

Security Steel Notes

- Solray Panels factory painted either at works to a specified outdoor, or finished in a matt finish.
- Solray Panels installed with untempered 50mm glass fibre class 'W' foil backed matrices.
- Timber grounds by others to be level, straight & securely fixed.
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- No.10 x 38mm countersunk security screws.
- Connections to be 150 BSP sockets.
- Panel mass – 44kg/m² at works.
- Design conditions: MWt – 77°C.
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- Cover plate to be fixed with M6 x 10mm countersunk security screws.
- Connections to be cut to site dimensions, if necessary.
- All panel timber frames should be fitted within tolerances of ± 2.0mm

Solray Prison-Security Ceiling Panels SW 4586

Installation Instructions

- Materials supplied**  
The materials delivered are listed below - the quantity of each item will be shown on the delivery note for the specific job.

Item	Quantity for a 2000x600 mm Solray Panel with cover plate
Solray Prison-Security Ceiling Panel	1
Prison-Security Cover Plate	1
32x44 mm timber in standard lengths	6.4 m
10x60 mm Anchor bolts	16
10x60 mm countersunk security screws	120
No.10 1/2 Phillips security wood screw	20
M3x10 Phillips security screw	13
Prison-Security sawdust filler	1
Prison-Security epoxy resin, resin & curing agent	400 ccs in 2 plastic containers
Anchor 1025 Anti-pick mastic	1
Secure Quasimare	1

2. Timber grounds

Please refer to the Solray drawing for this project for installation details, the timber grounds should be level, straight & securely fixed.

Mark the positions of the timbers on the ceiling.

3. Rolled Panel Edges

Solray Panels have a solid edge where they do not have a wall, to conceal the timber man inside the Solray Panel edge, so that the timber ground centre line is 25 mm inside the edge.

4. Cutting and Fixing Panel Edges

Timber grounds should be level, straight & securely fixed.

Cut the standard timber sections supplied to the lengths required to give a complete frame around the perimeter of the Solray Panel, at a maximum of 600 mm centres.

Using the No.10 1/2 Phillips security wood screw, ensure the anchor heads are recessed into the timber so they do not foul the Solray Panel.

Drill the soft with 10 mm drill bits through the holes in the timber grounds or after removing the timber grounds as preferred.

Fix the timbers to the soffit, ensuring there is a continuous frame all-round the timber grounds.

The frame must be securely fitted to the soffit, allowing no movement in its position once fixed.

5. Solray Panel

If an end cover plate has been supplied with the Solray Panel, fit this to the Solray Panel using the M3x10 mm set screws supplied.

Fit the insulation provided to the rear of the panel, using the clips welded to the M3x10 mm set screws.

Mix the Resin and curing agent, as separate instructions. The work time is 20 minutes for a 400 ccs filled cartridge, 60 minutes for 20 ccs, both @ 20°C. Fill the timber grounds with the resin, pushing all edges that meet with light to the walls.

Drill 3 mm pilot holes squarely through the Solray Panel fixing holes into the timber grounds.

Resin application nozzle into the pilot holes and inject the Resin. TC4 resin into the heated Solray Panel holes (not the cover plate holes).

Using the No.10 1/2 Phillips security wood screw, fit the Solray Panel, and cover plate if supplied, to the timber grounds. Tighten the wood screws using a torque wrench.

Remove the cover plate to connect the Solray Panel to the heating matrix, keeping all the screws with the cover plate.

After pressure setting the plywood connections, refit the cover plate, using Loctite 242. Tighten the screws with a torque wrench.

Fit the wood screws on the side edge of the Solray Panel at the cover plate joints to the heating Solray Panel wood screws.

Lightly touch the screw heads with the touch-up paint supplied to give a good appearance.

Apply anti-pick mastic to all gaps between the Solray Panel and the ceiling and/or walls (this is only necessary for uneven ceilings and walls).

