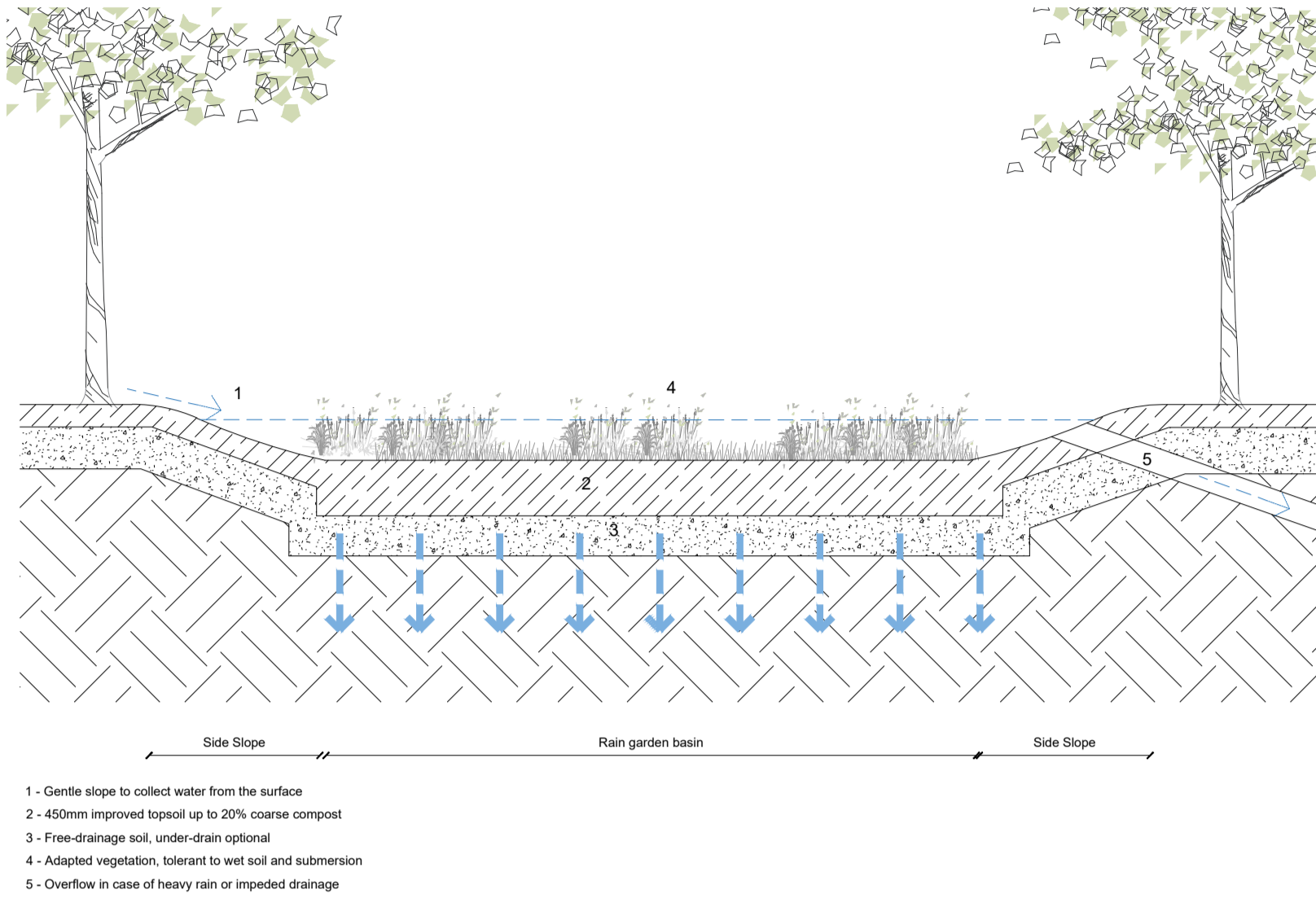


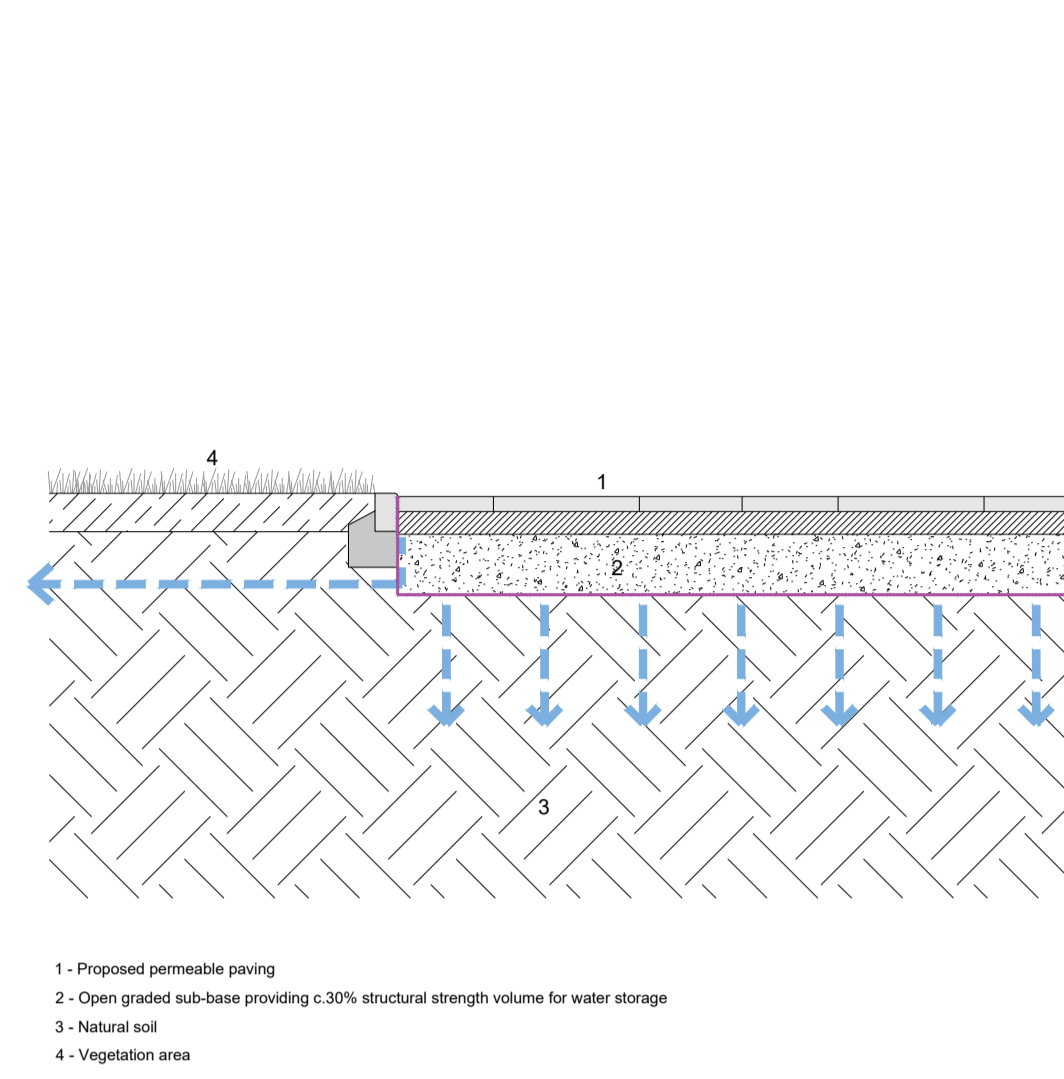
