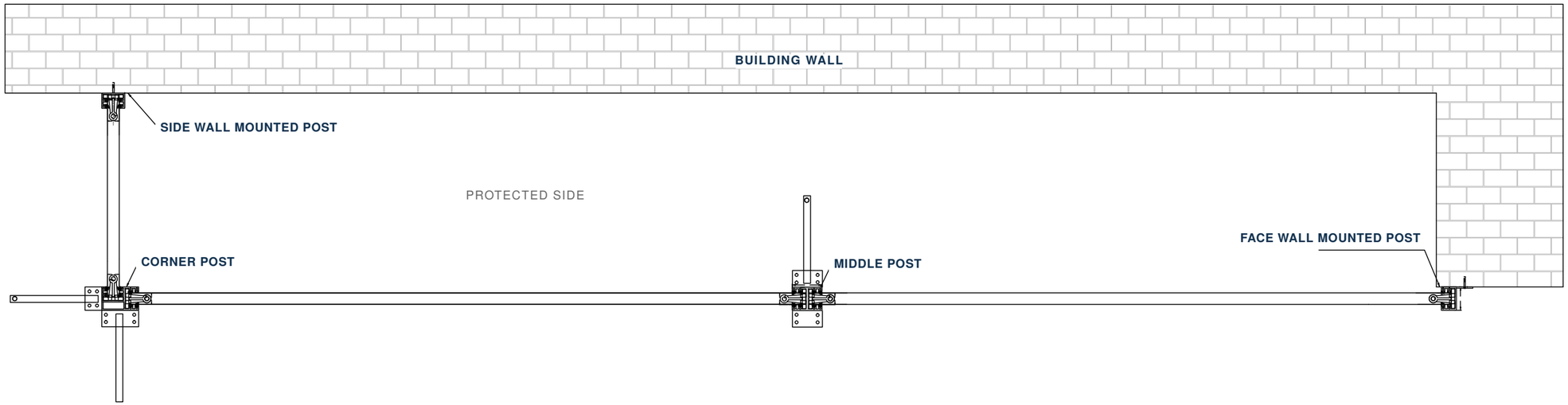
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MIDDLE POST: SECTION AND BACK SUPPORT

Intermediate post for wide openings, 80 x 100 mm, 6063-T5 anodized aluminum

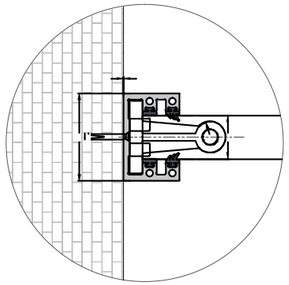
MODEL	PRODUCT	SCALE	SHEET
WDS-35T	**Flood Barrier**	**NTS**	**5 OF 6**

DATE 2026-09-26 REV A UNITS mm [in] DRAWN WDS ENGINEERING DWG NO. WDS-35T-05

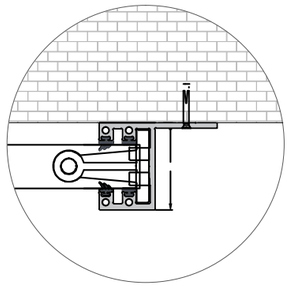


PLAN VIEW OF REMOVABLE FLOOD BARRIER

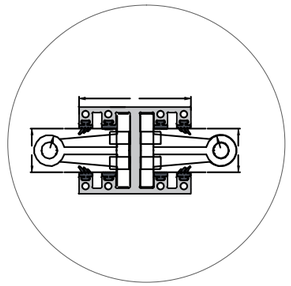
POST MOUNTING DETAILS



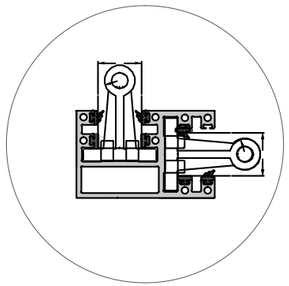
SIDE WALL MOUNTED POST



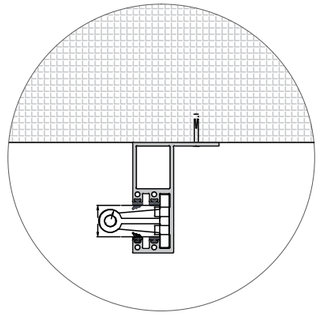
FACE WALL MOUNTED POST



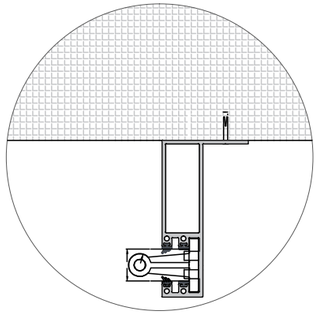
MIDDLE POST



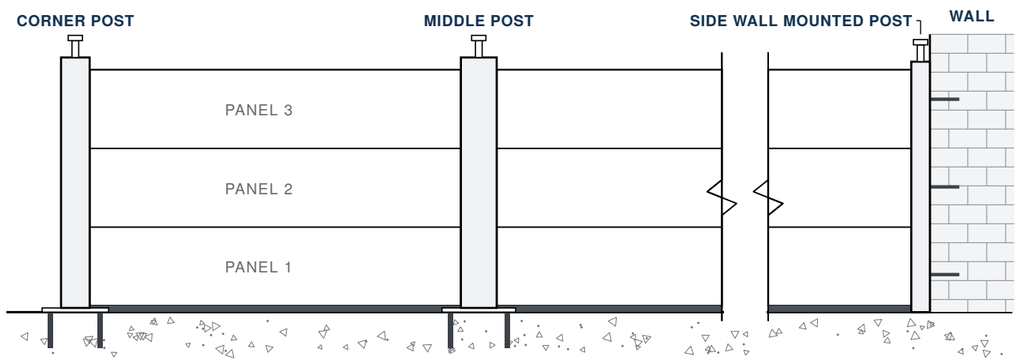
CORNER POST



FACE WALL MOUNTED POST
2 in [50.8 mm] extension



FACE WALL MOUNTED POST
4 in [101.6 mm] extension



ELEVATION, 3-PANEL BARRIER (SPAN BROKEN)

SHEET NOTES

1. Plan view and mounting details are supplier reference geometry, shown schematically.
2. For post and panel section dimensions see sheets 2, 4 and 5.
3. Elevation shows the 3-panel WDS standard stack.

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DRAWING TITLE

PLAN VIEW AND POST MOUNTING DETAILS

Top view of the removable barrier; side, face, middle and corner post details

MODEL	PRODUCT	SCALE	SHEET
WDS-35T	**Flood Barrier**	**NTS**	**6 OF 6**

DATE 2026-09-26 REV A UNITS mm [in] DRAWN WDS ENGINEERING DWG NO. WDS-35T-06