SALES LITERATURE

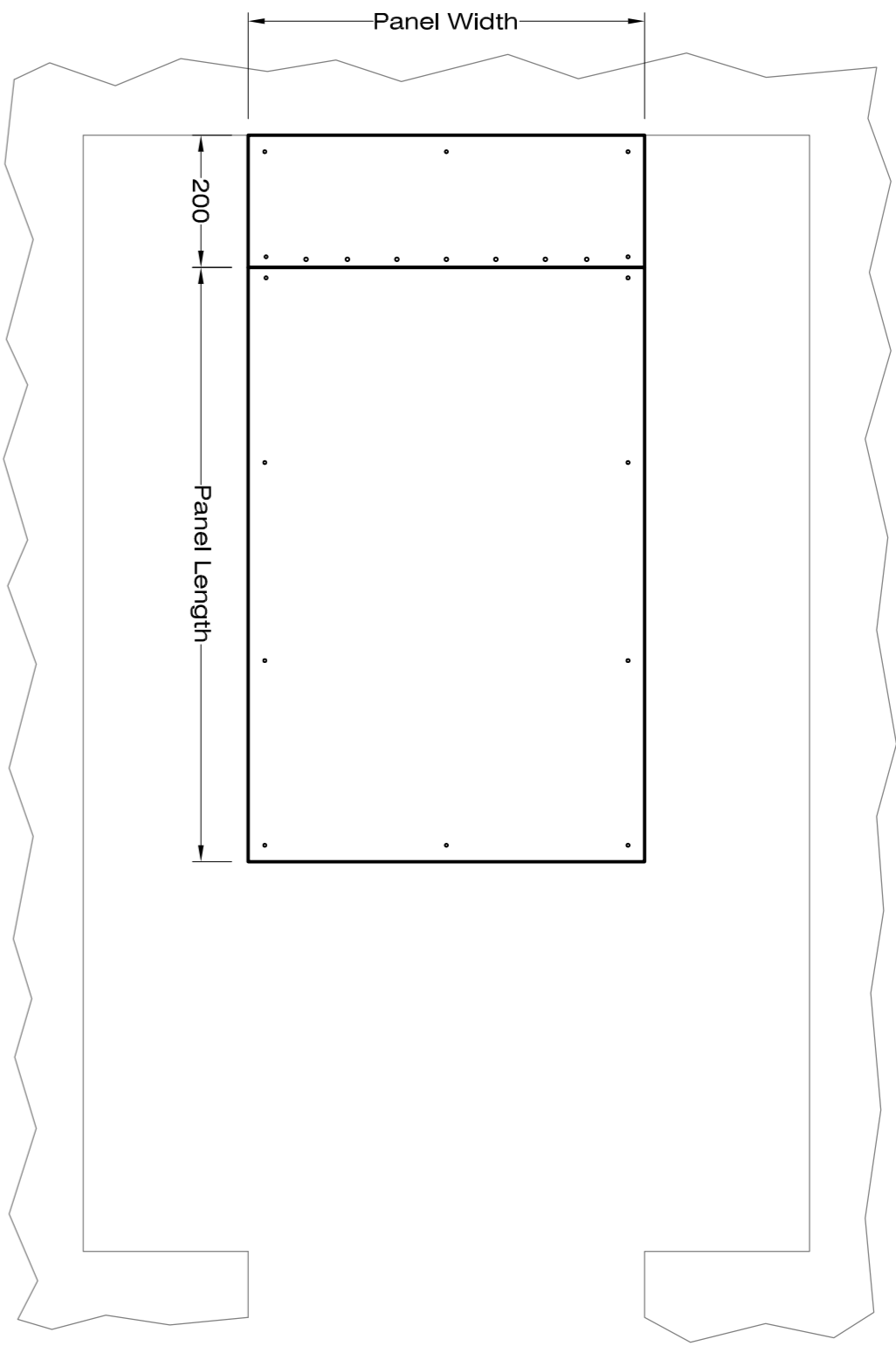


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