New Tree

The root neck of the tree is placed at the same level as in the nursery. The root ball rests on the structural soil.

Macadam 4/8 mm, about 50 mm thick (level with surface grid)

Pavement / superstructure

Geotextile utility class N3

Tree support

Macadam 2/6 mm with 25% by vol mixture of 1 part nutrient enriched biochar & 1 part compost

Leveling bearing layer under geotextile, 50 mm macadam 8/11 mm

Surface grate

Tree pit foundation

Roadway

Variable

150 50
50
100
600

Terrace

Loosen subsoil terrace, 200 mm

Conduit lines in structural soil protected with geotextile, backfilled with gravel material as described (schematically illustrated)

Geomembrane LPDE thickness 0.5 mm

Aerated bearing layer 150 mm macadam 32/63 mm

If the subsoil terrace is dense and / or muddy, drainage is added which is connected to existing stormwater system or a macadam ditch for the transport of water. (Schematically illustrated)

Terrace has 1% slope for drainage

50 mm layer of biochar only

Structural soil: 600 mm macadam 90/150 mm with soil type B or enriched biochar flushed down into the gaps

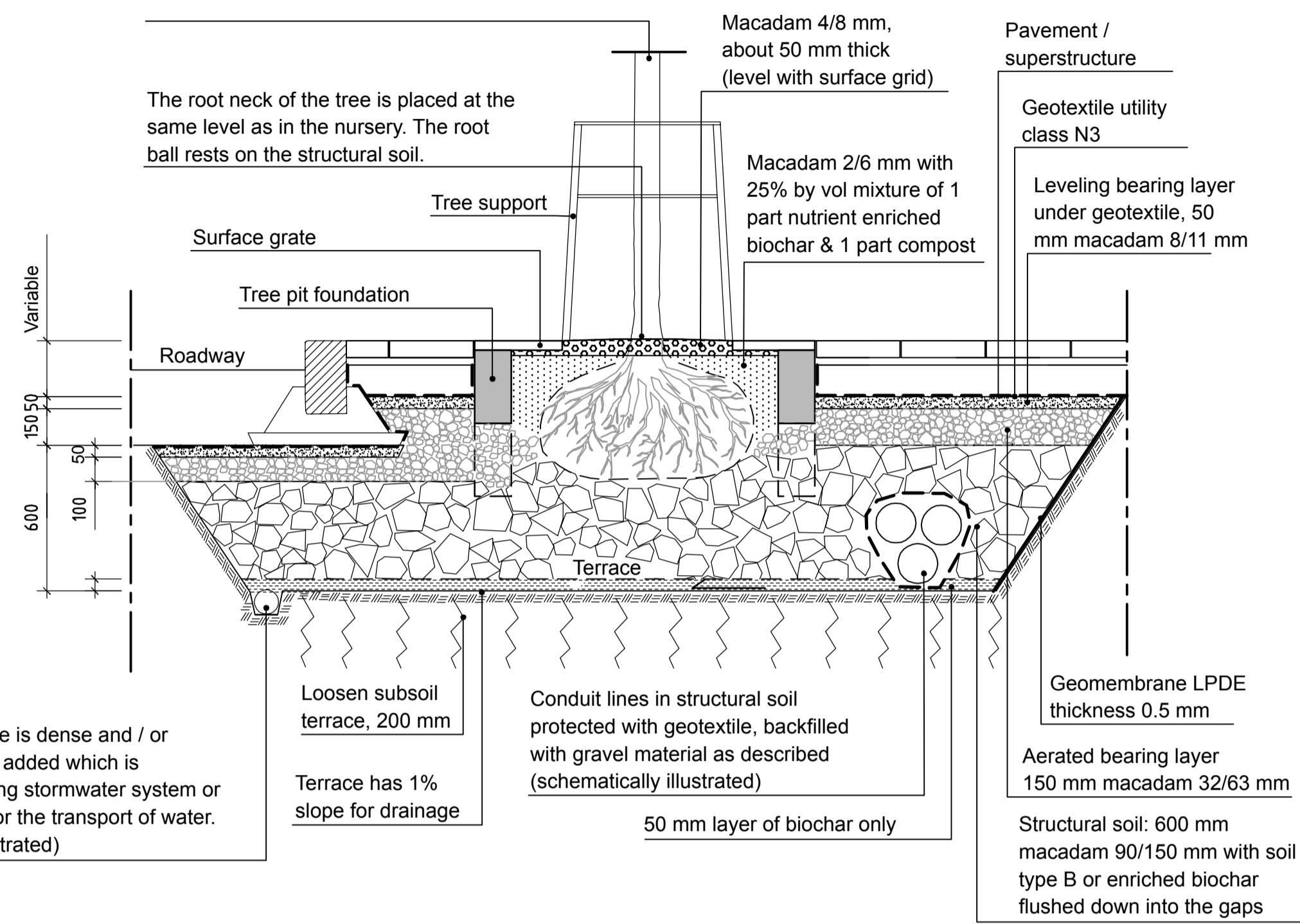### NEW PLANTING - TREES IN PAVED AREA WITH STRUCTURAL SOIL
PRINCIPLE SECTION B-b
SCALE 1:20

