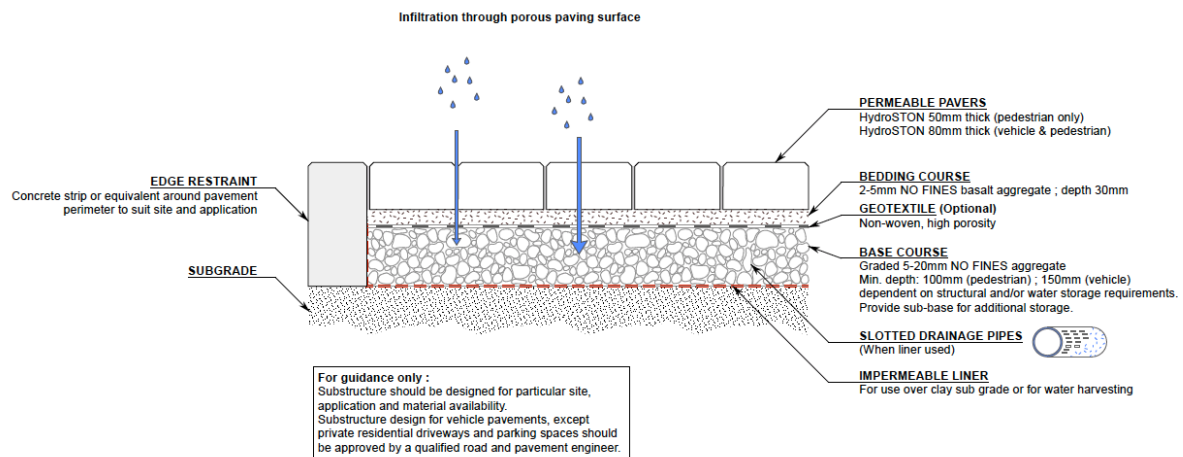


## Step by Step Guide

# Construction of HydroSTON Permeable Pavements



## Preparing pavement substructure - base course and bedding layer

1. Excavate to design depth ~ generally 300mm below final pavement level. Variable depending on application.
2. Pour concrete strip footings or standard kerbs extending to bottom of excavation and to all unbound edges (ie all edges that are not against a solid structure such as a building or existing concrete slab). Strip footings to be 250mm in width to allow paver header course to be mortared to the concrete strip. Footings should be constructed so as to contain entire pavement area and avoid lateral spread of bedding and base course / sub-base aggregate.
3. Proof compact subgrade with plate compactor.
4. If required (eg clay subgrade) Install slotted drainage pipes (ag-line) connected to stormwater system, landscape area or natural watercourse.
5. Install base course to design depth. Base course to consist of graded 10–20mm LOW/NO fines hard and angular aggregate, preferably virgin basalt (blue metal). **Do not use recycled concrete products due to high cement dust content.** Blend aggregate thoroughly. Install in layers max 100mm deep with full compaction between layers.
6. Run minimum of 3 passes with plate compactor between layers.

7. Rough screed base course once required level achieved (30mm plus thickness of pavers below final pavement level ie 110mm for HydroSTON vehicle pavements and 80mm for HydroSTON pedestrian only pavements).
8. Compact base course again to ensure flat surface.
9. Install nonwoven geotextile fabric with hydraulic conductivity min. 3,600 mm/hr over level base course. Joints to have 300mm overlaps.
10. Install bedding layer ~ 30mm depth with 5mm single size or 5-7mm graded LOW/NO FINES aggregate, preferably virgin basalt (blue metal). Allow 5mm above finish level for compaction of paver surface.
11. Roughly screed to levels and falls.
12. Run 2 passes with the plate compactor.
13. Final screed to levels and falls.

## Laying pavement cover – pavers

14. Lay out string lines to maintain pattern.
15. Install pavers. Butt together in selected pattern ie without gaps between joints. Herringbone pattern recommended for HydroSTON 80 vehicle pavers.
16. Secure header course to strip footings or lay tight to kerb or existing edge restraints. Pavement must be contained by effective edge restraints.
17. Check paving unit levels and lines. Adjust surface levels and lines with rubber hammer.
18. Brush bedding aggregate over laid pavement to fill any gaps, especially between headers and body of pavement. Discard oversize aggregate.
19. Sweep and clean pavement thoroughly.
20. Run 2 passes over pavement with plate compactor (use rubber protection mat under compactor to prevent chipping of paver surfaces).
21. Refill gaps, sweep pavement.

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