



15 years *in the making*

Some of the most significant rail infrastructure projects in the UK's history are in progress at the moment, and will set the course for the future of rail travel. Electrification is at the heart of many of the improvement programmes set out by Network Rail. Ultimately, the aim is to make our railways faster, more efficient and greener, increasing capacity and easing overcrowding for travellers.

A great many contracting companies are involved in projects across the country, bringing their expertise to bear on civil engineering, signalling, telecoms and OLE. Global Rail Construction Ltd (GRCL) - part of the Global Infrastructure Group - is one such company, involved simultaneously on a number of initiatives.

GRCL has a multi-disciplinary design and build focus, providing civil engineering, building, signalling, mechanical and electrical solutions on both heavy and light rail systems.

The common thread in all its projects is its people. GRCL has the resources to consistently deliver to - and go beyond - the expectations of clients.

Crossrail

Crossrail is billed as one of the most significant infrastructure projects ever undertaken in the UK and will provide easier, quicker and more direct travel opportunities across London, easing congestion.

GRCL was commissioned as principal contractor on behalf of Network Rail, to design and build four cantilever gantries, two portal

gantry signal structures and two signals on existing OLE structures. Four are non-man accessible and two are traditional accessible structures.

As part of the design, GRCL's in house design team produced full 3D designs for each structure. These were produced in a collaborative way, fully integrated with various other contractors working on the project using the ProjectWise sharing platform, with all drawings requiring conformity to the Crossrail CAD standards.

The project is currently on programme and has been completed to date, to the highest standards, with no incidents or accidents. GRCL's works are scheduled for completion in December 2016.

Barnt Green to Bromsgrove Electrification

The Network Rail West Midland & Chilterns Route Utilisation Strategy (RUS), published by Network Rail in May 2011, identified the need to develop options to accommodate the current and future passenger demand between Birmingham New Street and Bromsgrove. The RUS also identified a need to address freight growth, particularly between the South West and Birmingham.

One element of the passenger service enhancement strategy to achieve this objective is to provide electrification and re-signalling of the line between Barnt Green and Bromsgrove, thereby enabling extension of the current electric Cross City services from Longbridge.

The project will see the electrification of approximately 4.5 miles of the route between Barnt Green Station and Bromsgrove Station. The system to be installed is a 25kV booster-less classic. The system will be constructed to be ATF ready, with increased structure lengths and spare capacity within the distribution sites to be considered.

The initial scope - which forms part of the Midland main line electrification works - will see GRCL as a planning and delivery partner to the ABC Alliance, delivering extensive civil engineering works to the station infrastructure, including extensive remedial works to the platforms and bringing them back into full service.

When the full scope of works are complete, the project will see the design, installation and commissioning of approximately 14 single track kilometres of new electrification between Barnt Green Station and Bromsgrove Station on the route section on ELR's BAG2, with modification and integration with existing infrastructure on ELR BEA. Within the project's limits is the Lickey Incline, which has an average 1:37 gradient for two miles. The steepness of this gradient will present greater design and construction challenges.



GWEP (Great Western Electrification Project)

GRCL's part in the electrification of the Great Western Railway is to enable a sustainable mode of transport by developing a multi-skilled collaborative organisation in which people can succeed by working together.

This involves the construction of a number of substations on behalf of UK Power Network Services, for AST outdoor switchgear including, but not limited to, concrete bases, trough routes, compound fences, URXs, UTXs and cable bridges.

The aims of the project are to:

- » Deliver the scope of work efficiently and safely;
- » Achieve zero harm to staff, others and the environment;
- » Ensure the continued safe operation of the Network Rail infrastructure with a minimum effect on current performance levels;
- » Minimise environmental impact of the work during construction;
- » Promote sustainable construction through efficient use of resources and promotion of environmental best practice.

Royal Wootton Bassett ATFS - this was a challenging site from the beginning and the site team encountered various problems, such as major design changes and unforeseen ground conditions (high water table) which hindered the progress from the start. However, leveraging good relations with both Network Rail and UK Power Network Services, the GRCL team managed to complete this ATFS site to a high quality standard, on time and within budget.

Little Somerford ATS - Works again on the site have been especially challenging, encountering unforeseen ground conditions, such as the old Somerford station platform, which had to be broken out and disposed of before continuing with the main construction works. All works have generally gone well with no major incidents and finished to a high standard.

Continuing the high standard and winning more tenders, GRCL is currently heading into South Wales and current planning along with the project setups for the next sites is underway, for Severn Tunnel, Cardiff Canton and Maindee. These sites are due for completion in October 2017.

East Notts Resignalling

As the East Notts project now enters the critical advanced level crossing phase, all emphasis is on achieving and completing as many of the construction works as possible on a modular basis to ensure the major commissioning phase runs smoothly and to plan.

July and August saw the successful delivery and installation of seven Si-REBs (signalling island re-locatable equipment building) with the final Si-REB installed at Newark Castle.

As the countdown to commissioning begins, GRCL's civils team is on schedule, collaborating closely with their client ATUK, with all works being completed to programme. The seven level crossings are being commissioned over three stages, with stage one having been successfully delivered and commissioned on 17 September at Lowdham and Bleasby and stage three on 7 November 2016.

Celebration of success

The success of all of these UK major projects up to now is due to the extensive skills and experience of GRCL's team of specialists - which have been developed and honed over 15 years.

2016 has been an exciting year in more ways than one. Both Global Rail Construction Ltd and its sister company in Ireland, Global Rail Services Ltd, have celebrated a 15-year anniversary. The

former has received full PC status and the latter has recently been awarded with a significant light rail scheme in Dublin on the Luas Lines.

There has also been a significant re-branding to encompass the wider rail, infrastructure and telecommunications activities in Australia and Ireland, with the formation of the Global Infrastructure Group - bringing the companies together under one consistent banner and the Global family closer together.

Established by Marco Lombardelli and Ivan Holloway, it has grown into a successful group of multi-disciplined rail engineering and construction delivery organisations. The informal group of companies consists of the UK-based Global Rail Construction Ltd, Irish-based Global Rail Services Ltd, Australian-based Global Rail Australia Ltd and GRA Networks - a specialist telecoms subsidiary operating in both Ireland and Australia.

With 15 years of operation on multi-national rail networks, the Global Infrastructure Group of companies has over 500 years of infrastructure experience amongst its staff. The recent rebrand of the company was a signal of its intention to capitalise on its multi-disciplinary expertise and global reach.

Marco Lombardelli is quick to point to the quality and loyalty of his workforce as the reason for the success to date: "Our incredible journey over the past 15 years has been made possible by the team of specialists we have assembled in the three countries in which we operate - we are so much stronger by the sum of all our parts. Empowering our people and respecting everyone's views form the basis of our core values.

"Heartfelt thanks go to each and every member of our team. We can now look forward to the next 15 years with great confidence in our delivery capabilities." ●

