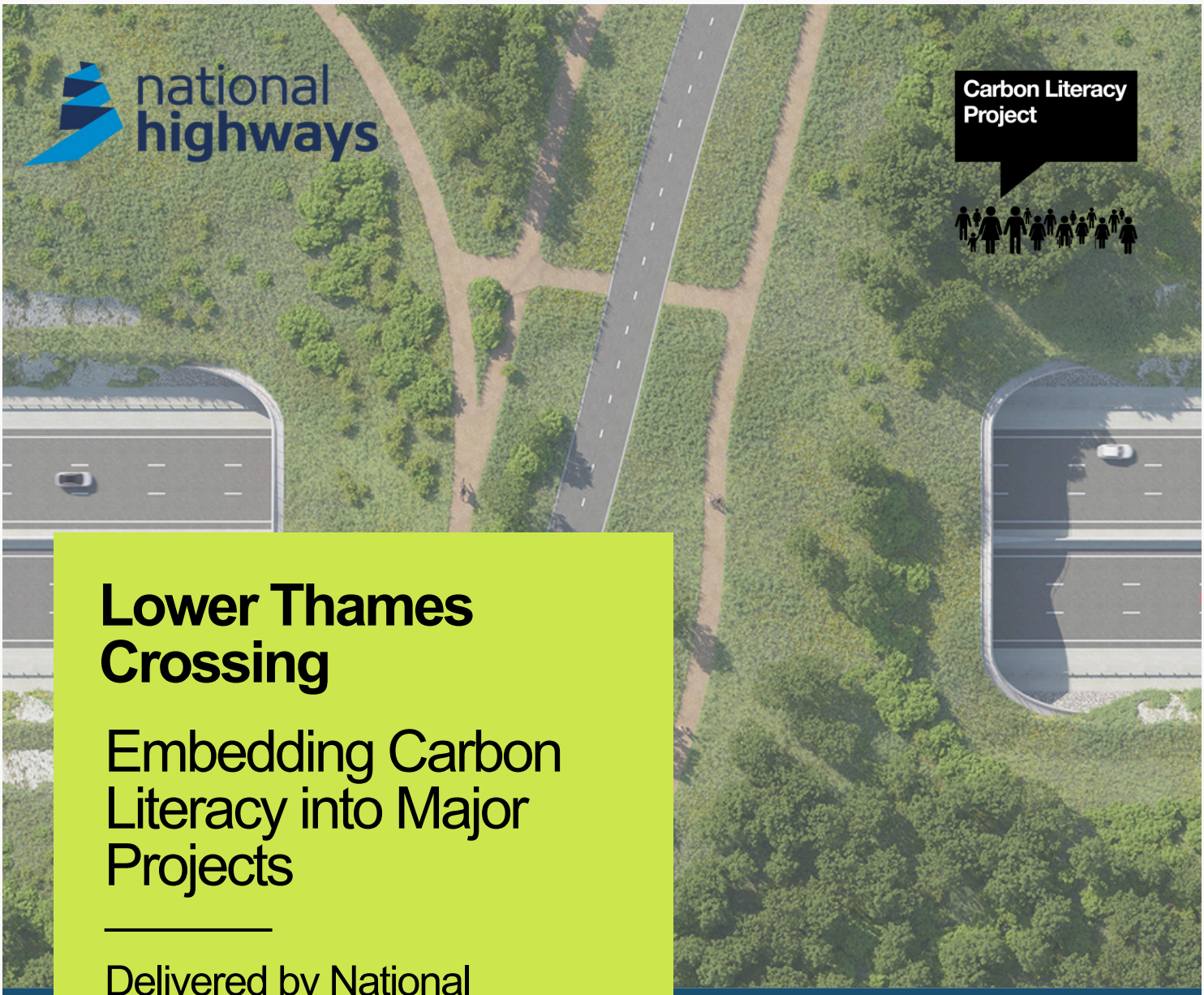


Lower Thames Crossing

Embedding Carbon Literacy into Major Projects

Delivered by National Highways, the Lower Thames Crossing - a new road connecting Kent and Essex through a tunnel beneath the River Thames - is one of the UK's most significant infrastructure projects.

With a goal to be **Britain's greenest road**, it has been designed to act as a carbon pathfinder project, showcasing how major construction can be delivered in line with a Net Zero future.

Overview

The Lower Thames Crossing sets a powerful precedent for utilising Carbon Literacy as a practical tool to align teams within and across organisations, drive measurable carbon reduction, and embed lasting low-carbon culture change within the delivery of major projects.

Setting the Standard

The Lower Thames Crossing is the first major UK infrastructure project to be accredited as a **Gold Carbon Literate Organisation (CLO).** This achievement exceeded the initial commitment to attain Silver CLO status, demonstrating how Carbon Literacy aligned with project goals.