BARNHILL GARDEN VILLAGE

Sustainable Drainage Systems - Details

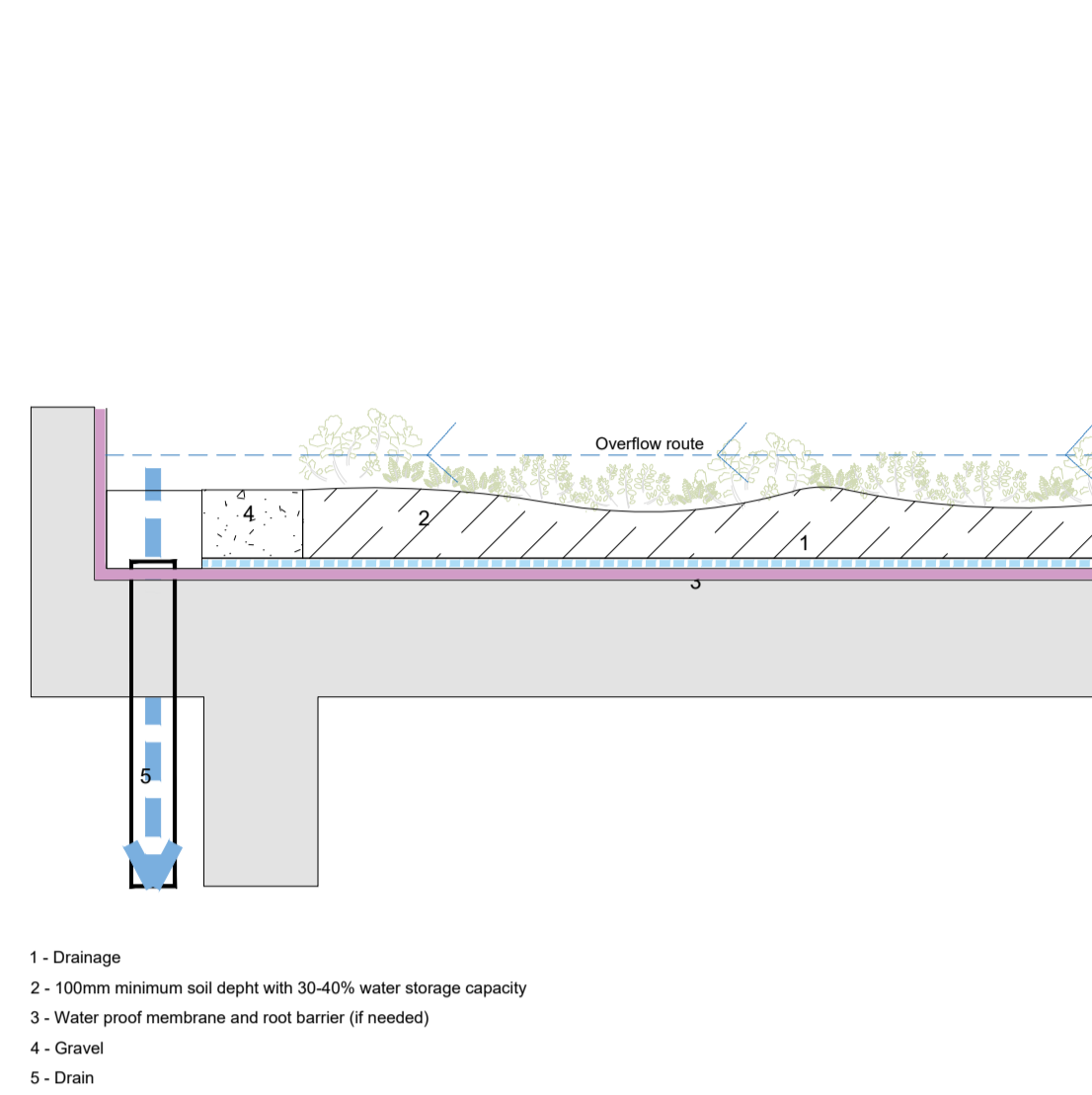
