



## BALHAM TRAIN STATION | LONDON



Passenger volumes on the South London main line network (including Balham Station) have been excessive for many years and predicted to continue growing as the Capital continues to offer substantial employment opportunities. With Network Rail's implementation of their Route Utilisation Plan (RUS) to improve train

capacity and the related infrastructure, the core element was to increase the length of the trains from 8-cars to 12-cars thus adding more passenger capacity.

Lengthening the trains demanded the corresponding extension of platforms to facilitate safe passenger traffic. A programme of station expansion was scheduled and Balham station in South London is an example of the work carried out.

The sites and structure of these older stations and the close proximity to both domestic and commercial premises is a constant pressure when designing and constructing the extensions. Access in many instances is greatly restricted. At Balham the platform extension design was provided by consulting engineers Cass Hayward with VolkerFitzpatrick appointed as the main contractor. Works included major alterations to the station, improved access, ticket hall and passenger facilities.

Andy White of Cass Hayward explained that the Balham platform extension required a new wall structure to act as an abutment to carry the load from the bridge deck and as the embankment retaining wall. The tight confines of the new structure left a narrow gap where the weight of traditional fill would not have met the 120-year design life criteria, the lightweight and free draining attributes of Leca® LWA meant that the fill requirements to this narrow gap were achieved. The choice of Leca® LWA also meant that the material could be blown through a pipe-work system direct from the pneumatic delivery truck into the gap. A total of 85m<sup>3</sup> of Leca® LWA was installed and capped with 600mm of 6N.

## FACTS

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**Amount of material:** 85m<sup>3</sup> of [LECA ®LWA \(10-20mm\)](#)

**Interesting Fact:** Lengthening the trains demanded the corresponding extension of platforms to facilitate safe passenger traffic.

**Main Contractor:** VolkerFitzpatrick