

CASE STUDY

Accessibility Improvement Works (Rathdrum, Mullingar & Leixlip Louisa Bridge)

LOCATION: Leinster
CLIENT: Irish Rail



Introduction

Rail infrastructure contractor Global Rail Services was awarded accessibility works at three railway stations on behalf of Irish Rail in August 2016.

Customers at Rathdrum, Mullingar and Leixlip Louisa Bridge Stations are now benefiting from Global Rail Services' extensive experience in delivering construction solutions that enhance and improve their passenger experience.

The project was successfully completed, with key project milestones being met and a high quality end product to match, with Global Rail Services effectively managing and delivering the full suite of stakeholder expectations.

The works include complex in-situ civil engineering works, temporary works, roads and pavings, as well as rail engineering activities in respect of upgrading station platforms and railway pedestrian access. Global Rail Services also used its full infrastructure contracting experience to manage and deliver the interface between the highway and railway authorities.

The works were completed in a phased manner, with a final completion date of February 2017. To ensure that each milestone was achieved, Global Rail Services prepared detailed programmes and schedules and provided a dedicated and co-ordinated approach to project management throughout the works. Liaison with a myriad of stakeholders, along with a collaborative approach to these works, has paved the way for a professional delivery that has met and exceeded expectations.

Procurement of long lead items and contract approvals has formed an integral part of the project success. Global Rail Services has used its rail engineering experience to deliver a fully managed multi-disciplinary rail project to the delight of the client.

The Deliverables

Global Rail Services provided full temporary works design and a co-ordinated construction service for the full civil and structural and electrical and mechanical work scope at each site. They delivered a fully managed programme of works, whilst effectively co-ordinating with all project stakeholders to achieve compliance with all relevant railway, local authority, roads and street works, safety and environmental standards, based of the following scope of activities:

Rathdrum

Ramp & Car Park Works

- ① Set up compound, provide traffic management and security fencing;
- ① Design and construct temporary works as required to protect the integrity of the existing footpath, car park and platform, utilising TSC and lookouts;
- ① Demolish and dispose of the existing old waiting room, small plant room and tank;
- ① Demolish existing ramp support walls and re-use stone;
- ① Excavate out for ramp base/foundations;
- ① Install in-situ and precast ramp sections;
- ① Install any ducting, drainage and inspection chambers on ramp;
- ① Install stone cladding surfaces/rendered surfaces on ramp/steps;
- ① Install compacted backfill and ramp/steps surfacing;
- ① Install ramp/steps railing/handrail and lighting columns;
- ① Install TVM plinth;
- ① Extend car park stone wall and amend and resurface footpath section;
- ① New signage and car park/road markings to car park;
- ① Install black railings/fencing and foundations as indicated to block off old hotel steps at platform level.

Platform Works

- ① Remove and dispose of existing platform surfacing;
- ① Install new drainage, gullies, drainage channels and inspection chambers;

- ① Install new ducting and lamppost bases, lamppost inspection chambers;
- ① Install new platform sub-base and surfacing to levels/profiles;
- ① Install new platform markings and signage as shown;
- ① Connect platform drainage to 6ft drain utilising TSC and lookouts.

Mullingar

New Entrance Ramp Works

- ① Set up compound, erect fencing and provide traffic management;
- ① Design and construct temporary works as required to protect the integrity of the existing siding and platform, utilising TSC and lookouts;
- ① Excavate out for ramp base/foundations;
- ① Install ramp walls as detailed;
- ① Install new buffer/bottom landing wall as detailed, using TSC and lookouts;
- ① Install any ducting, drainage and inspection chambers on ramp;
- ① Render ramp walls;
- ① Install compacted backfill and ramp surfacing;
- ① Install ramp railing/handrail and lighting columns;
- ① Install TVM plinth;
- ① New signage and platform markings;
- ① Remove to IE storage the existing galvanised double gates;
- ① Install new black fixed railing and single pedestrian double swing gates.

Existing Pedestrian Footbridge Works

- ① Set up works to ensure pedestrians can pass works safely at all times;
- ① Prepare the existing bridge railings and install the double handrails on both sets of steps;
- ① Prepare the existing steps and install new contrasting nosings on both sets of steps;
- ① Install new tactile surfacing at top and bottom of steps.

Leixlip Louisa Bridge

New Footpath Works

- ① Set up compound and traffic management cordoning off works location safely from the public/commuters;
- ① Install new kerbing to both sides of access road;
- ① Construct new footpath as shown removing and disposing of any vegetation within new alignment;
- ① Install new kerb line on opposite side removing and disposing of any vegetation within new alignment. Re-tarmac segment of road disturbed;
- ① New line markings to road;
- ① Fabricate and install new pedestrian gate and install new posts for existing road gates;

- ① New drop kerb and pedestrian crossings at bottom of road;

Existing Access Ramp Works

- ① Amend existing access gate to open and lock at 90 degrees;
- ① Paint yellow markings on existing lamppost;
- ① Install double keyclamp painted handrails on both sides of the access ramp;
- ① Mark out the landings as detailed.

Challenges and Solutions

By appointing Global Rail Services, a multi-disciplinary project management contractor, as the single point of contact, Irish Rail were provided with the confidence of a contracting organisation that would fully manage the project, the trade interfaces and the complexities of working in a live rail situation.

Global Rail Services have a multi-disciplinary workforce across all deliverables and delivered works at every site in-house, which the exception of the surfacing, which was procured through a long-term supply-chain partnership. This provided Irish Rail with a one-stop solution for each and every contract.

There were also daily challenges with each location in respect of interfaces with commuters, road users, visitors and patrons. Global Rail Services carefully planned each project to ensure that their works had minimal impact. They also co-ordinated with Irish Rail, regularly consulting and

managing expectations of commuters, local residents and other stakeholders with care, keeping all relevant parties informed in advance and during the works.

Global Rail Services also undertook a series of risk mitigation assessments and geotechnical assessments at the site prior to works commencement. In consultation with Irish Rail, a bespoke methodology for each project was prepared including a detailed implementation programme. Global Rail Services held co-ordinated weekly site meetings, to monitor and sign-off each element of works, which ensured that works were progressed to the satisfaction of the client and their conservation team.

To ensure that high standards were maintained, Global Rail Services undertook regular audits of their systems, documents and site housekeeping to maintain the health, safety and well-being of all those coming into contact with the project.

The Benefits

Global Rail Services have a multi-disciplinary in-house workforce across all trades including experience in civil and structural engineering as well as both mechanical and electrical engineering, which provided a one-stop solution for the project.

As an organisation Global Rail Services are used to working in a live environment. By aligning closely with

the communities in which they serve, they provided a considerate, safe and secure environment for all staff, visitors, patrons and stakeholders.

Having their roots in railway engineering also aided access planning and logistics with the station staff and also Irish Rail's signalling and track engineering departments when modifying the platforms and station access.