SuDS Permeable Paving

Emergency Turnaround Areas, Truckcell, M1 - J20 to 21, Leicestershire, UK

abg creative geosynthetic engineering

Case Study

Project Description

Seeking new ways to improve traffic flow and ease congestion on the motorway network, Highways England is moving forward with the creation of Emergency Turnaround Areas (ETAs). Used in conjunction with removable gates within the central reservation, ETAs enable Highways England, in the event of an accident, to quickly bring traffic management procedures into operation. Each ETA measures 90m2 and extends the total turning area on the carriageway sufficiently to allow HGVs to turn around and transfer through the central reservation to safety and to continue their journey. This minimises the length of time that the carriageway is required to be closed. The M1 in Leicestershire is particularly vulnerable to congestion because of the unusually long distance between junctions 20 and 21 (approximately nine miles).

The Challenge

As a result of the distance, the scheme required six ETAs along both carriage ways on this section of motorway (three northbound and three southbound).

In developing the ETAs Highways England required a surfacing option that was capable of carrying high-load HGV traffic, offered a permeable free draining surface and would discourage motorists from utilising ETAs as lay-bys. In-situ concrete was quickly ruled out through concerns over future maintainability, and grass concrete blocks would require significant traffic management measures due to the weight of the units.

Project Information

Client	Highways England
Contractor	Geoffrey Osbourne (Optima Framework Contractor)
Consultant	Optima Infrastructure Management
Products	Truckcell
Quantity	540m^2
Benefits	• Rapid installation • Easy handling • Minimal traffic management required during delivery and installation

ABG Truckcell with grassed finish

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The Solution

Optima selected **Truckcell** as their preferred surfacing material. **Truckcell**, manufactured entirely from recycled plastic, provides a lightweight solution well within the health and safety manual handling limits. This allowed it to be delivered to the stock holding area and then transferred to site as needed.

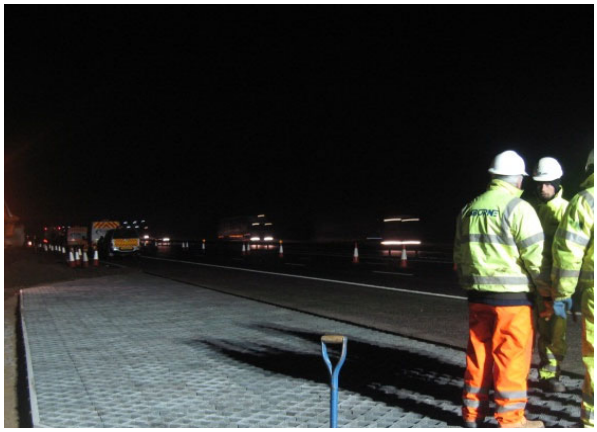
Truckcell units were placed by hand thus eliminating the need for heavy plant at each works location and also minimising the possibility of disturbing the bedding material. The cells were then infilled with clean topsoil. One of the attractions of **Truckcell** was its ability to allow vegetation to establish within the ETA.

The installation of the **Truckcell** was completed within four weeks with minimal disruption to traffic despite losing six days installation time due to bad weather.

Truckcell delivered on pallets

The ABG Service

ABG provided a full design support service to the client to facilitate using **Truckcell** effectively for the surfacing.



Truckcell units handled and installed manually, minimising traffic management needs

Truckcell infilled with topsoil and grass seeded.

Contact ABG today to discuss your project specific requirements and discover how ABG past experience and innovative products can help on your project.

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