

# CASE STUDY



Client: **RC Taylor**  
 Location: **Crouch, United Kingdom**  
 Product: **Bodcell™ 220/200 Tree root protection**  
 Application: **Vehicle access road over tree roots**



**THE PROBLEM:** The access route to a new housing development required the construction of a roadway which crossed over an area where tree roots were close and at surface level. In order not to damage the roots, Bodcell™ was specified with the dual purpose of offering a strong stable base for the access routes whilst protecting tree roots from damage.

**THE SOLUTION:** Boddingtons' Bodcell™ cellular confinement system was used as it offered the perfect solution for tree root protection where a road or driveway is required whilst preventing soil compaction and protecting tree roots. Bodcell™ cellular confinement system ensured that downward forces by vehicles are spread laterally reducing loads on the underlying soils. Without the cellular system, the surface would have become compacted and rutted with the forces pushing downwards damaging the tree roots and possibly killing the trees.

Bodcell™ was installed onto the level surface on top of a geotextile. The cells were filled with a type 1 road stone and compacted flat. A geotextile and binding layer were installed on top of the cells and the surface finished with small angular gravel.



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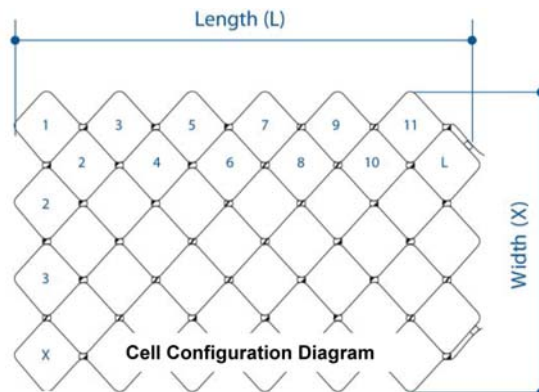
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**CONCLUSION:** The permeable cells allowed natural drainage and stopped compaction from vehicle tyres. The cells confined the stone fill ensuring that any downward forces were spread laterally. Bodcell™ ensured that the access road caused no damage to the tree roots.



### PRODUCT SPECIFICATION:

PHYSICAL CHARACTERISTICS:	See Notes*	Measurement
Cell nominal diameter		220mm
Cell depth	1	200mm
Panel length (nominal)	1	6m
Panel width (nominal)	1	3m
No. of cells in length (L)	2	44
No. of cells in length (W)	2	14
Cell length (nominal)		264mm
Cell width (nominal)		218mm
Colour	1	Dark Grey
Panel weight (nominal)		20kg
MECHANICAL/HYDRAULIC PROPERTIES:	6	
Cell wall tensile strength	3	20.7kN/m
Cell junction peel strength	4	10kN/m
Cell wall permeability	5	45l/m <sup>2</sup> .sec



- \* 1. Other sizes and colours are available to order.
- 2. See the diagram for an explanation of cell numbering and orientation.
- 3. Results derived from Wide Width Tensile Test (EN ISO 10319).
- 4. Internal Test method.
- 5. Results derived from a single cell wall Permeability Test (EN ISO 111058).
- 6. Results quoted are family mean values derived from testing over periods of time.



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**BODDINGTONS AUSTRALIA PTY LTD** ABN 13 076 121 572  
 Units 1-3, 42-46 Vella Drive, Sunshine West, Melbourne, Australia VIC 3020  
 Tel: +61 (3) 9310 2100 Fax: +61 (3) 9310 2466  
 Toll free: 1800 357 211 (Australia Wide)  
 e.mail: boddsales@boddingtons.com.au www.boddingtons.com.au