

# Northern Line Extension (NLE)

At the heart of **London's largest redevelopment for over 300 years**, the NLE represents a once in a lifetime opportunity to extend the Underground to Battersea, contributing to the regeneration of Vauxhall, Nine Elms and Battersea areas. The extension will support the **creation of around 25,000 new jobs, 20,000 homes** and reduce journey times to the West End or City to less than 15 minutes.



London Underground (LU)



£750m



51649  
2021



D&B  
Testing & Commissioning

We are delivering the design, construction and commissioning works for the new twin-bore 3.2km rail tunnel and new stations at Battersea Power Station and Nine Elms. This is the largest expansion project undertaken by LU since the Jubilee Line. Core project objectives include maintaining the infrastructure to provide a safe and reliable Underground service, constructed using innovative temporary works to ensure no lost customer hours and a sustained passenger experience during works. Our Building Information Modelling approach to modularisation is a fundamental part of our risk management process. This provides programme certainty and ensures constructability, while de-risking construction activities at the design stage.

We have built a strong partnership with LU, working towards aligned project objectives. Our project-specific design approach is already producing visible enhancements to safety, programme, risk, environment and cost. We have re-designed the Kennington Step Plate Junctions (SPJs) to deliver a programme reduction of seven months, without disrupting the existing LU operations. This also eliminates the need for compensation grouting to control ground movements, due to the reduced expected settlements.

As a result of our efforts to leave a sustainable legacy in the community, we have achieved the LU Beacon Award at all our NLE sites, reflecting outstanding practice in safety, environment, cleanliness, considerate construction, management and people values.



## ADDED VALUE

- Innovative value engineering and construction proposals has minimised the impact and programme of SPJ works, achieving a 40% reduction of the SPJ length and a seven month programme reduction
- 70% of structural works completed offsite to enhance safety, quality, and to minimise disruption
- 400,000 lorry movements taken off London's roads due to our integration to the Thames Tideway Tunnel Alliance to manage logistics and muckaway by river
- Over 500,000 tonnes of excavated earth has been sent via the River Thames to Goshems Farm in East Tilbury, where it will be used to create arable farmland

“ The fact that engineering feats of this kind have not been seen on the London Underground for decades makes this project all the more fascinating and challenging. The technical, environmental and logistical nature of the extension is incredibly complex, but we are bringing real value by working closely with our client, supply chain partners, and the communities nearby. We are firmly focused on delivering this infrastructure that London needs, as well as ensuring the benefits in terms of skills and employment are also delivered within the local communities. ”

**Luis Rallo**  
Deputy Project Director, FLo JV

**2 new stations**  
at Nine Elms and Battersea

**3.2km**  
new twin-bore running tunnels

**147m crossover**  
The largest crossover on the LU network

**4,000+**  
stakeholder property  
interfaces

**27 interfaces**  
with Grade II and II\* listed  
buildings

**2**  
Step Plate Junctions  
installed