Supporting Goals

1 Demonstrable carbon reduction

"Reduce our carbon impact by developing and maintaining a low-carbon culture and enabling our staff to apply their learning."

More than 50% of staff have completed Carbon Literacy training, creating a best practice approach to carbon management across the team.

2 Low-carbon skills legacy

"Demonstrate how we will leave a low-carbon skills legacy."

Carbon Literacy training is delivered annually to students on the Construction and the Built Environment course at local New City College.

3 External recognition

"Show local communities, suppliers and other stakeholders that we have external recognition of our work to develop carbon knowledge and skills."

Training is accredited by the CLP and participants produce specific pledges independently reviewed before being certified as Carbon Literate.



Matt Palmer,
Executive Director, Lower Thames Crossing

"The Lower Thames Crossing will tackle congestion at the Dartford Crossing, while also serving as a carbon pathfinder project to showcase our ability to develop essential infrastructure in a Net Zero future.

The foundation for this is our people, and it's incredibly important we have a better understanding of how by working together, individual small actions can make a real difference - on this project, on the next, and on the UK's pathway to Net Zero."

The Journey

February 2023
Lower Thames Crossing begin training staff

November 2023
First annual training to Construction & Built Environment students at New City College

March 2024
Lower Thames Crossing achieves **Gold CLO**

Carbon Literate Organisation Gold

June 2024
Engagement began between The Carbon Literacy Project, Lower Thames Crossing & 3 Delivery Partners

Autumn 2024
Delivery Partners commence CL training

Summer-Autumn 2025
All 3 Delivery Partners achieve **Silver CLO**

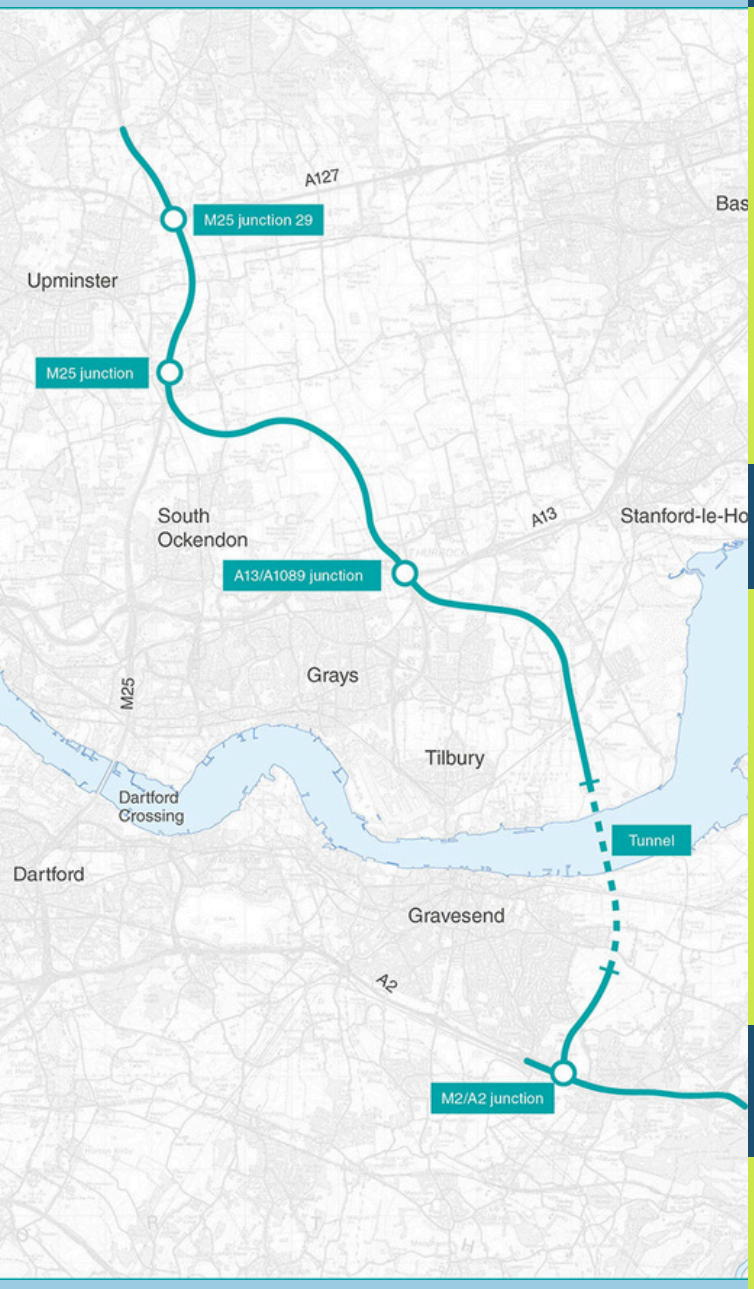
Carbon Literate Organisation Silver

A New Model for Procurement

Recognising the role that procurement can play in delivering its low-carbon ambitions, Lower Thames Crossing required all three Delivery Partners - Balfour Beatty, Bouygues Travaux Publics Murphy JV and Skanska - to achieve **Silver Carbon Literate Organisation (CLO) status** within 52 weeks of the tender award.