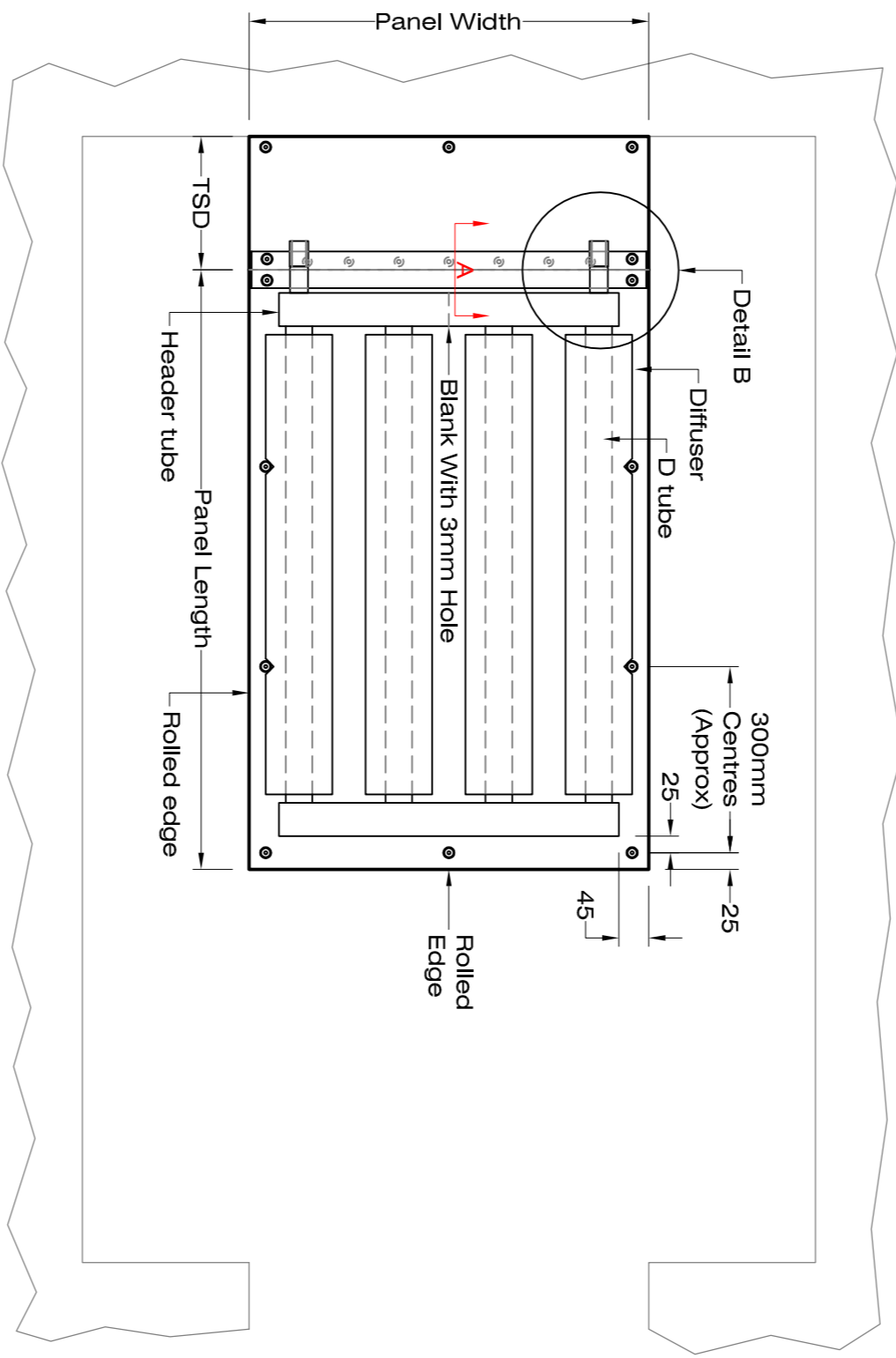
Ministry of Justice NOMS  
Approved Security Panel

NOMS Approval date:

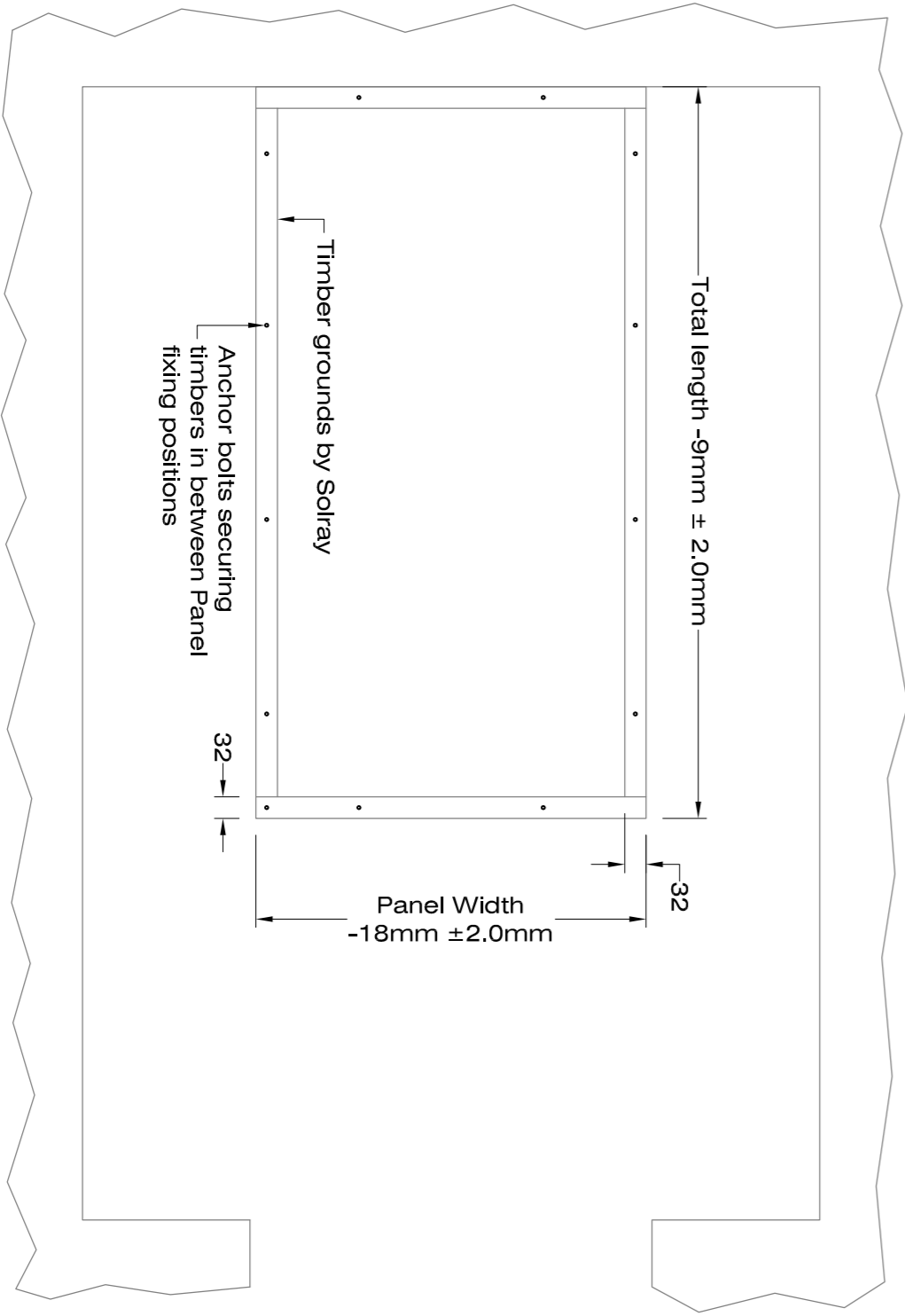
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Drawn By: C.J. Bevan	Scale: As Shown	Page Size: A1