DETAIL 1. RAIN GARDEN
sc 1/50



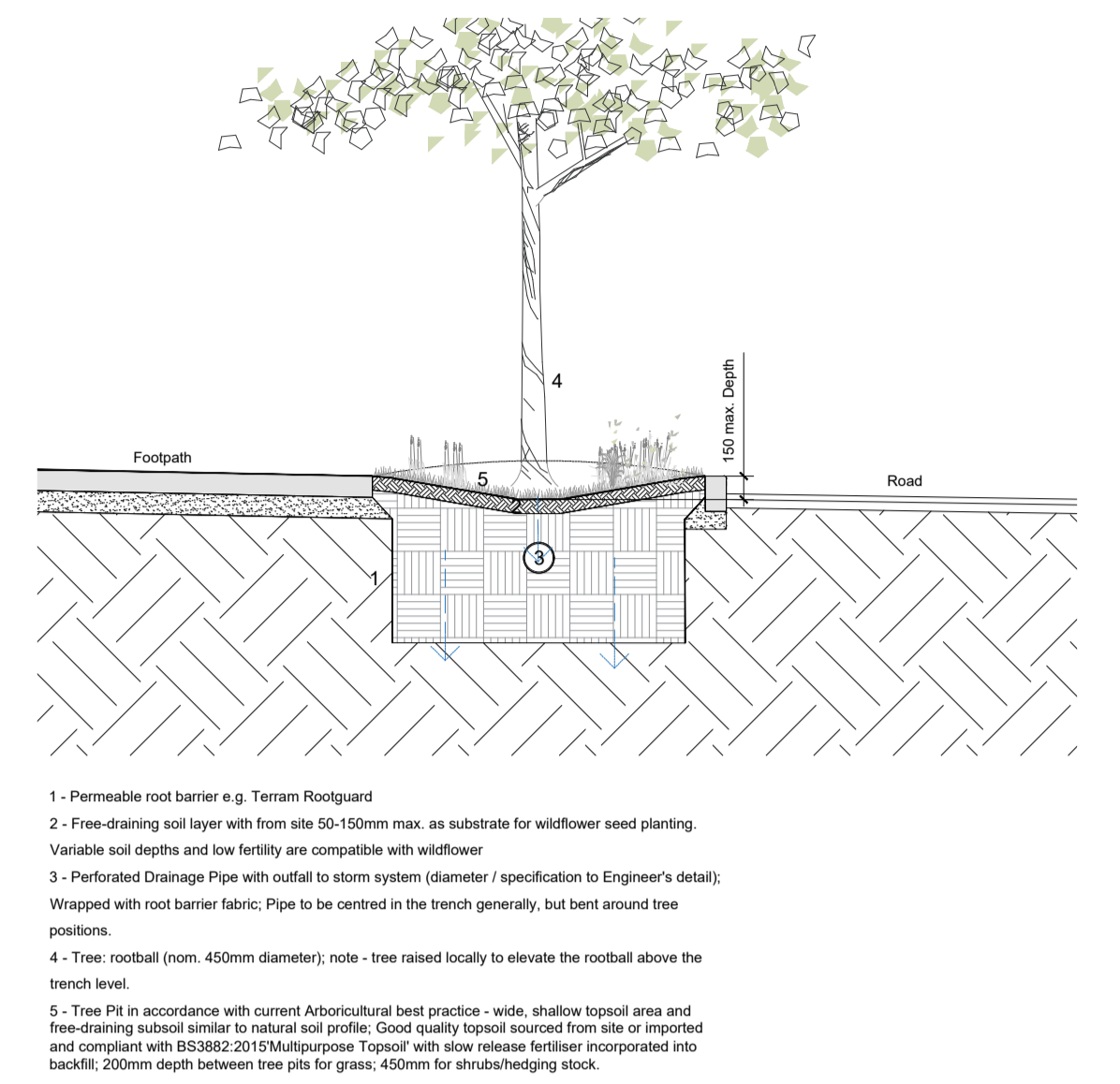
DETAIL 2. PERMEABLE PAVING
