

Littlewood Fencing Case Study

Project:	HS2 Euston Station
Client:	Mace Dragados Joint Venture MDJV
Date:	October 2019 - January 2022
Value:	£1,800,000
Scope:	The takedown and removal of the existing hoarding and the design, supply and installation of new sustainable hoarding.



Euston Station Hoarding

Images © HS2 Ltd

Scope of Works

Littlewood Fencing Ltd was tasked to come up with a sustainable hoarding design that could be reused and recycled on site with a minimum design life of 10 years. We worked closely with our supply chain to develop and design a hoarding that matched MDJV requirements. This comprised of 2.4m, 3m and 3.6m high hoarding complete with security roller toppers, 6m, 8m wide bifold vehicle gates and 1.2m wide pedestrian gates; all installed with graphic panels.

Approach and Productivity

On award of the contract, we promptly completed a full site survey. As the existing hoarding was being removed from the site, we designed our hoardings to utilise the remaining kentledge blocks. This approach saved on costs and reduced our carbon footprint. With 12 different hoarding designs to suit the varying site conditions, we worked collaboratively with the MDJV Project and Design team to develop the most practical, workable design, taking into consideration the multiple constraints. Despite challenges, we achieved all programmed targets and went on to build positive relationships with members of the community.

Resources

Prior to mobilisation, MDJV identified the requirement for a full-time Contracts Manager to oversee the works. This was due to the extensive design work, multiple stakeholder

interfaces and the sensitivity of the project. Therefore, a Contracts Manager from our Major Infrastructure Division was based at Euston Station full-time. They worked alongside MDJV from the beginning of the project to ensure all requirements were met on budget and to programme.

During the peak of the project, we had up to 20 operatives working day and night across all satellite sites. We used recruitment companies to recruit local operatives. Working alongside numerous other subcontractors, we built a fully skilled and experienced workforce made up of non-working supervisors, lift supervisors, slingers, traffic marshals, machine operators and fencers. We used 9T and 14T excavators, telehandlers and HIABS for lifting, scissor lifts and Z45s for working at height and an array of complex hand tools for drilling and cutting.

As the project grew so did the complexity of the works. We had to think outside the box and invite a subcontractor on board to assist in lifting. Pro-Lifting provided lift plans, a lift supervisor, slinger, machine operatives and plant to assist our fencers in keeping the project moving despite the challenging conditions.



HS2 Supervisor of the Month Award December 2021

Images © HS2 Ltd

Innovation and Design

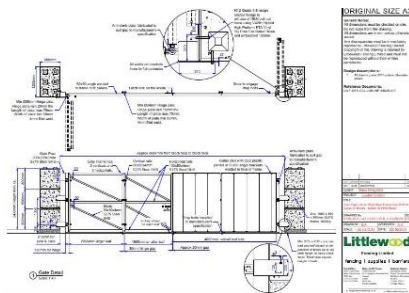
Working with MDJV, we surveyed all areas and completed temporary works design briefs. These were tailor-made for the site conditions, security teams, local retail units and the public. During the early stages, our expert team highlighted we could make time and cost savings and reduce our carbon footprint by reusing existing kentledge blocks to develop our sustainable hoarding system.

Our bespoke in house design team created over 12 different designs including 2.4m, 3m, 3.6m high hoarding, numerous pedestrian and vehicle gates, heritage railing protection and some impressive graphic panels.

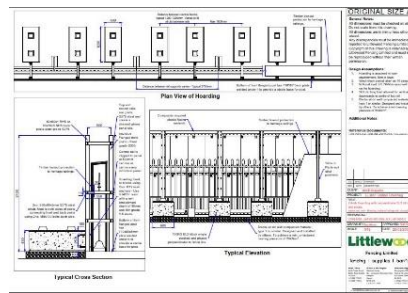
MDJV came up against an issue when needing an 8m wide vehicle gate. This was because the original 4m gate leaves were too big to open into the site. Our design team completed Design A to ensure the bi-folding gates could open without hindrance. The most complex design had to incorporate the protection of the heritage railings around the park. Without touching the railings, these boxes were to be constructed in insulated marine ply, with the hoarding built through it. Our Temporary Works Coordinator worked alongside our design team to provide several solutions for our client. Design B was our chosen solution, and although this was not easy to construct, our skilled team rose to the challenge.

The largest design on the project was our 3.6m high hoarding, complete with security roller toppers. In our design, we had to consider the new temporary PRM ramp which was being constructed adjacent to the hoarding line. This meant the pedestrian handrail was 1.5m high.

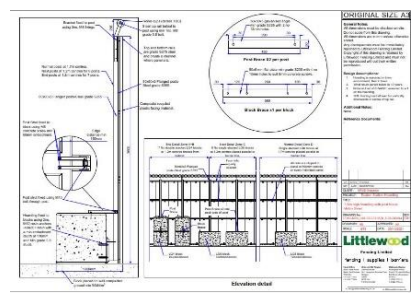
The security team raised this as a potential climbing aid, so we used this feedback to create Design C.