This pioneering requirement established **Carbon Literacy (CL) as a core tender criterion**, establishing a best practice approach to carbon management among the supply chain.

Delivering Results



Roads North of the Thames

Delivered by: Balfour Beatty

- Made CL training a requirement for all Delivery Partners, and developed one course for all DPs, ensuring a **central understanding of low-carbon approaches.**
- Delivered CL training to over **180 employees**, embedding carbon reduction into all roles.
- Used CL as the 'bedrock' to develop low-carbon thinking across the Enterprise, while **supporting their PAS2080 certification and SBTi targets.**
- Pledges from training are **actively tracked** to measure impact at project completion.

Tunnels & Approaches

Delivered by: Bouygues TP Murphy JV

- Trained nearly **half their workforce** to date, with plans to expand.
- Witnessed a strong culture shift towards collaboration, considering projects from a holistic view and **prioritising clients' lowest carbon solutions.**
- Achieved significant **reductions in travel-related costs and carbon emissions** by shifting more meetings online and considering in-person meeting locations.
- Established a Carbon Page on SharePoint to **centralise resources and learning.**

Kent Roads

Delivered by: Skanska

- CL aligned with Skanska's **PAS2080 accreditation** and **2045 Net Zero Strategy**, which included a key theme of training and employee carbon capability.
- Delivered CL training to **over 50% of staff** on the Kent Roads Project.
- Introduced a Carbon Owner role to **embed carbon management at every stage** and foster industry-wide collaboration.
- Created a Carbon Management Forum – a project leadership network to **identify future carbon-saving opportunities early.**

Carbon Literate Organisation
Silver

A Blueprint for the Future

Achievability

All three DPs achieved Silver CLO accreditation around the year mark, proving the target was realistic and manageable alongside complex project demands.

Culture change

Carbon Literacy training strengthened collaboration, low-carbon thinking, and accountability across all organisations involved.

Measurable impact

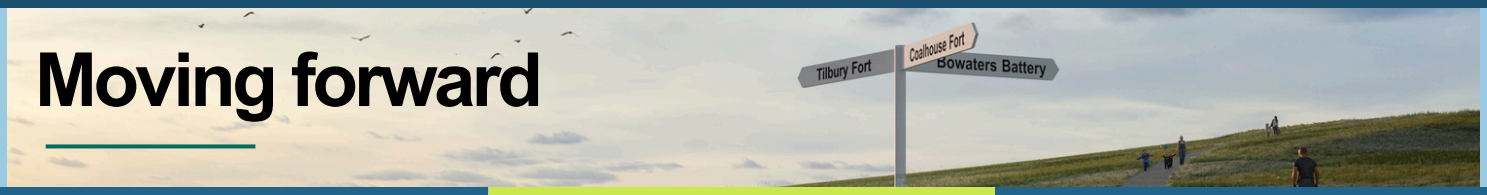
Training outcomes supported key organisational goals such as PAS2080 compliance, Net Zero strategies, and supplier engagement.

Aligned delivery

Standardising on Carbon Literacy as a 'common outcome' approach to carbon training streamlined the ability of all parties to collaborate in carbon reduction and delivery throughout the project.

Replicability

The success of the Lower Thames Crossing approach demonstrates that requiring CLO status is not only achievable but also scalable across other large-scale infrastructure projects.



Moving forward

Roads North of the Thames

Balfour Beatty

Continuing to expand CL among Enterprise Partners as the project gains momentum, as well as the supply chain.

Tunnels & Approaches

Bouygues TP Murphy JV

Developing a bespoke course for the Tunnels and Approaches section of Lower Thames Crossing focused on project delivery to improve approaches to carbon management.

Kent Roads

Skanska UK

Committed to expanding training across existing and new departments, developing bespoke materials for project stages, enhancing supplier engagement, and embedding lifecycle carbon assessments in procurement and planning.

The Lower Thames Crossing has shown that Carbon Literacy can be embedded into tender requirements as an **impactful, manageable, and achievable criterion to drive real and rapid low-carbon solutions**. By mandating Silver CLO status, LTC ensured that its contractors were not just delivering infrastructure, but also building a workforce equipped to meet the UK's Net Zero commitments.