sc 1/50



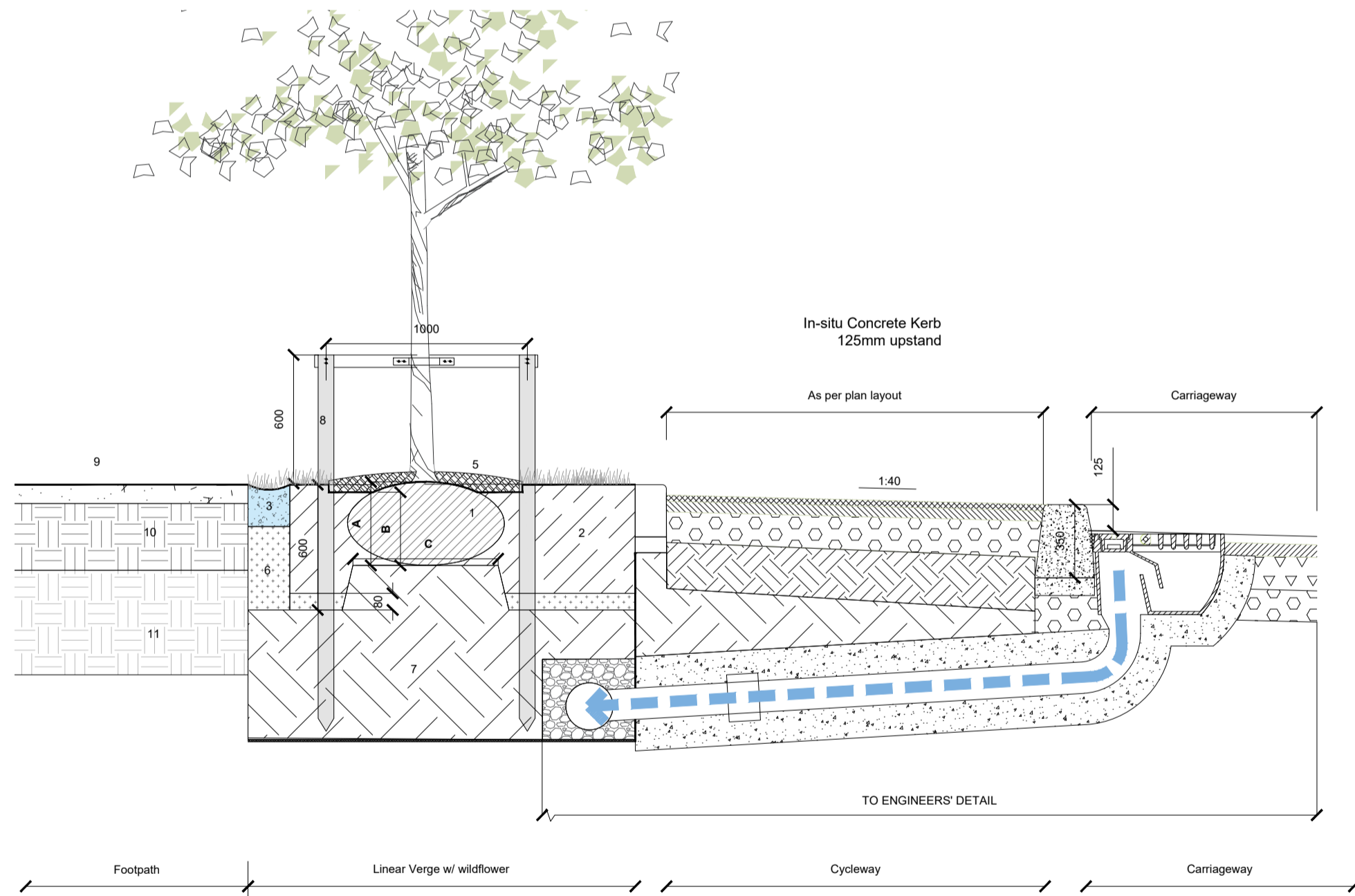
DETAIL 3. GREEN ROOF
sc 1/25