REMARKS:
The subsoil terrace may require adaptation. Dense terraces may require drainage and highly permeable terraces may need to be sealed. The subsoil should be loosed if greater permeability is desired in a compacted terrace surface. Plant soil type B is specified according to Stockholm city's grain distribution curve. A soil with too much clay or organic matter will be difficult to flush down into the gaps between the structural soil stones.
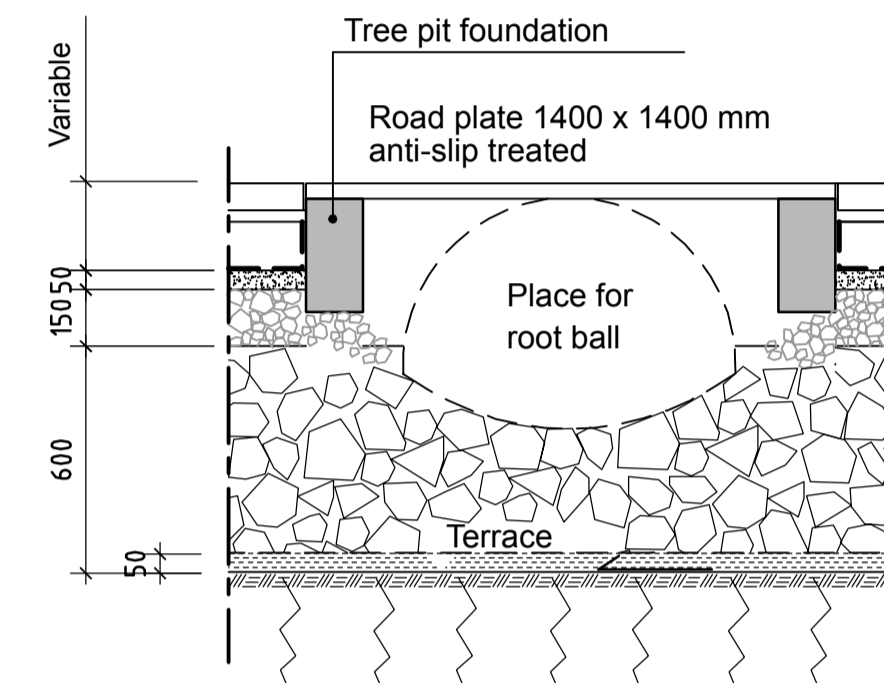
Downspout output

