

Highway Improvements at Vincent Drive, Harborne, Birmingham for New Queen Elizabeth Hospital

Project Profile

Client: Birmingham New Hospitals Joint Venture (BNHJV)

Designer: WYG

Date: Nov 09 to April 10

Value: £450k



Complete reconstruction of two of the main traffic junctions into the hospital complex as part of the redevelopment of the Queen Elizabeth Hospital. The junctions, A & B, were re-constructed on a phased basis to suit programming requirements of the new Hospital project.

The work included detailed management of pedestrians and local traffic together with implementing specific diversion routes in conjunction with Birmingham City Council highways department as Vincent Drive remained live during the entire programme of work.

Construction of Junction A involved the development of a circular traffic island with five approach roads. Work to Junction B involved the construction of a traffic light controlled 4 way crossroad junction to serve the new Hospital A&E Department.

Certain areas of the site had scheduled Ancient Monuments present which necessitated the close liaison with English Heritage during the construction process to ensure protection measures were established in these areas.

Main construction activities consisted of:

- Implementing a temporary traffic light system with manned operation during daily peak rush hour flows
- Provision of temporary solid safety crash barriers designed to withstand a 30mph vehicle impact to enable safe diversion of live traffic
- Establish and maintain advanced warning road signage and daily monitoring of agreed diversion routes
- Installation of fencing and surfacing to designated temporary pedestrian footways to allow safe passage of the public at all times
- Break out 425m of existing kerbs and associated foundations prior to replacing with new to suit new road layouts
- For Junction A, removal of existing tarmac surfacing, footways and tactile paving prior to relaying 3000m² of new type1 subbase and tarmac surfacing to suit revised road layouts. The entire junction was remodelled by providing 1400 tonnes of regulating material to suit the new construction levels requiring detailed tying arrangements to existing kerb lines, paving's and tarmac surfacing



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- Specialist anti skid surfacing overlaid on junction approaches
- Reinstatement of thermo plastic road markings to complete the junction works
- Safe removal and disconnection of existing traffic light system including all associated cables and control cabinets
- Supply and installation of new traffic light system including all associated ducting
- Removal of trees located around the new junctions on safety grounds
- New street lighting columns and connection to power supply
- Various foul and surface water drainage modifications with several new gulleys
- Removal of a pedestrian timber bridge structure spanning over a scheduled Ancient Monument
- Installation of road signs with associated lighting
- Provision of a CCTV traffic monitoring system including all necessary ducting, draw pit's, lighting columns and camera bases
- Traffic and pedestrian sensitive works were carried out on an agreed out of hour basis

We worked closely with Birmingham City Council Transportation and Projects Department who were supervising the scheme as Vincent Drive was a critical access route to the hospital and to the adjacent Birmingham University campus. Traffic management proposals, methods of work and plant sizing were subject to an approval process with BNHJV and Birmingham Streetworks Coordinators. In addition extreme care was required when excavating around existing utilities due to their critical link to the hospital.

The project was completed successfully and without incident due to collaborative working with the client and highways department engineers.

