



For a number of years, Warrington Borough Council have been working on a significant highway improvement endeavor, and between August 2020 to November 2021 Dowhigh were involved in a large scale project around the Omega area, in response to burgeoning developments of both new residential and large business improvements. The project aimed to enhance accessibility, safety, and traffic management infrastructure to accommodate the growing community and commercial enterprises – allowing for greater highway capacity and new cycle routes.

The project was divided into two distinct phases, each targeting key junctions and pedestrian infrastructure within the designated area. Phase 1 primarily focused on the Lingley Green Avenue/Omega Boulevard roundabout, while Phase 2B concentrated on the Liverpool Road/Lingley Green Avenue junction.

In Phase 1, extensive measures were undertaken to upgrade the existing infrastructure. This included widening the approaches to the Lingley Green Avenue/Omega Boulevard roundabout, upgrading traffic signal-controlled junctions, and enhancing pedestrian crossings. Additionally, the project involved extending drainage culverts, constructing combined footway/cycleways, installing hydrobrakes to the drainage system, implementing new road markings, and undertaking soft landscaping works.

Phase 2B continued the momentum by targeting further enhancements at the Liverpool Road/Lingley Green Avenue junction. This phase included widening junction approaches, upgrading existing traffic signal-controlled junctions with toucan facilities, installing street lighting ducting and chambers, and constructing combined footway/cycleways.

This large scale project (approximately £3million in value) utilised a wide range of materials to meet specific customer requirements including:

- Road kerbs (2127 Lin. M)
- Concrete edging kerbs (4257 Lin. M)
- Combined footway / cycleway surfacing (11111 Sq. M)
- Carriageway surfacing (18555 Sq. M)
- Service ductwork (3098 Lin. M)
- Road Gullies (36 total)



Due to the proximity of the works in relation to other major highways in the area (including the M6 and M62 highways), Dowhigh were faced with a number of challenges including:

- Working adjacent to live utility services – The client requested that all excavation work was to be carried using Vacuum Excavator machinery, rather than traditional excavators. This extended the programme period as it was a slower method of working, however it was beneficial in terms of health & safety.

- Working adjacent to a live highway – the works were completed in phase sections under traffic management set-ups. The phasing and Traffic Management plans were reviewed and agreed with Warrington Council and Highway England due to adjacent M6 and M62 motorways.
- The contract was a Sector 12D NATIONAL HIGHWAY SECTOR SCHEMES due to its proximity to M62 and M6. Dowhigh employed a 12D certified Traffic Management contractor for the duration of the works.



The project's overarching objective was to accommodate the rapid development in the Omega area, encompassing new residential neighborhoods and commercial enterprises. By augmenting highway capacity, facilitating smoother traffic flow, and providing enhanced pedestrian and cyclist infrastructure, the project aimed to foster greater connectivity and safety for residents and businesses alike.

The completion of the highway improvement project yielded tangible benefits for the community and stakeholders. These included improved access to the Great Sankey Neighbourhood hub, increased provision of footways and cycleways, enhanced traffic junctions, and improved carriageway links.

This comprehensive case study exemplifies the successful collaboration between Warrington Borough Council and Dowhigh Ltd. in executing a multifaceted highway improvement project. It underscores the importance of strategic planning, stakeholder engagement, and innovative solutions in addressing the evolving needs of urban infrastructure.



*“Dowhigh Ltd. carried out a £3 million highway improvement scheme for us that they were awarded by competitive tender. They were very professional to work with and the scheme was completed on time and below budget. They worked well with our Engineers both in the office and on site. We would employ Dowhigh again and hope to work with them in the near future.”*

**Mike Wheldon, Principle Projects Manager, Warrington**