

# Oxfordshire Recycling Centre Restored with Teretek®



## INDUSTRY

Industrial

## STRUCTURE

Home Waste and Recycling Centre

## PROBLEM

Unstable ground and damage to road surfaces

## LOCATION

Oxfordshire, United Kingdom

## DURATION / YEAR

2 days, November 2021

## TECHNOLOGY

Teretek®

## BUSINESS UNIT

Mainmark UK

## Summary

A busy waste recycling centre in Oxfordshire provided an eco-friendly waste disposal service for the public, but in 2021 a road within the site required serious attention. Open seven days a week, the recycling centre saw large volumes of traffic and as such the frequently used road within the premises had become damaged. Areas of the road and car parking area had started to degrade, with holes appearing on the surface, affecting 100m<sup>2</sup> of road.

The damage was due to a defective drainage system causing the washout of fine soils and the loose made ground to weaken as a result of the excessive water leakage, whilst an abundance of burrowing rats had added to the instability. Previous efforts to resolve the problem were unsuccessful. Concrete solutions were explored but were not effective.

The client was seeking a more efficient, longer-term solution that was sustainable, and would not affect either the watercourse or compromise the drainage system. Mainmark was able to provide a non-invasive, cost-effective solution to fill the voids, improve the ground and re-support the road.

## Objectives

Mainmark was required to strengthen the ground, fill any voids, and reinstate the damaged asphalt road to a safe and functional state. The client also required the solution to be long-lasting and environmentally inert, without compromising the drainage systems. The work needed to be completed within a short period, to ensure that normal service at the centre was not affected.



## Oxfordshire Recycling Centre Restored with Teretek® continued

## Solution

To effectively resolve the issues, Mainmark used its Teretek® geopolymer resin injection solution, which was highly suitable for the project as it is a unique two-in-one solution that delivers both ground improvement and re-levelling. Teretek is also environmentally inert, so Mainmark was able to mitigate any negative impact to the surrounding area that traditional concrete methods would have caused.

To complete the reconditioning of the 100m<sup>2</sup> of affected road, Mainmark was required to drill 16mm holes in a grid pattern at 1.5m centres, reaching a necessary depth of 1m below the ground. To help ensure that the drainage system below was not affected by the works, drainage monitoring actively took place throughout to process.

Mainmark began the work within two weeks of the initial site inspection. The centre was closed to the public on the first day of works, allowing Mainmark's team to make significant progress. Not only was Mainmark able to remediate the issues thoroughly, but the team worked efficiently, and all work was completed within just two days ensuring that downtime for the centre was kept to a minimum. The road within the site was correctly restored and ready for public use, on time and within budget and the client was extremely pleased with the work.



Above: During resin injection

