

Elizabeth Line Cable Management Solutions

ABOUT

The Elizabeth Line, previously known as Crossrail, is a major infrastructure project in London designed to improve the transportation network across the city. Spanning over 42 kilometers, the Elizabeth Line connects Reading and Heathrow in the west with Shenfield and Abbey Wood in the east, traversing through the heart of London. Once fully operational, the line is expected to handle up to 200 million passengers annually, significantly reducing congestion on existing lines and providing a faster, more efficient travel option for commuters.

ELIZABETH LINE PROJECT

Location: London

Contractor: Crossrail

Brands: Atkore Unistrut

DETAILS

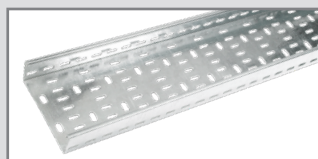
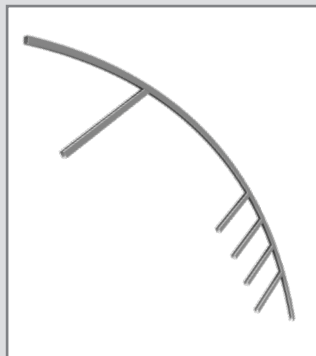
■ SECTOR: Rail & Transport

■ PRODUCTS:

Cable Management Solutions (coated in Defender™ finish)

Curved Channel
Cantilever Arrangements

■ DATE: 2015



CHALLENGES



Due to the nature of the project and the work taking place mostly at underground locations, certain challenges had to be overcome and the right product and materials needed to be specified.

The Elizabeth Line's running tunnels required Cable Management Systems (CMS) that could withstand harsh environmental conditions, including moisture, vibration, and potential chemical contamination.

Given the tight schedules and spatial constraints within the tunnels, the installation of the CMS needed to be as swift and efficient as possible.

SOLUTION



To solve the potential problem of harsh environmental conditions, an Atkore Defender™ finish was chosen for the CMS, significantly extending its lifespan in comparison to standard HDG products. This innovative coating ensured the infrastructure would remain in optimal condition, reducing maintenance costs and downtime.

SOLUTION



To ensure the installation was as swift and efficient as possible, Atkore supplied over 29,000 curved channel cantilever arrangements, which were specifically designed to facilitate faster installation.

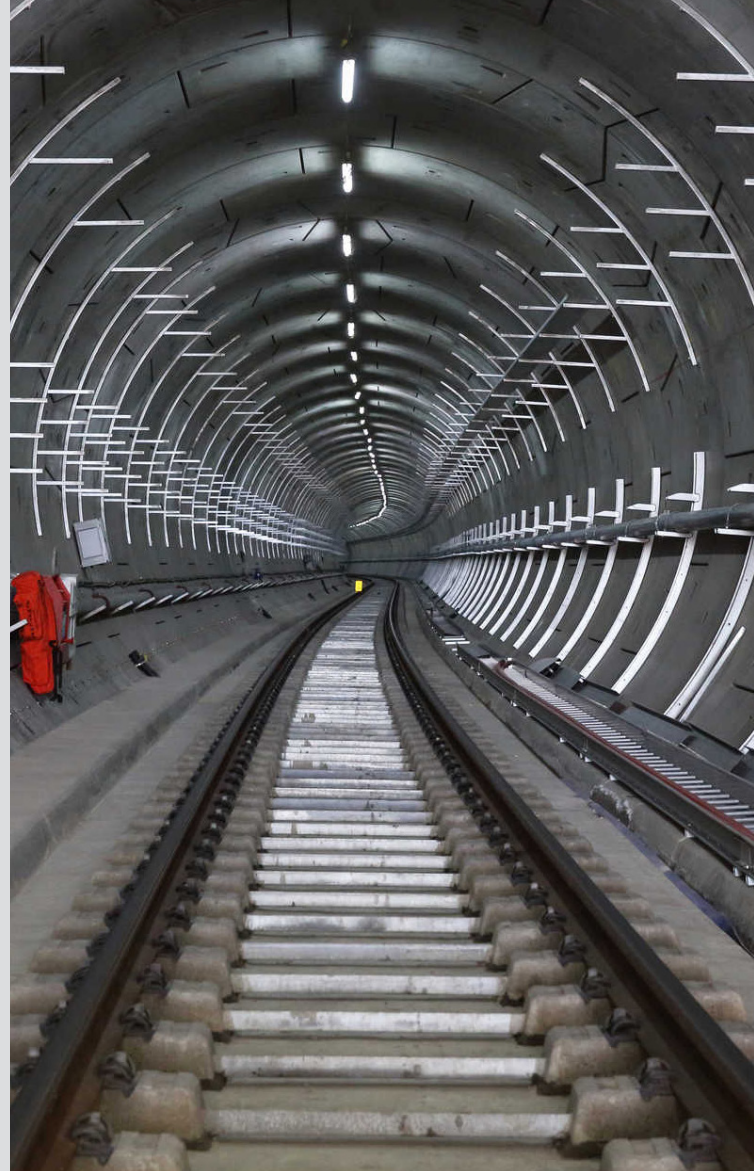
These pre-engineered solutions minimised the need for on-site modifications, allowing the project to progress smoothly to meet critical deadlines.

OUTCOME & IMPACT



The installation of our Cable Management Systems on the Elizabeth Line has been a significant success. Our innovative Atkore Defender™ finish has provided the client a high-performance solution that ensures extended lifecycle and reduced maintenance. The quick installation capabilities of our curved channel cantilever arrangements contributed to keeping the project on schedule, thereby avoiding potential delays and additional costs.

Our involvement in the project demonstrates our commitment to delivering high-quality, durable, and efficient solutions for large-scale infrastructure projects. By addressing both durability and installation efficiency, we have helped the Elizabeth Line move closer to its goal of transforming London's transportation network.



The Alstom / TSO / Costain (ATC) Joint Venture worked with Atkore Unistrut on the Crossrail C610 Systemwide Tunnel project where Atkore provided **off-site fabricated** products as a project **tier 1 supplier**.

Their innovative products, used throughout both tunnel bores and tunnel ventilation shaft plantrooms consisted of **280 km of cable tray**, **100 km of cable ladder**, and **29,000 off-site fabricated curved welded CMS brackets** - all delivered manufactured for the tunnel environment and providing 120 year operational life, as required by a project of such high engineering standard.

Atkore's **technical manufacturing expertise**, as well as **logistical capability** enabled them to work collaboratively with ATC JV as a partner to support and deliver the project on behalf of Crossrail.

- Joe Kemm, ATC JV, M&E Project Manager

