

**The Client:**

GWESPA ( Alfred McAlpine / Network Rail Western Territory Framework Arrangement for the Maintenance & Renewal of Earthworks & Structures )  
Designer - Tony Gee & Partners. Sub-contractor - Cosy Home Site - Howard Street, Shrewsbury. Project - Bridge Infill: Infilling of approximately 30 redundant structures ( where there is no longer a right of way or need for the structure ) to reduce maintenance liability.

**The Problem:**

Redundant structures ( eg; the railway that ran below was removed some time ago ) that support roads / footpaths / car parks. Cannot demolish as the roads provide access or structure is in use as car parking. These structures require regular inspection & maintenance unless they can be infilled from below. But how to ensure the brick arches that give the intrinsic strength, and other voids, are fully filled?

**The Solution:**

**Duratherm®** spray applied high strength foam is applied to the brick jack arches. The first 2-3 metres of the space are filled in with 6N fill, allowing the spray contractor in to a convenient sized space to apply the foam where needed. Then the remaining void in the middle is filled with expanding concrete.

**The Outcome:**

- All works can be carried out from below with no disruption to roads, footpaths or car parks
- No need to demolish the bridge
- No requirement for future inspection or maintenance