Surface grate

Pavement gutter

Aeration well

Street / Roadway   Curb
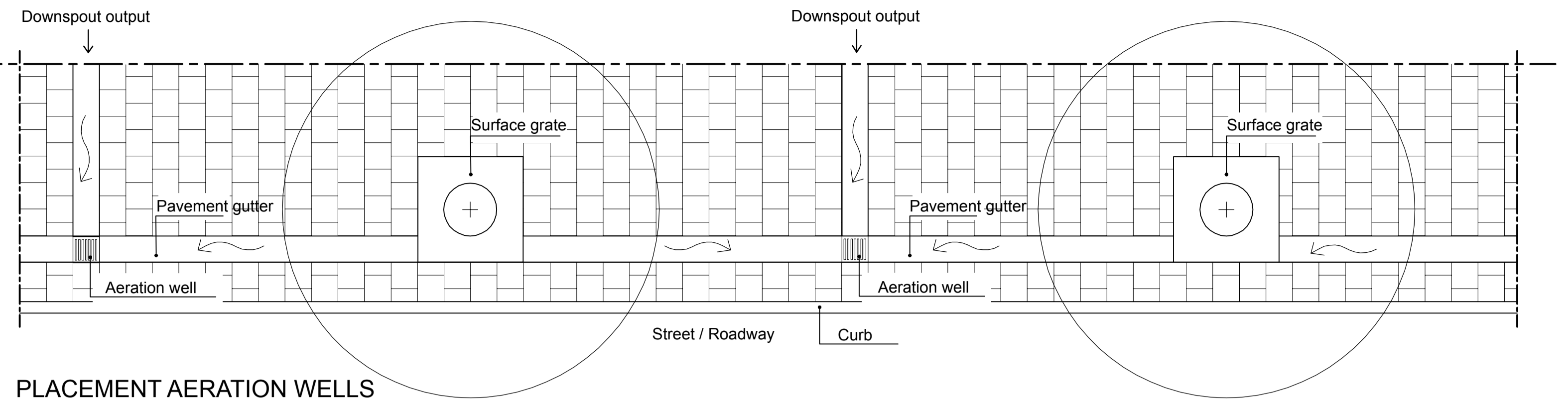
PLACEMENT AERATION WELLS
PRINCIPLE DETAIL
SCALE 1:50
REMARK
Gutter valleys and aeration wells are adjusted to ground height.

Tree pit foundation

Road plate 1400 x 1400 mm anti-slip treated

Place for root ball

Variable

150 50
600
50

Terrace

NEW PLANTING - PLACE FOR TREES FOR LATER PLANTING
PRINCIPLE DETAIL
SCALE 1:20

Stormwater drain grate, straight or scaled version, to allow water and gas exchange

Construction for height adjustment

Air holes are placed at the same height as the aerated bearing layer

Geotextile is folded up against the cover

Aeration well is placed in the structural soil to supply air and stormwater to this layer. One well per tree is needed.

