

STRATACELL TREE PIT SYSTEMS

SPECIFICATIONS

1. MATERIALS

1.1 Structural Soil Modules

The structural soil modules shall be CityGreen StrataCell SC250.

The structural soil matrix shall have a minimum compressive strength of 500kPa to accommodate loads to AS5100.2 (W80 wheel load).

The structural soil modules shall be 508mm long x 508mm wide, and 250mm high, with secure vertical and lateral interlocks. The modules may be assembled up to 1500mm high.

PROPERTY	VALUE
Material	Recycled glass reinforced polypropylene
Dimensions	508mm L x 508mm W x 250mm H
Volume M ³	0.0645
Number per M ³	15.5
Void Space	94%
Compressive Strength, assembled	500 kPa minimum

1.2 Drainage

Perforated drainage pipes shall be enclosed in filter wrap and meet specifications of local government manual.

1.3 Aeration

Aeration System shall be CityGreen ArborVent pipe system with couplings, risers, and pavement grates.

1.4 Root Barriers

All root barriers shall be CityGreen Re Route™ linear ribbed barriers.

Linear barriers shall have integral, moulded vertical ribs to prevent root swirl.

Typical Properties of linear ribbed barrier Re Route™.

PROPERTY	VALUE
Material	High density polyethylene
Dimensions	260mm W or 520mm W, 30m continuous roll
Rib Size	15mm high, 18mm wide
Rib Spacing	200mm
Material Gauge	1.0mm

1.5 Geo-composites

Separation layer shall be provided between structural matrix and pavement base course. Separation layer to be CityGreen Geo Net.

PROPERTY	VALUE
Material, outer	Non woven filter fabric
Material, inner	Synthetic reinforcement grid

2. INSTALLATION

The proprietary materials included in the specification shall be provided and installed in accordance with the project requirements and to independent engineering specifications and details.

- 2.1 Treepit shall be excavated to dimensions detailed, plus 200mm in length and width. Sides of pit to be clean, straight, and vertical.
- 2.2 Base of treepit to be levelled and compacted with plate compactor. Drainage pipes, if required, to be placed at correct levels.
- 2.3 A drainage layer of clean aggregate to be placed and levelled if required by engineer.

- 2.4 Sub-grade CBRs at base of treepit shall be tested, and submitted to qualified project engineer for verification of pavement design.
- 2.5 Structural soil modules to be installed in layers and interconnected to layout shown in treepit detail. Additional layers to be securely connected vertically and laterally. (Refer Structural Cell Positioning diagram.)
- 2.6 ArborVent aeration pipes shall be installed within the top layer of structural soil modules, with risers positioned to suit pavement surface.
- 2.7 Treepit soil to be spread to fill voids, and vibrated with plate compactor. Once all voids are filled, the surface is to be levelled.
- 2.8 Linear ribbed root barriers shall be installed vertically, to edges of treepit opening, with ribs facing the tree. Joints shall be overlapped a minimum of one panel, with ribs interlocked, and taped on both sides with proprietary Re Route™ tape. Surfaces must be clean and dry.
- 2.9 Load treepit opening with soil to 50%. Top edge of linear barriers must not be covered with soil.
- 2.10 Geonet separation layer to be placed over StrataCell matrix, with 150mm over lap at joins.
- 2.11 Pavement sub-base material to be placed and compacted to engineer specifications in preparation for pavement.
- 2.12 Install the specified support frames or treegrilles to treepit opening.

2.13 Fit Arborvent grates and complete pavement.

2.14 Tree is to be planted and maintained to arboricultural standards.

