



A major industrial facility required precise structural engineering to support extreme loads, operational efficiency, and long-term performance under continuous use

Location: Wakefield, West Yorkshire

Client: Coca-Cola Enterprises

Value: £30m

Industrial / Concrete / Performance / Specialism



Project Context

The Coca-Cola Wakefield facility forms part of a strategic logistics network serving northern England. As a high-capacity distribution and warehousing hub, the building accommodates automated storage and retrieval systems operating at significant heights. Such facilities demand exceptional floor performance, as any movement or settlement can affect automation reliability, safety, and downtime within a fast-moving consumer goods environment.

Engineering Challenge

At the heart of the structure is a 34m-high automatic racking system imposing substantial vertical and horizontal loads. These loads are highly concentrated, continuous, and intolerant of differential settlement. The slab therefore needed to act not simply as a floor, but as a primary structural element integral to performance. Designing for load capacity alone was insufficient; stiffness, crack control, durability, and long-term serviceability were critical to protect equipment and operations.

Structural Solution

A 600mm thick reinforced concrete raft slab was designed to distribute loads efficiently while maintaining tight tolerances. The raft solution mitigated settlement risk and provided uniform support to the racking system. Particular attention was given to reinforcement detailing and construction sequencing, ensuring the slab performed as a stable foundation. The design reflects the vital role industrial concrete slabs play in safeguarding automation and uninterrupted operational performance.

