

WP104 Waterproofing Retaining Walls on Slab Edge (Spray Applied)

Preparation:

1. All surfaces to be waterproofed must be firm, clean, dry, sound and smooth. All grease, oil, wax, curing compounds, loose material, paint and any other contaminants must be removed, masonry surfaces must be pointed flush and surface defects repaired. New concrete must be cured for a minimum of 28 days.
2. External corners to be waterproofed must be bevelled to ensure a smooth transition of membrane from vertical to horizontal surfaces.

Installation:

1. Repair all surface defects on retaining wall masonry surfaces with [Atek Penapatch Structural HB80](#).

[Atek Penapatch Structural HB80](#) is a high strength; high build shrinkage compensated structural repair mortar.

2. Install a Gunable Waterstop around all penetrations. The waterstop must be packed in between at least a 50mm cover of [Atek Penapatch Structural HB80](#).

Gunable Waterstop products are caulk grade, single component swelling pastes used to stop water infiltration through concrete construction joints.

3. Install an appropriate fillet (bond breaker) to transitions and penetrations using [WPA FC](#).

[WPA FC](#) is a high performance, fast cure, one component polyurethane sealant.

4. Apply [WPA SB](#) primer to non-porous surfaces, such as PVC and metal pipe penetrations using the 2 cloth method. (The 2 cloth method is carried out as follows: dampen a clean cloth with an appropriate amount of WPA SB primer, wipe evenly over the non-porous substrate utilizing a rubbing action. With a clean dry cloth, immediately remove all primer residues by implementing a buffing action).

[WPA SB](#) is a fast drying, solvent based primer, with exceptional penetrating properties. WPA SB primer is designed to assist in improving adhesion on porous and non-porous substrates.

5. Apply [WPA 560](#) or [WPA 3460](#) primer to the substrate being waterproofed.

[WPA 560](#) is a two-part, water-based epoxy primer, designed as a water and vapour proof coating under waterproofing membranes.

[WPA 3460](#) is a single component primer based on polyether polyol and modified MDI isocyanate.

6. Apply [WPA 3400](#) membrane to the external side of the retaining wall.

[WPA 3400](#) is a two component, 100% solids, rapid curing, spray applied, hybrid polyurea, elastomeric waterproofing membrane.

7. All slab edges must be detailed utilising [WPA Elastoband](#) or [WPA Butyl Tape](#).

[WPA Elastoband](#) is an innovative detailing system designed for waterproofing and sealing all types of joints, junctions and transitions subjected to movement.

[WPA Butyl Tape](#) is a multi-purpose self-adhesive detailing tape incorporating a fleece face layer with a release backing film and self-adhesive butyl rubber on the underside. It provides a waterproof seal between most types of joints and transitions in both internal and external applications

8. If membrane is required above ground level, Install an appropriate fillet (bond breaker) to all transitions using [WPA MS](#) or [WPA SPUR](#).

[WPA MS](#) is a single component, moisture cured silane modified hybrid sealant.

[WPA SPUR](#) is a high quality, professional, universal, low modulus sealant based on hybrid technology.

9. Apply [WPA 460](#) or [WPA 560](#) primer to the substrate with a minimum 150mm overlap onto the [WPA 3400](#) membrane.

[WPA 460](#) is a two-part, water-based epoxy primer, used to seal concrete and masonry surfaces.

[WPA 560](#) is a two-part, water-based epoxy primer, designed as a water and vapour proof coating under waterproofing membranes.

10. Apply [WPA 230UV](#) membrane to the above ground surface, ensuring that the first coat has completely dried before applying the second coat.

[WPA 230UV](#) is an elastomeric, fibre reinforced, water-based polyurethane membrane system designed for exposed or under tile applications.

