

# Void filling vaults, Brewer St London

A property on Brewer Street in London included a number of redundant vaults used as coal sheds in the basement. The client wanted these sheds filling to secure the area and prevent deterioration.

## Project background

Brewer Street is a busy road in central London, the client needed a solution to fill five coal sheds with minimum disruption to the street and particularly its tenant in the property above the sheds, Cafe Nero. The sheds were deteriorating and a fill material would secure them and negate further erosion.

## Alternative solutions

The voids could be filled with a number of different materials such as foam concrete, but there were limitations due to the location and the requisite from the client. The street and location of the site were not in an area where major plant vehicles could operate which meant the client had to seek a non-cementitious solution.

## Geobear's solution

We proposed to use one of our expansive geopolymer materials to fill the voids. Our material could be pumped in from distance as access to the basement was quite restricted.

With our solution, we had a mobile unit stationed outside Cafe Nero on four overnight shifts to minimise disruption to the cafe and other businesses. We used a two-component material, pumped from our unit directly into the void; when the two components meet a reaction occurs which creates an expansive geopolymer fill material. The material was pumped into the site until the void was filled. The five coal sheds, which equated to 40 cubic metres was successfully filled and sealed in over four consecutive nights and sealed using wooden panels.



Geopolymer material during the installation process

## Why was Geobear chosen?

The Geobear solution was chosen as the disruption to the local area was minimal. We only had one mobile unit on-site throughout the works and using our hoses, the material could be delivered into the basement coal sheds via ventilation shafts from Cafe Nero above.

Furthermore, the client wanted to use a material that could easily be excavated from the site in the event that they found future use for the vaults. The geopolymer resin can be easily dug out using hand shovels, whereas cementitious fill would require plant machinery.



Difficult access