

A WINNING PROPOSITION FOR REPEAT BUSINESS

Danley method helps contractors win business

Horizon 120 is an exemplar business park near Braintree, Essex, offering over 750,000 sq ft of hi-tech industrial office and logistics space in extensively landscaped grounds. Tendering for such a project is competitive, and Readie construction knew that to be in with a chance, it would need to deliver tangible time and cost savings, with proven value-engineered solutions that did not compromise performance.

When it came to the hardstanding (over 5500 sqm), they wanted to offer a solution that would keep the project moving forwards with minimal time on site, whilst reducing material dependence enough to translate into tangible cost savings.

This was going to be a high-traffic area, and the hardstanding would need to withstand heavy industrial vehicular traffic over the duration of its lifetime, with minimal maintenance and downtime.



Drawing on their experience of specifying the Danley Strategic Reinforcement Design™ at a similar project in Enfield, Readie Construction knew that this was a winning proposition that would impress the client.

For this, they turned to Clive Owen from Greystone Construction Ltd, who said: **“Using the Enfield project as an example of the value engineering achievable with the Danley solution, we were able to demonstrate to Marshgate Group that this type of method could save material and labour costs, while also reducing carbon vs traditional methods.**

“Instead of using traditional mesh reinforcement through the mid-panel, the Danley Strategic Reinforcement Design placed the support at the joints – this is where most deterioration happens.

By supporting the most vulnerable areas of the slab, we are able to control cracks and optimise load transfer in a way that would considerably reduce service yard maintenance and improve the structural integrity of the slab.”



Project information

- Client: Marshgate Group
- Project: Horizon 120
- Location: Braintree
- Concrete Hardstanding Area: 5500m²
- Main Contractor: Readie Construction
- Design Slab Engineer: Adept Consulting Engineers Ltd
- Concrete Contractor: Grey Construction Ltd
- Completion Date: 2023

Danley’s Services

- Technical design support to the engineer
- On-site installation training and guidance on best practices for quality assurance
- Danley® design warranty

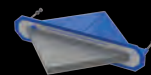


Danley® Strategic Reinforcement™ Design

- 165mm PAV2 C32/40 Concrete Slab
- No steel reinforcing mesh
- PD3® Dowel Cradles at contraction joints
- Danley® Dowels at construction joints
- Joints spaced at 3.9mx3.9m



PD3 Cradle™



Danley™ Dowel

Original Design:

- 175mm PAV2 C32/40 Concrete Slab
- Single layer of A393 mesh
- H25mm x 500mm doweled construction joints at 300 c/c spacings.
- Joints spaced 6m x 6m



The slab was constructed and installed in a time frame that delighted the customer, keeping the project moving at pace.

Material savings were also impressive, with a 6% reduction in concrete and an 85% saving on steel. These savings translated to an overall cost saving of 24% and a Co2e/m2 saving of 31%.

Going forwards, the service yard will live up to Horizon 120's ethos of exemplar quality, requiring minimal maintenance thanks to its performance-engineered design.

The Strategic Reinforcement™ Design complies with Concrete Society TR66 Rev 1: External in-situ Concrete Paving, ACI 330.2R-17: Guide for the Design and Construction of Concrete Site Paving for Industrial and Trucking Facilities and ACI 360-R-10: Guide to Design of Slabs-on-Ground.

To find out more about Danley's Strategic Reinforcement solution, visit: <https://danley.co.uk/strategic-reinforcement/>