

M25 Junction 25, National Highways
Regional Delivery Partnership

Top marks for major M25 junction upgrade

£28m

/ Project value

March 2020

/ The project commenced

September 2022

/ The project completed

The M25 Junction 25 carries both regional and national importance connecting the M25 with the A10. Carrying up to 6,300 vehicles per hour at peak times the junction and its A10 southbound approach experienced regular congestion and delays.

We worked in collaboration with our client National Highways and design partner SWECO to successfully deliver a major junction upgrade increasing traffic capacity, improving average speeds, shortening journey times and providing better local air quality.

The brief

By 2037 the traffic at the junction is predicted to increase by 20% and intervention is necessary to prevent worsening congestion and traffic delays. Awarded through our Regional Delivery Partnership with National Highways, our brief was to address congestion issues whilst meeting National Highways strategic aims delivering real value through detailed design and construction.



“GRAHAM’s attention to detail when it comes to the customer has been brilliant from day one. The project has been extremely responsive when it comes to concerns being raised by residents and businesses.

Their stakeholder management has been outstanding and is just one of the reasons why this project has been put forward for a RIP award.”

Indy Grewal
National Highways Project
Manager

“National Highways has launched an “ambitious programme” that is putting roads at “the heart of Britain’s net zero future. The National Highways Net Zero Plan is an ambitious, well thought-out roadmap that will help deliver sustainable highways infrastructure for the long term. Of course, the targets and objectives are challenging for all of the associated contractors, suppliers and stakeholders of National Highways. For GRAHAM, we fully endorse the plan and will continue to support National Highways and the government’s wider build back greener agenda.”

Dave Brown
GRAHAM Civil Engineering Highways Director

The challenges

For successful delivery it was critical to keep the traffic moving during works all while meeting our programme targets. By working with our supply chain to refine our works sequencing we were able to save 30 days on the programme and deliver over £200k in traffic management efficiencies. The changes in our approach reduced road user disruption and improved safety for our operatives working on the project.

Despite the COVID-19 pandemic we formed an effective integrated project team embracing collaborative approaches to communication and partnership-working. We hosted a Virtual Consultation event to increase the outreach and improve communication with stakeholders. We also embraced new technologies to strengthen team integration during extended periods of remote working.

The solution

The new junction layout provides extra lanes on the roundabout, widens the A10 southbound and M25 approaches and provides a free flow left turn from the M25 eastbound to the A10 northbound. A new at-grade Non-Motorised User route with toucan crossings enables more convenient and direct north/south movements whilst addressing safety concerns at the existing subways.

Through the detailed design stage we were able to optimise the construction methodology, saving a month of night-time closures on the slip roads and addressing significant health and safety risks associated with working in close proximity to the Holmesdale tunnel.

Outputs & Benefits

- Customer Assurance Framework Audit:** 10/10 scored on Customer Assurance Framework, the first time any National Highways major project has scored top marks whilst in the construction phase.
- Carbon Savings:** 20,047 Tonnes CO2 equivalent saved through detail design - a 68% saving from baseline.
- Environmental:** Wildflowers, established as a result of our work, included native daisies and poppies, providing a critical habitat for pollinators and wildlife.
- LEAN:** A Lean-BIM integrated approach was enabled using Visilean software engaging the whole project team within the planning process, removing non-value administrative tasks whilst capturing live updates from the site.
- Collaboration:** Efficient resolution of statutory diversion issues through close collaboration with Thames Water.
- Awards:** We have recorded several excellent Drive Through Audit results as part of our works programme across Highways England’s Regional Delivery Partnership. For the April 2021 audit the project finished first out of 19 Highways England Major Projects.



For more information on how we’re delivering lasting impact:

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