DETAIL 4. INFILTRATION STRIP/ TREE PIT - CROSS SECTION
sc 1/50



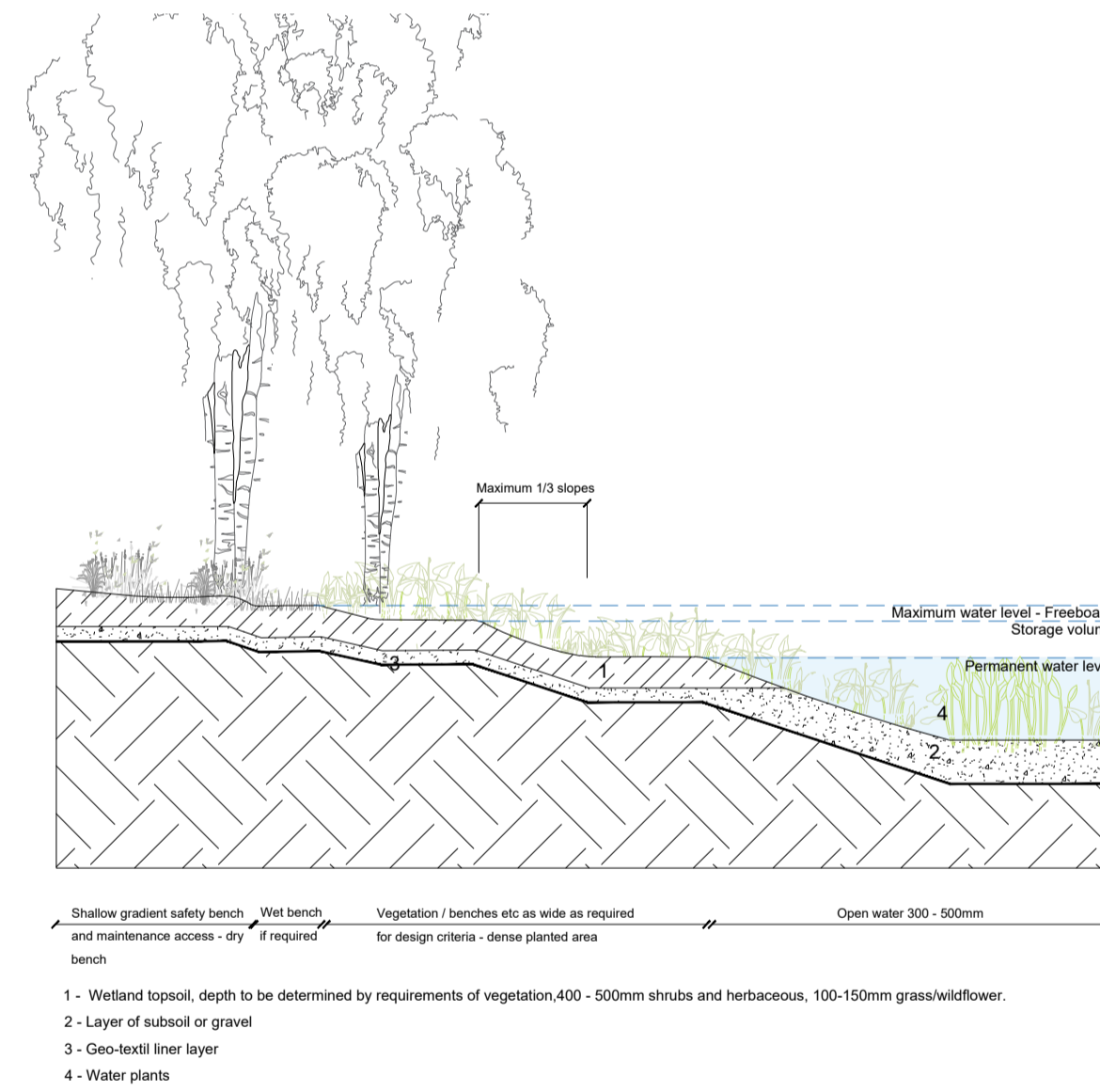
DETAIL 5. SUDS - WATER DRAINAGE FROM HARD SURFACE AS WATER SOURCE FOR TREES
sc 1/25



