



Case

STUDY

TTE & STRATAWEB
M1 Underpass
Reinforced Ground Solution



MARKET SECTOR:
HIGHWAYS



LOCATION:
Long Lane, Dunstable,
LU5 6HN



MERCHANT:
KEYLINE



CONTRACTOR:
TOPBOND PLC GROUP

The

BACKGROUND

This project involved engineering a solution that would lower the floor height through the underpass. The route joins fields either side of the M1 in Bedfordshire and allows the local farmer to access with all types of machinery.



Our Client's

REQUIREMENTS

The excavation depth was limited by an underground gas pipe and the solution would need to protect this, but be as shallow as possible. Our Engineering Team had worked on a similar project previously, that had achieved the last objective but to solve the limited depth a combination of materials was needed.

The height concern was due to farm machinery using the underpass and needing more head room clearance. The proposal was to remove the existing concrete surface and some sub-base stone and then rebuild with a new surface at a lower height.



Our Value Engineered

SOLUTION

To create the necessary sub-base strength, 150mm Strataweb was used to confine and reinforce the sub-base Type 1. Over this an additional 60mm of Type 1 was laid, then a bedding layer of grit and finally TTE units which would be filled with gravel. The total depth of the whole structure was 300mm, that would keep height minimal but be strong enough for the vehicles using the route. The work was completed by Topbond plc Group in August 2023.

How Geosynthetics Ltd

ADDED VALUE

Our Engineering Department has been created to give free technical support and to provide solutions involving our range of products.

The Cross Section put together for this specific application by our in-house Engineers has enabled a number of client's to use both the TTE and Strataweb to protect gas mains and in turn be able to continue trafficking the surface.