The aeration well with holes in the bottom is positioned on 2/6 mm or coarser macadam
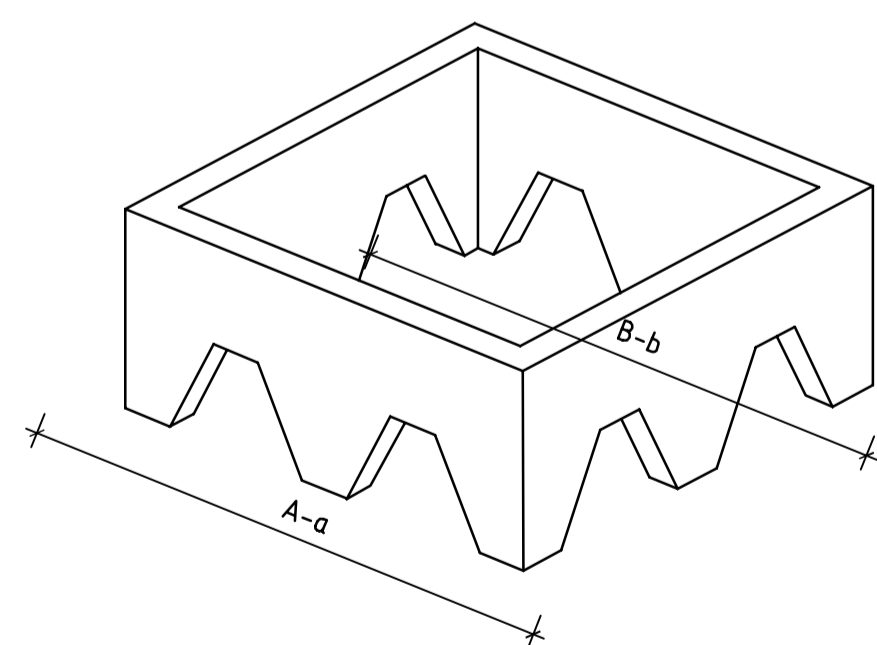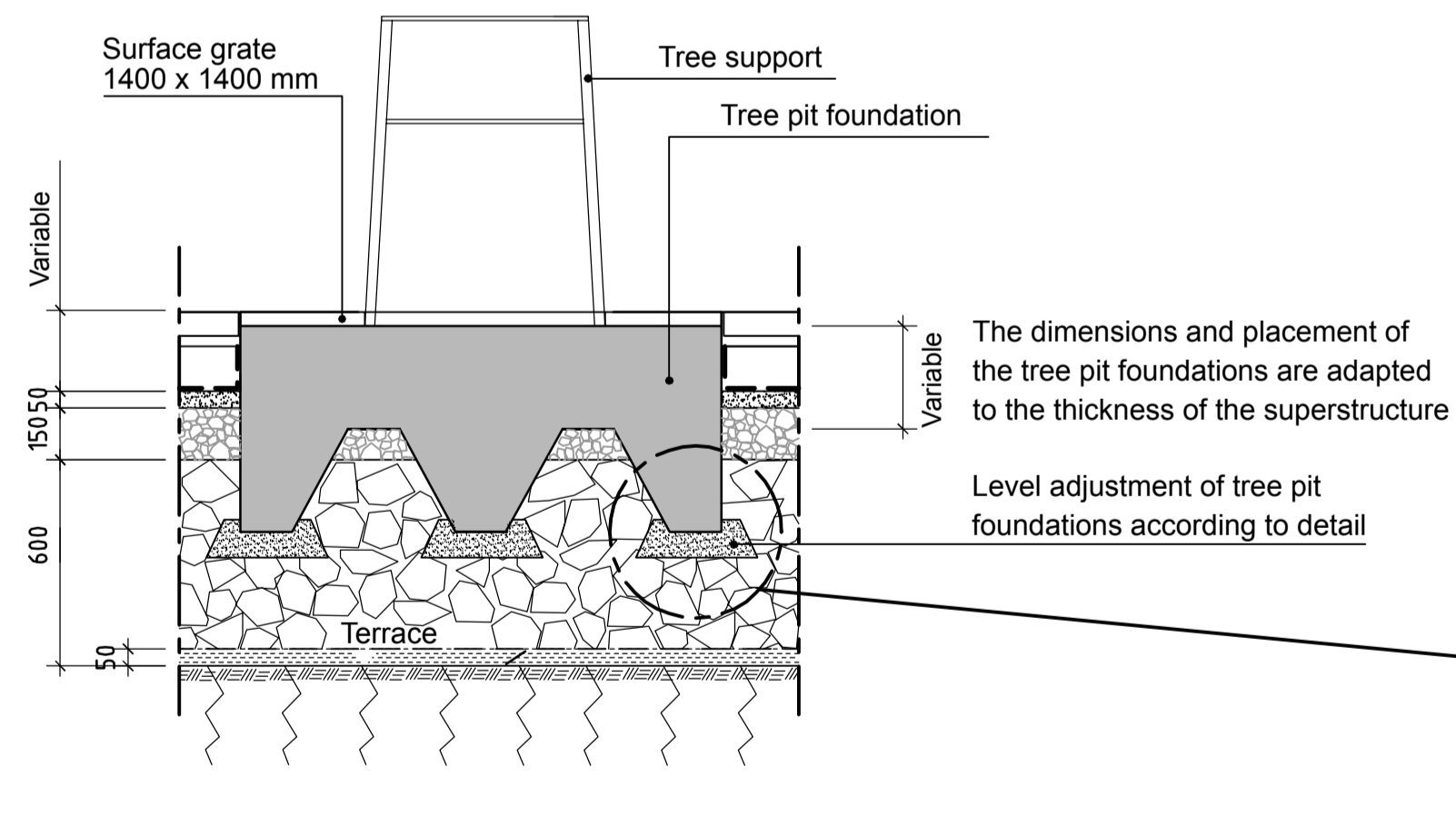
Variable

150 50
600
50

Terrace

AERATION WELL
PRINCIPLE DETAIL
SCALE 1:20

REMARK
The aeration well is placed at a low point so that water flows toward it. Sand trap volume is 60 liters.