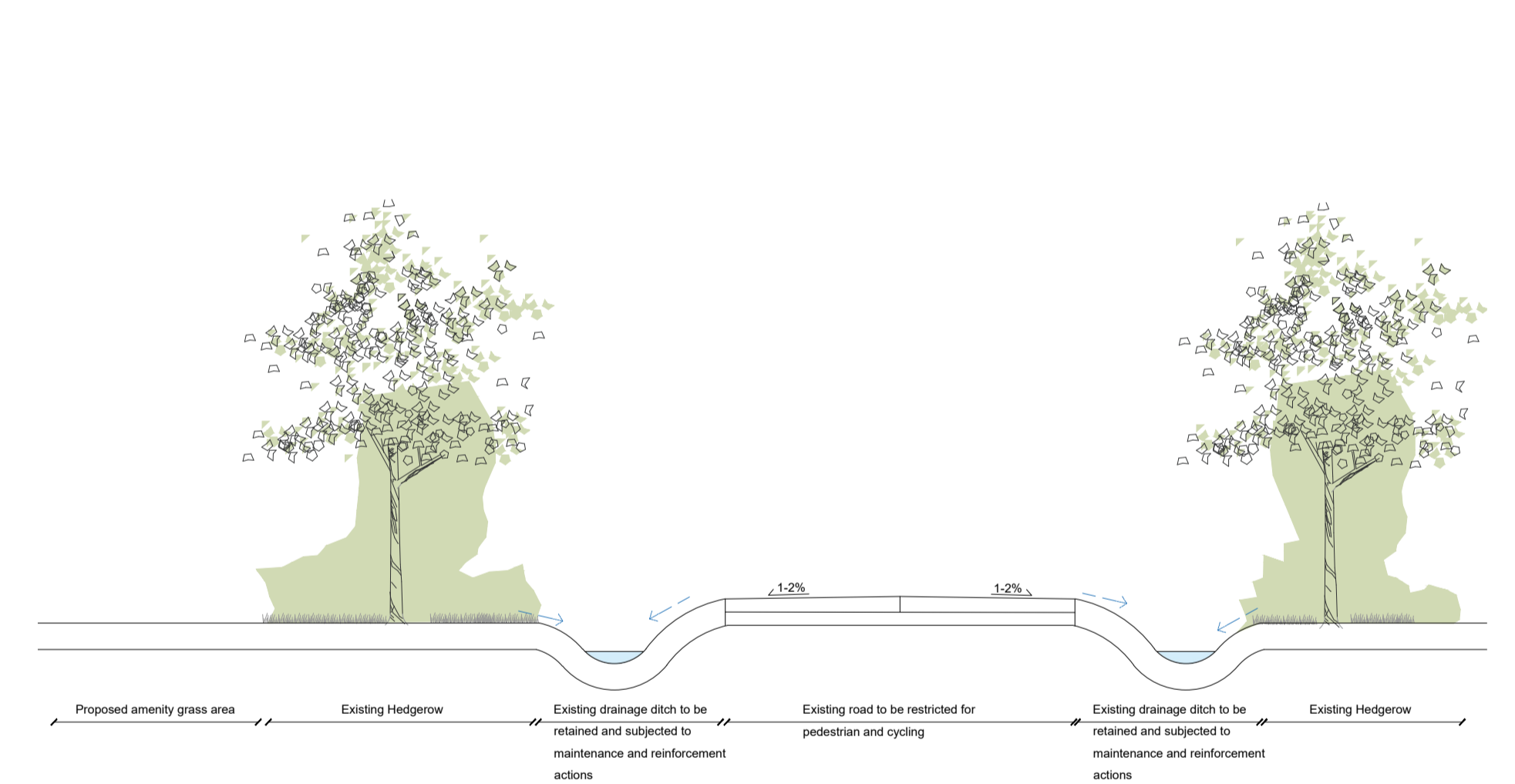
SuDS Concept:
Water drains from paths to provide water source for trees and other planting in pit. Water rises through subsoil through capillary action and becomes available for use by the trees.

Cycleways and roads can be integrated if required, water collected in gullies and fed into tree pit through perforated pipe; otherwise as above.

DETAIL 6. STANDARD WETLAND DETAIL
sc 1/50



DETAIL 7. EXISTING DITCHES
sc 1/100



- Tree rootball (nom. 450mm diameter); note - tree raised locally to elevate the rootball above the rain garden level.
 - Good quality topsoil sourced from site with slow release fertiliser incorporated into backfill; 200mm depth between tree pits for grass; 450mm for shrubs/hedging stock
 - Filter drain with 200mm topsoil to direct water into subsoil (4).
 - Free Draining Fill / Subsoil (to proposed levels and falls).
 - Bark mulch, 75mm depth.
 - 80mm layer of farmyard manure or a suitable compost material as approved by ER.
 - Free draining subsoil / structural subsoil with drainage capacity.
 - Double stake and crossbar; timber uprights 75mm dia. and crossbar min. 75x35mm; crossbar attached to uprights with timber screws; 40mm min. Nylon Reinforced Rubber Tree Tie strapping and flatback tree pad (70x42x22mm min.) to be attached using screws and washers.
 - Concrete Paving to engineer's detail
 - As-Built Linear Tree Pit Structural Fill (Built to original road layout)
 - As-Built Linear Tree Pit Structural Tree Soil (can function as additional rooting space).
- TREE PIT DIMENSIONS:**
A. Depth equal to rootball diameter
B. Rootball diameter minus 50mm to accommodate root flare
C. Width equal to diameter of rootball
- Above detail developed with input from Arborist based on recent research and experience.

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G / 27/06/22	SuDS - Details	PS/AP / JG
REV DATE	REVISION	DRAWN CHECKED

CLIENT	Alanna Homes & Alcove Ireland Four Ltd.
PROJECT TITLE	Barnhill Garden Village - Proposed development at Barnhill, Clonsilla, Co.Dublin
PROJECT ARCHITECT	CDP Architects / CWOB Architects / Delphi Design
SHEET TITLE	Sustainable Urban Drainage Systems Details
SHEET NO.	21154_LP_G_SuDS_D
SHEET SIZE	A1
SCALE	as shown
REVISION	G
STAGE	Planning Stage
DATE	June 2022