WP103 Waterproofing Retaining Walls on Slab Edge

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 **Aftek Penapatch Structural HB80**.

   Aftek Penapatch Structural HB80 is a high strength; high build shrinkage compensated structural repair mortar.

2. Install a Gunnable Waterstop around all penetrations. The waterstop must be packed in between at least a 50mm cover of **Aftek Penapatch Structural HB80**.

   Gunnable 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 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.

4. Apply **WPA 160** primer to non-porous surfaces, such as PVC and metal pipe penetrations.

   WPA 160 is a specialised solvent free primer designed for enhancing the adhesion of subsequent membranes, adhesives, toppings and decorative finishes over non-porous substrates.

5. Apply **WPA 460** or **WPA 560** primer to the substrate being waterproofed.

   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.

6. Apply **WPA Hybrid 1** membrane to the external side and top of the retaining wall, ensuring that the first coat has completely dried before applying the second coat.
   NOTE: Where surface finishes such as render, tiles and paint are required, this area should be waterproofed with **WPA 230UV** and allowed to dry prior to overlapping with the **WPA Hybrid 1**.

   WPA Hybrid 1 is a one-part, liquid applied, moisture cured non-hazardous waterproofing membrane based on SMP technology (Silyl Modified Polymer), which offers a safe alternative to solvent-based PU membranes.

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

7. All transitions 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

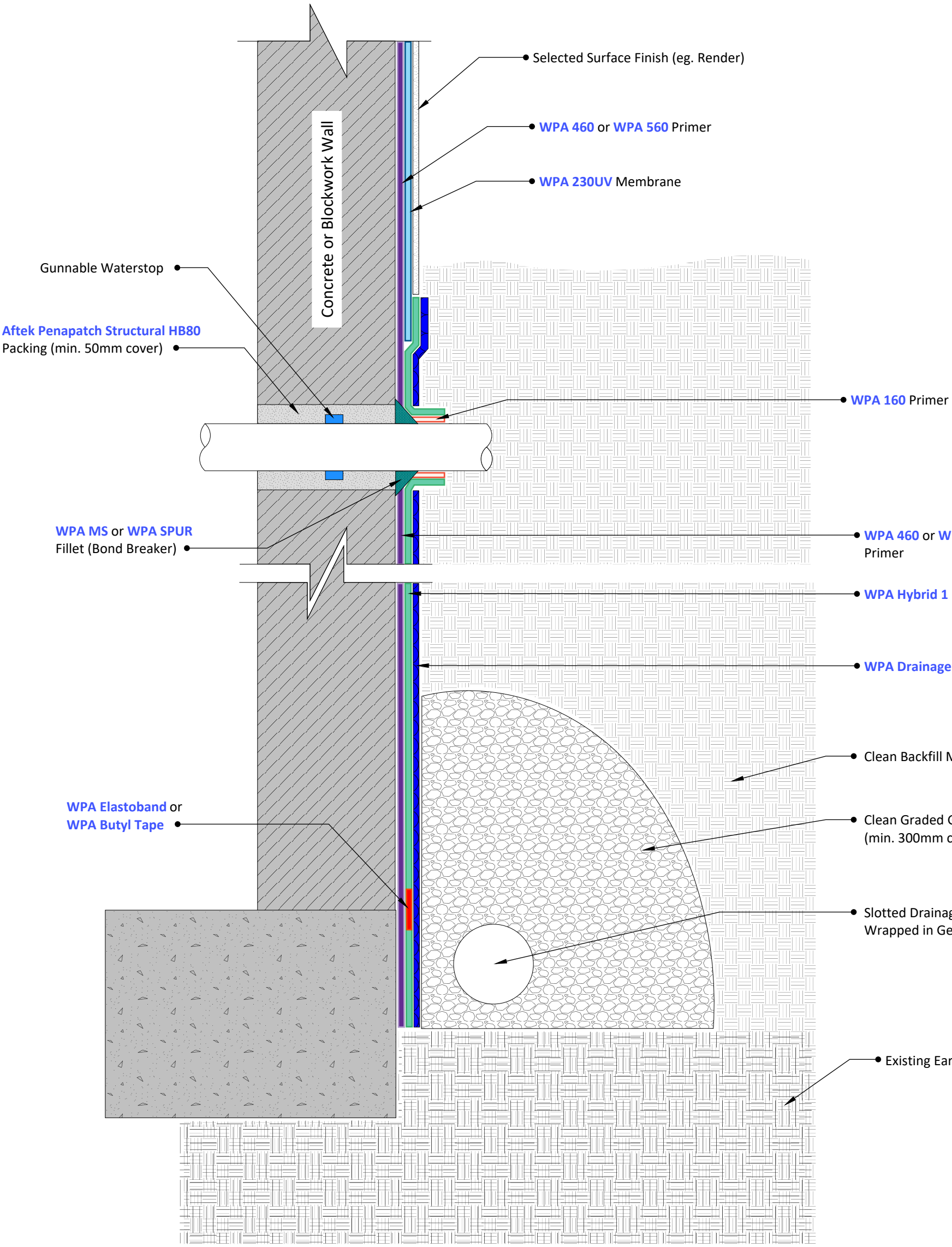
8. Install **WPA Drainage Cell** to all waterproofed surfaces below ground level.

   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.

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

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

11. Backfill with clean material.



1 Cross Section

NTS

bayset Specialist Trade Suppliers
Waterproofing, Flooring & Concrete Repair Industries

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