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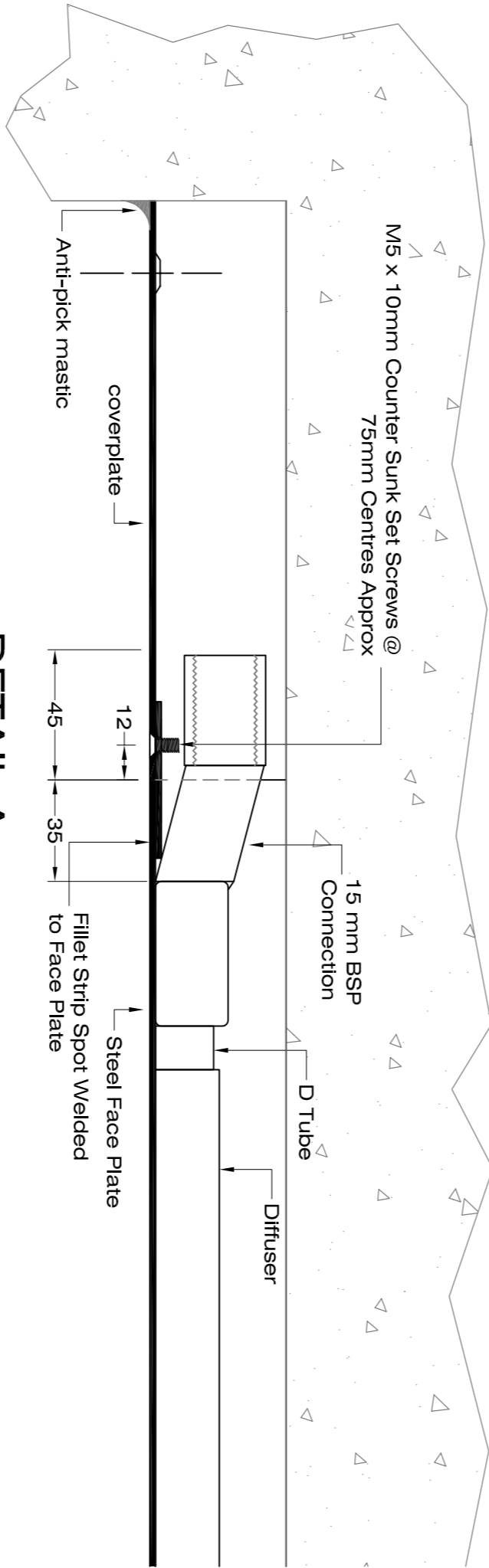
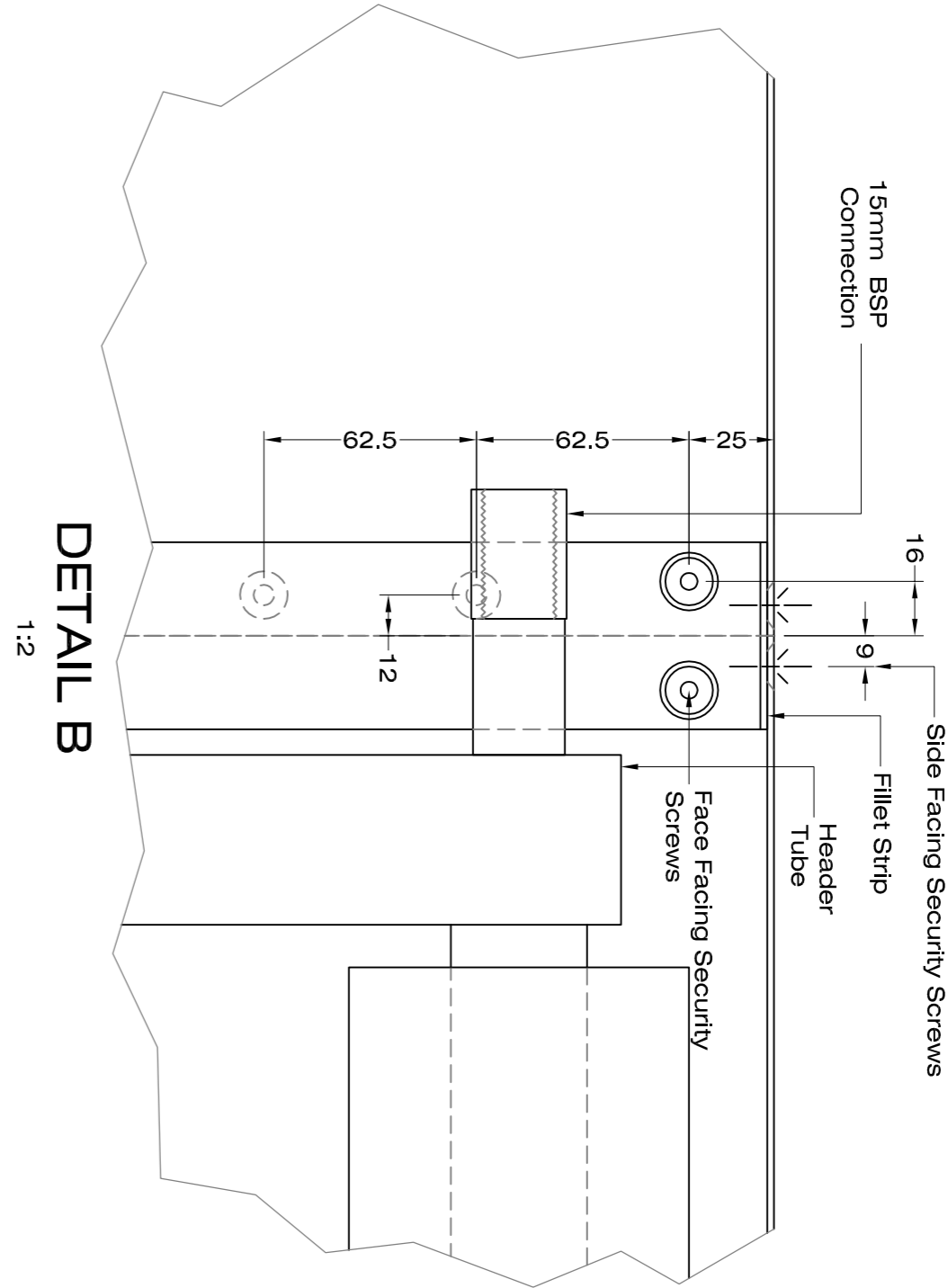
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1:10



