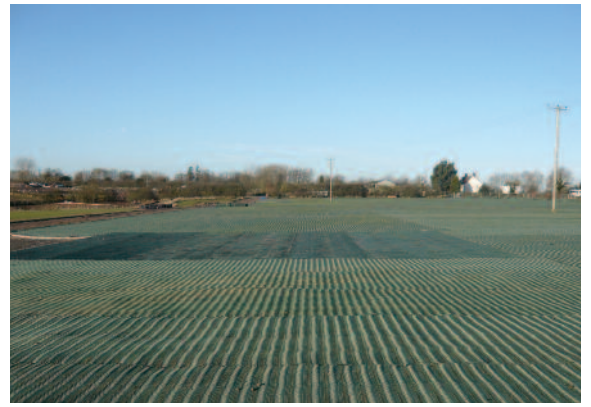


CASE STUDY



Client: Twycross Zoo
 Location: Twycross, Atherstone
 Contractor: Links Associates
 Application: 42,000m² Reinforced Grass Car Parks



PROJECT RATIONALE:

Twycross Zoo has been open since 1963, attracting in excess of 450,000 visitors per year. In order to cater for this number and to increase future visitors a major refurbishment program was planned. This meant that the current visitor facilities were renewed and improved and construction on the new visitor centre was planned to start early 2009 and be finished by 2010.

The majority of the existing visitor car & coach parking facilities were in the precise location of the new visitor centre development and therefore required relocation. These new car & coach parks and their access roads were required before commencement of the new development to ensure that zoo remained open throughout.

THE SOLUTION:

42,000m² of GrassProtecta[®] was specified to be installed directly onto the new designated grassed car parking areas (some areas were existing overflow, to be further reinforced, other new areas previously non-trafficked grazing fields). A bespoke application was employed utilising a specialist Geogrid & GrassProtecta[®] Heavy 2kg to reinforce the grass surface and allow the grass to grow through the mesh to create a naturally looking grass car park that would be capable of withstanding car and light vehicle applications without causing smearing, wear and rutting.



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THE SOLUTION CONT'D

GrassProtecta[®] met the requirements of 'Source Control' conditions as part of the requirement for a SuDS application, in that the new surfaces must be able to meet with an environmental requirement to enable water to permeate either in the surface/water table and/or be carried at source to the new wetlands zone on site (Several large ponds surrounded by naturalised wetland environment) which were constructed as part of the development. This ensured that none of the surface water had to be directed into off-site drainage systems which could have had an influence of possible flash floods in the area.

GrassProtecta[®] was used in conjunction with BodPave[®]40 which was specified for the reinforcement of the coach parking areas and vehicle access routes through the park.

PRODUCT SPECIFICATION:

PHYSICAL CHARACTERISTICS:		HEAVY 2kg/m ²
Structure		Oscillated
Polymer		HDPE (80% Virgin, 20% Recycled)
Colour		Green
UV Stabilised		Yes
NOMINAL DIMENSIONS:		
Roll Width		2m
Roll Length		20m
Roll Weight		80kg
Weight per liner metre		4kg
Weight per square metre		2kg/m ²
Thickness		14mm
Mesh Aperture (Diamond:Oval)		3:1 ratio
TECHNICAL CHARACTERISTICS:		
Measurement	Method	Results
Tensile strength (MD)	ISO 10319	16kN/m
Yield point elongation (MD)		35%
Residual thickness @ 500 kPa	ASTM D1621	60%
Slip risk PTV value	BS7976: 1-3	>40 (low slip)