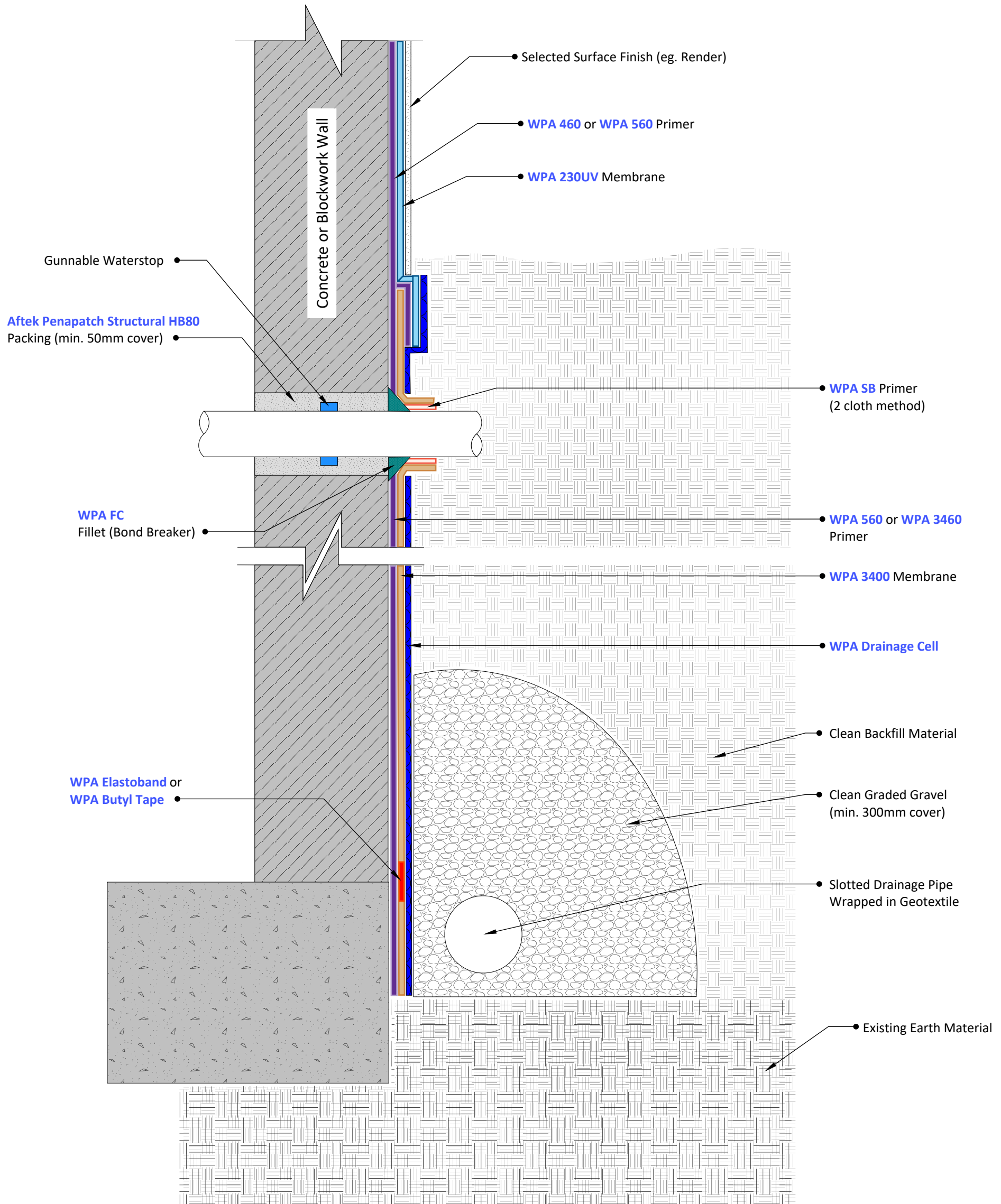
11. Install [WPA Drainage Cell](#) to all waterproofed surfaces below ground level.

[WPA Drainage Cell](#) is a two-core drainage sheet consisting of a non-woven geotextile filter layer thermally welded to a water impermeable, recycled HDPE (High Density Polyethylene) drainage membrane.

12. Install slotted drainage pipe wrapped in geotextile next to the slab edge.

13. Cover drainage pipe with a minimum of 300mm of gravel and cover gravel with additional geotextile filter layer.

14. Backfill with clean material.



1 Cross Section
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