TREE PIT FOUNDATION
SECTION MARKS

B-b
A-a

Surface grate 1400 x 1400 mm

Tree support

Tree pit foundation

Variable

Variable

150 50
600
50

Terrace

The dimensions and placement of the tree pit foundations are adapted to the thickness of the superstructure

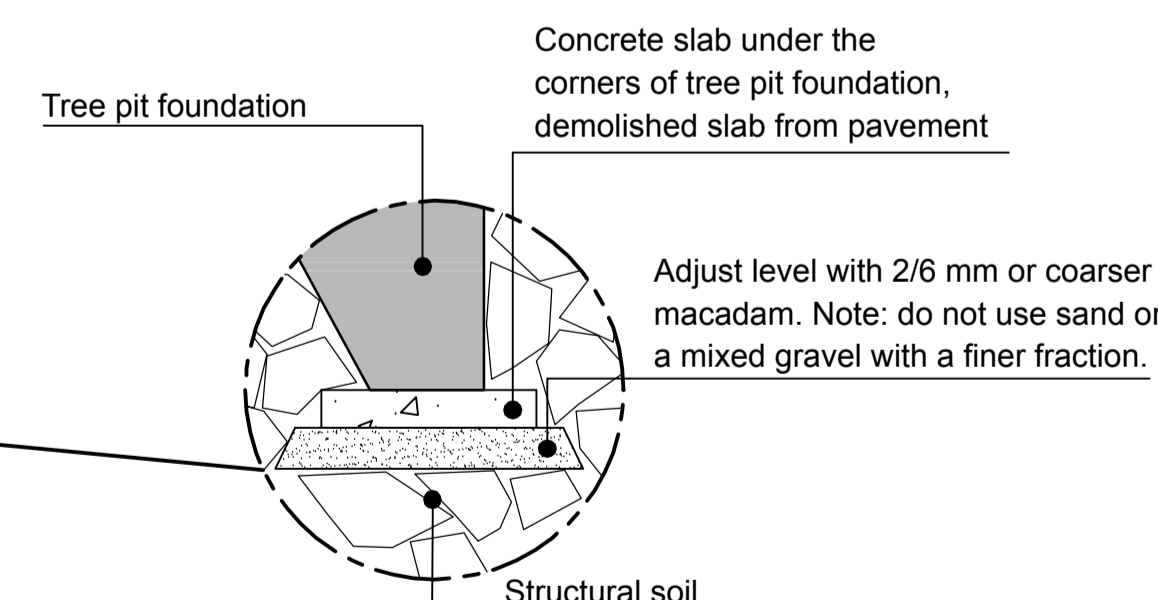Level adjustment of tree pit foundations according to detail