Design A



Design B



Design C

Environmental and Sustainability

Once awarded the contract, we completed a full detailed survey which identified the existing hoarding kentledge blocks that could be reused in our design to eliminate the use of new blocks. This innovative solution avoided the delivery of over 1500 new blocks, considerably reducing the number of deliveries to the site and the use of heavy plant for lifting.

Working with CLD Fencing Systems, we developed their hoarding system to suit the Euston Station site conditions knowing that the hoarding would need to be taken down and reinstalled across the site to facilitate works by other contractors. The steel posts, rails and channels allowed us to take down and reuse for the 10-year lifespan of the project, with the plastic board being recycled at the end of the project. Please see below the life cycle of the hoarding system:

THE FIVE STEPS OF CLD HOARDING'S LIFECYCLE

The sustainable process of how we use and re-use our hoarding.



Overcoming Challenges

One of the consistent challenges we faced on this project was the interest from the public. Each time we broke the existing site boundary, we had to work alongside

security guards behind localised chapter 8 barriers. In more vulnerable areas, we had to install a temporary SR1 rated fence before breaking the hoarding line.

Working alongside MDJV allowed us to have regular face to face meetings with all stakeholders to ensure we identified any issues, discussed potential risks and worked through any problems that occurred on site. This kept all working relationships functioning effectively and allowed for a collaborative working environment.

On occasion, our hoarding lines infringed with other subcontractor works so we had to be responsive in accommodating this. We had to complete a temporary works design brief and deliver our works within a tight window to ensure others could also carry out their works. We pride ourselves on our “can do” attitude and our ability to “work the problem”. The ability to overcome such challenges was applauded by the MDJV project teams on numerous occasions.

Health and Safety (H&S)

A dedicated H&S Officer was allocated to the Euston Station project. The H&S Officer visited the site every two weeks and completed internal audits to ensure compliance with Safe Systems of Work. Our team and the H&S Officer worked collaboratively to come up with the safest, most effective way to work.

Our Contracts Manager and H&S Officer challenged our team to suggest an innovative solution to improve the manual handling of the SR1 fence panels. Our team proposed a steel hook and handle could be fixed to the mesh panel at each end and be carried by 2 operatives at waist height, thus ensuring the safest method of manual handling was applied. This was shared amongst MDJV and all subcontractors during the monthly SWELT meeting. Our supervisor also won Supervisor of the Month for December 2021 for his dedication to the project and commitment to Health and Safety.

Collaboration

A key to the success of this project was the continued collaboration between all stakeholders. These included our clients MDJV, Network Rail, London Underground, Transport for London, London Borough of Camden, local businesses and the general public. This required a level of diplomacy, understanding and a willingness to adapt to change. To demonstrate approachability and adaptability, we attended stakeholder meetings with all parties and the MDJV consents team.

We invited our client to attend our head office to showcase the CLD Hoard Safe system. This was to instil confidence in our ability to provide a quality product with a reliable supply chain. Our design team adapted this system to meet the latest temporary works standards. We demonstrated how we would install it, cladding it with HS2 branded graphics and held a workshop with our suppliers. Engaging with the client during the pre-tender stage allowed us to build relationships with our supply chain whilst highlighting the sensitivity of the project and the importance of delivering on time and within budget.

These conversations and our “open book” strategy meant the client and supplier were involved with the journey from the start. Both CLD Fencing Systems, suppliers of the hoarding and Presson graphics supplier, worked together with our team of designers to adapt the system to facilitate the most efficient way of installing each product on site to maximise productivity. We adapted this same approach across the board from our plant, labour and our fixing suppliers.

Community Engagement

We want to create a positive social impact in the communities in which we operate and understand the value that can be achieved when we focus on improving the social, environmental and wellbeing of the people within our community.

During the project, Coram's Fields approached us to support their sustainability commitments. The charity planned to convert an outbuilding into a new electrical substation to generate power for community and corporate events. In line with our own environmental and sustainability strategy, we understand the importance of renewable energy and therefore were keen to offer our support.

We supplied and delivered over 150m of Heras Fencing, worth over £3,000. Upon completion of the project, we arranged the collection of the fencing ready for reuse.

Client Feedback

"Thank you to the team from Littlewood. We have been on a journey but the team have risen to the challenges of working at Euston and the product is fantastic. What you've installed for HS2 Euston really sets the tone for the work we will do within."

P.L Deputy Delivery Director for the Mace Dragados JV at HS2 Euston

"What a great example of what hoarding can look like when you get the support from the team to deliver a quality product. Great work team, it was a pleasure delivering this package with you all."

D.H Associate Director at Mace

"Absolutely delighted to be working on this project with Littlewood Fencing. Fantastic install of our CLD Fence Safe Hoarding."

CLD Fencing Systems

Client Reference

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