

A453/A52 Silverdale Interchange, A52 Nottingham Knight to Clifton and A52 QMC to Clifton Multi-Disciplinary Schemes

Project Profile

Client: Highways England Area 7

Designer: Kier

Value: £1.44m

Overall scheme value £7.05m



These 3 multi-disciplinary schemes were carried out under Highways England's Area 7 Collaborative Works Framework (EMAD). We are engaged as a Specialist Drainage Contractor on the framework (Lot 14) however for these schemes we were also appointed as Principal Contractor to manage the delivery of the projects and to coordinate the 7 other CWF specialist partner contractors. The works involved completing renewal and maintenance work to the following sections of the strategic road network with the majority of work being carried out at night;

- 5.5km of the eastbound and westbound length of the A52 Clifton Boulevard between Nottingham Knight and QMC Roundabouts
- A453 Silverdale junction and 1.5km northbound and southbound length of A453 Clifton Lane including dual carriageway, slip roads and laybys between A52 Clifton Boulevard and A453 Clifton Lane.

The main elements of work included;

- Traffic Management—extensive traffic management was required for the scheme to accommodate the night time road closures
- Civil Works – Rectification of drainage defects on the Silverdale interchange roundabout involving; structural pipe relining, dig-down repairs, jetting of existing drains and CCTV drainage surveys; replacement of iron work (manholes and gully covers); installation of new signs & bollards including ducting and inspection chambers; removal of overburden and intermittent replacement of damaged kerbs on eastbound and westbound A52 from Nottingham Knight Roundabout to QMC roundabout and the A453/A52 Silverdale interchange.
- Surfacing Works – Plane-off existing surfacing and resurfacing the A52 from Nottingham Knight roundabout to QMC roundabout on both eastbound and westbound carriageways, the A453/A52 Silverdale interchange including main carriageway, slip roads and Clifton Lane but excluding roundabout and approaches. High friction surfacing was also provided in several locations including the Silverdale roundabout slip roads.
- Roads Markings and Signs – Renewal of all road markings and studs with some changes to road markings required to suit the new safety barrier design.



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- **Safety Barriers (VRS)** – Replacing/upgrading of the safety barrier on the main A453 at various locations on both verge and central reserve. Replacing and upgrading the safety barrier on the Silverdale roundabout gyratory and slip roads. Replacement of sections of VRS throughout Silverdale interchange including the underpass and junction of A453/A52 and also along the A52. Upgrading substandard terminals throughout with the main defects being rust at the base of posts and corrosion of beams.
- **Bridge Joints** – The A52 westbound and eastbound dual carriageway passes over several major structures and 39 joints of various types, including buried joints, were renewed along this section including – saw cut and seal, asphaltic plug joints – Maurer D80B joints and elastomeric joints with metal runners.
- **Loops** – Disconnect existing loops and reinstate loops once carriageway was resurfaced.
- **Illuminated Signs / Bollards** – Installation & commissioning of lit signs & bollards.

EMAD CWF Contractor partners involved in the contract were;

- HW Martin – Traffic Management
- Ground Control—Site clearance
- Tarmac—Surfacing
- Hanson—Surfacing
- Volker Laser – Waterproofing
- Jointline—Road markings
- Roocroft – Vehicle Restraint systems
- McCann – Technology & traffic signals



We are committed to delivering schemes to programme and budget despite additional works or delays and this scheme is a good example of this commitment. Snow and unexpected additional drainage work were causing significant delays to the scheme and extended road space booking was not available, we worked collaboratively with Highways England's construction team, designers & CWF partners to re-program the work, review resource levels, maximise night shift working, review operations to achieve optimum shift output for all contractors. This included analysing work scope, resources, programme floats, sharing plant and materials. We also reviewed methods and changed a series of proposed dig down drainage repairs to a patch lining system which significantly reduced programme and costs. Despite the changes we achieved the delivery date with no financial impact on HE or impact on the customer. The team worked hard to achieve the completion date and went above and beyond expectations.

On the EMAD CWF framework we are involved in each project on an end to end basis, from feasibility, VM budgets, ECI, surveys, risk management, design development, programming, road space booking, construction and handover. Comprehensive Risk & Opportunities registers are produced and updated weekly, an 'Innovation Tracker' is included in all schemes and runs from ECI stage to completion and records all innovations, alternatives and opportunities together with the number of these that became incorporated in the scheme together with assessment of the value and efficiencies delivered.