NEW PLANTING - TREES IN PAVED AREA WITH STRUCTURAL SOIL
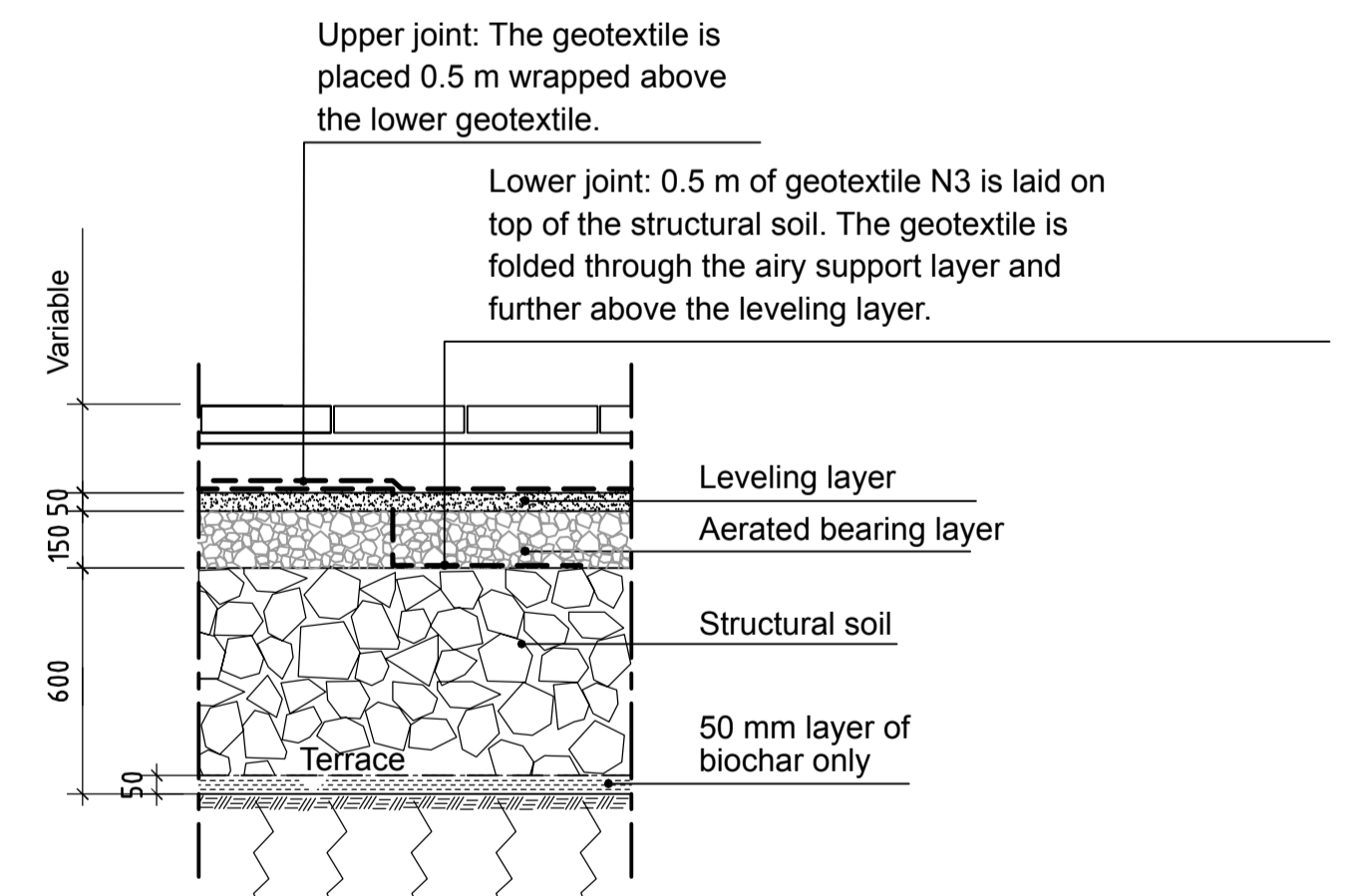PRINCIPLE SECTION A-a
SCALE 1:20

REMARKS:
The height of the upper finished edge of the tree pit foundation shall ensure that the superstructure's mixed gravel layer does not come into contact with the plant bed. The tree pit foundation shall be placed at such a level that aerated bearing and structural soil layers fall into the cavities of the tree pit foundation.

Concrete slab under the corners of tree pit foundation, demolished slab from pavement

Tree pit foundation

Adjust level with 2/6 mm or coarser macadam. Note: do not use sand or a mixed gravel with a finer fraction.

Structural soil

TREE PIT FOUNDATION, LEVEL ADJUSTMENT
PRINCIPLE DETAIL
SCALE 1:10

Upper joint: The geotextile is placed 0.5 m wrapped above the lower geotextile.

Lower joint: 0.5 m of geotextile N3 is laid on top of the structural soil. The geotextile is folded through the airy support layer and further above the leveling layer.

Variable

150 50
600
50

Terrace

Leveling layer

Aerated bearing layer

Structural soil

50 mm layer of biochar only
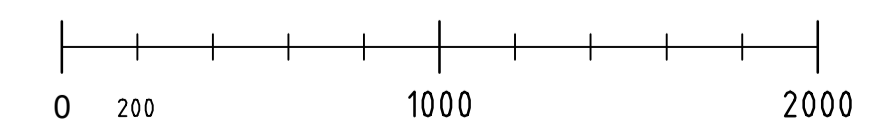
PRINCIPLE DETAIL
SCALE 1:20

REMARK
A dam for storm water is implemented by joints in geotextile in the case of a heavily inclined terrace.

0   200   1000   2000

Scale 1:20
Original format A1

Status	Datum	2017-11-08
TH-TYPRITNING	Godkänd	Britt-Marie Alvem

Stockholms stad   Trafikkontoret

TREES IN PAVED AREAS WITH STRUCTURAL SOIL

SECTION, PLAN

Skala	Ritningsnr	Reg.
1:10, 1:20, 1:50 (A1)	THVB020	