



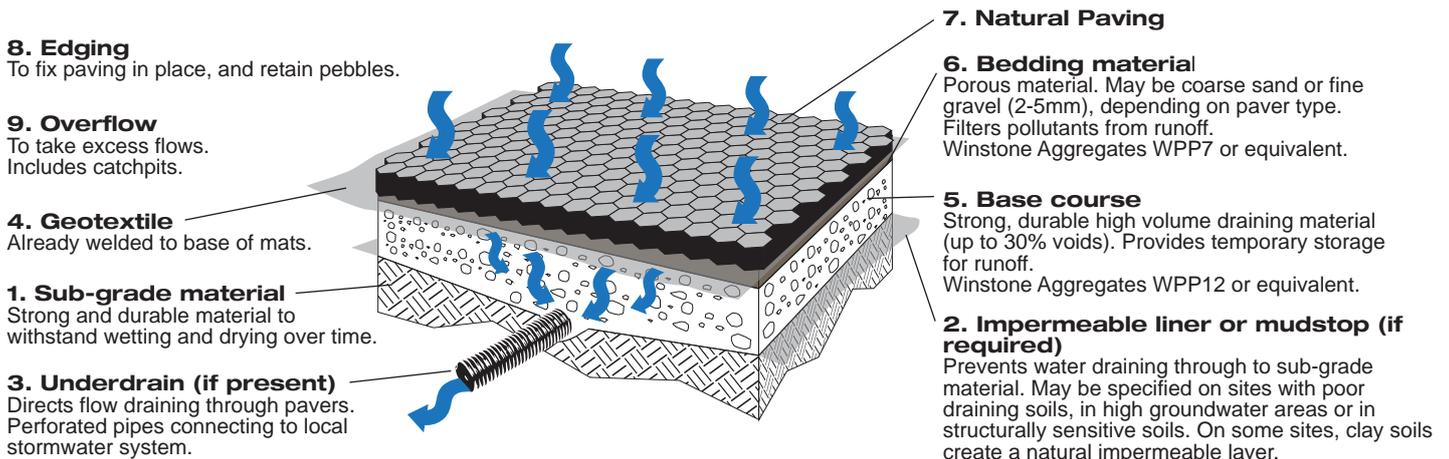
What are permeable pavements?

Permeable pavements are hard surface paving systems that reduce stormwater runoff flows and improve runoff water quality. The porous surface of permeable pavement allows stormwater to soak through to an underlying coarse gravel layer, before slowly draining away. They are used in low traffic areas such as carparks, driveways and footpaths.

Quick Checks

- Keep sediment and soil clear of permeable paving area during construction.
- Inspect area after one year to check functioning as designed.
- Block new and existing inlets and outlets from area during construction.

9 key components of permeable pavements



Construction Sequence

The following is a general guide for permeable pavement construction. Refer to detailed plans and specifications for each site in consent plans.

1. Prepare site ground.

Mark or peg out paving area. Put erosion and sediment control measures in place (catchpit protection, filter socks, silt fencing). Remove topsoil and, if specified, compact sub-grade. Grade to specified level. Place edge beams around perimeter.

2. Lay impermeable liner and underdrain, if included.

If specified, lay impermeable liner over entire area, checking seams are sealed and there are no stress points or tears. If included, lay underdrain (with filter sock, if specified), on 300mm minimum depth gravel with 0.5% slope (50mm drop over 1m length). Connect to stormwater outlet with watertight fit. Backfill carefully over underdrain with 50mm base course.

3. Impermeable liner or mudstop.

Place impermeable liner and / or mudstop over sub-grade material. Place filter sock over underdrain to prevent clogging by fine sediment in runoff.

4. Place base course.

Place gravel base course material to level and depth specified, and compact. Base course gravel to be washed crushed rock (not scoria) with 30% minimum voids. Winstone Aggregates WPP12 or equivalent.

5. Lay bedding material.

Lay clean, bedding material over base course. Level with rake or straight edge. Do not compact. Lay to 25mm minimum depth. Winstone Aggregates WPP7 or equivalent.

6. Lay Natural Paving.

Follow manufacturer's specifications for grade of mat and fill with clean pebbles, 5 to 15mm dia. At edges lay strips of geotextile to make up any gaps to edging, overlapping under mats by 100mm.

7. Restore site.

Remove construction materials and reinstate surrounding area, regrassing disturbed areas. Remove sediment and erosion controls. Check underdrain connections to stormwater systems are clear of blockages.

Extract from 'Permeable Construction Guide' published by Auckland Council: Stormwater device information series, customised for Natural Paving.