WEATHERPROOFING AND MOISTURE MANAGEMENT

1. Scope

The E-METRIX External Wall System incorporates a drained and ventilated cavity design consisting of 75 mm AAC panels, steel top-hat battens, vapour-permeable wall wrap and an approved rendered finish system.

This system is designed to manage the penetration of wind-driven rain by incorporating recognised weatherproofing principles including:

- Drained cavity construction
- Weather-resistive wall wrap
- Shingle-lapped water shedding interfaces
- Flashings to openings and penetrations
- Movement joints
- Controlled drainage paths
- Durable sealant systems

All components shall be installed in accordance with this Technical Manual and associated construction details.

2. General Weatherproofing Principles

The E-METRIX Wall System relies on the following principles:

Water Shedding
All flashings, membranes and interfaces shall be installed using the shingle principle so water is directed to the exterior surface.

Drainage
Any moisture entering the cavity shall be able to drain freely to the exterior without obstruction.

Drying
The cavity created by the steel top hats provides ventilation and drying potential behind the AAC panel and render system.

Deflection
Window flashings, parapet flashings, sill flashings and penetration flashings shall be provided to direct water away from vulnerable openings.

3. Wall Wrap Installation

Weather-resistant wall wrap shall:

- Be installed continuously over the framing.
- Comply with the wrap manufacturer's requirements.
- Be lapped minimum 150 mm horizontally.
- Be lapped minimum 100 mm vertically.
- Be integrated with all flashings.
- Lap over head flashings.
- Lap under sill flashings where applicable.
- Be sealed around penetrations using flashing tape or proprietary membrane systems.

4. Window and Door Openings

All openings shall incorporate:

Window Head

- Corrosion-resistant metal head flashing.
- Minimum fall of 10°.
- Formed end dams.
- Drip edge extending beyond finished render.
- Wall wrap lapped over flashing.
- Flexible flashing tape at wrap transitions.
- Render termination clear of flashing.

Window Jambs

- Continuous sealant joint.
- Backing rod where required.
- Flashing and membrane continuity.

Window Sill

- Sloped sill flashing.
- Positive drainage to exterior.
- End dams to flashing.
- Weep path unobstructed by render.

5. Penetrations

Service penetrations including:

- Plumbing pipes
- Electrical conduits
- Exhaust ducts
- Meter boxes

shall be sealed using proprietary flashing collars, membranes or compatible weatherproofing systems.

Penetrations shall not obstruct cavity drainage.

6. Movement Joints

Movement joints shall be installed in accordance with project documentation and render manufacturer requirements.

Movement joints shall:

- Remain weatherproof.
- Incorporate flexible sealants.
- Be maintained free from rigid render bridging.

7. Render System

The approved render system shall:

- Be installed in accordance with the render manufacturer's requirements.
- Be installed over approved reinforcing mesh.
- Be terminated clear of drainage flashings.
- Not bridge drainage openings or weep paths.
- Maintain required clearances to windows, doors and flashings.

A minimum 10 mm clearance shall be maintained between horizontal flashings and render terminations unless otherwise specified by the render manufacturer.

8. Installation Requirement

The weatherproofing performance of the E-METRIX Wall System is dependent upon correct installation of all wall components, flashings, membranes, sealants and cavity details.

Failure to follow the details contained within this Technical Manual may compromise the weather resistance of the wall assembly.