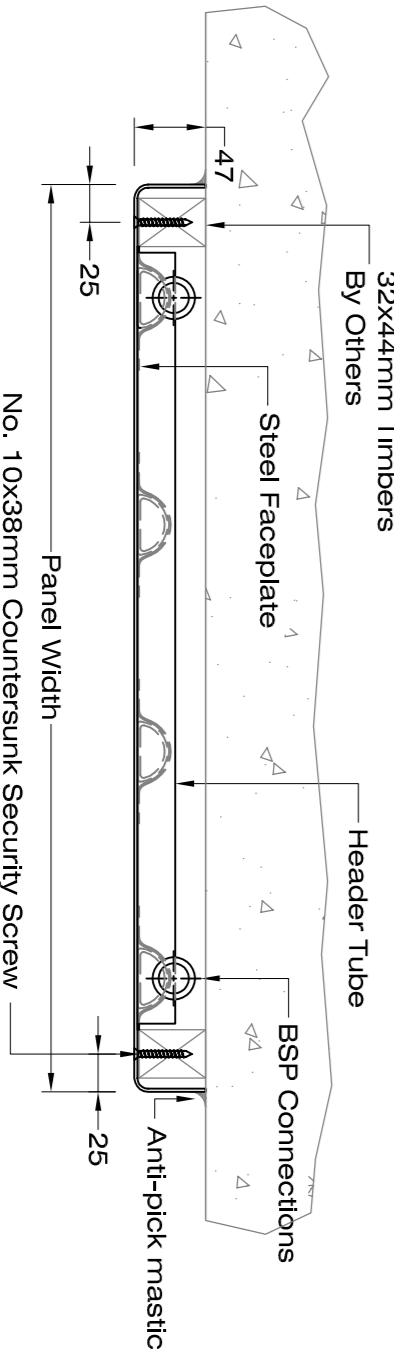
3RC1C-PS Viewed From Back  
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3RC1C-PS Viewed From Face  
1:10



DETAIL A  
COVERPLATE & CONNECTION  
1:2



SECTION DETAIL  
1:5