



CARLETON ROAD BRIDGE DEVELOPMENT | SKIPTON



Over 900m³ of LECA® Lightweight Fill was installed for a new bridge development on Carleton Road, Skipton.

The purpose of this development was to create a NEW access road link to a new residential estate over the Eller Beck river. Due to the delicate ground conditions over this particular section; a lightweight fill solution was required to reduce vertical earth pressure and to create a robust foundation for what will become an active bridge for the residents. Creating a convenient new access road, whilst easing traffic congestion on the existing local roads.

LECA® lightweight fill was specified due to its robust engineering properties, whilst offering a key solution for the delicate groundwork conditions. LECA® Lightweight Fill has been applied on many bridge developments throughout the UK – providing an effective fill solution for retaining walls and bridge abutments.

For this particular development in Skipton, because of LECA® Lightweight Fill's lightweight nature, the vertical earth pressure impacting the structure was up to 75% lower than induced by the natural rock fill. Furthermore, the reduced earth pressure optimized the dimensioning of the supporting structures. Moreover, the application of LECA® Lightweight Fill as a backfill in these circumstances provided a cost-efficient solution, as a reduced number of walking floor trailers were required to deliver the 900m³ of LECA® Lightweight Fill when compared to traditional natural rock fill – where 60m³ and 70m³ could be delivered per truck - easing the traffic required for delivery and furthermore, this reduced the carbon emissions for the delivery of the material.

FACTS

Amount of material: 900m³ of [LECA®LWA \(10-20mm\)](#)

Interesting Fact: The purpose of this development was to create a NEW access road link to a new residential estate over the Eller Beck river.

Main Contractor: Eric Wright Civil Engineering Ltd