

Killingworth Road Metro Bridge, Newcastle-upon-Tyne

Year: 2017

Client: Nexus

Main Contractor: Story Contracting

Moore Concrete Project Approx Value: £210k

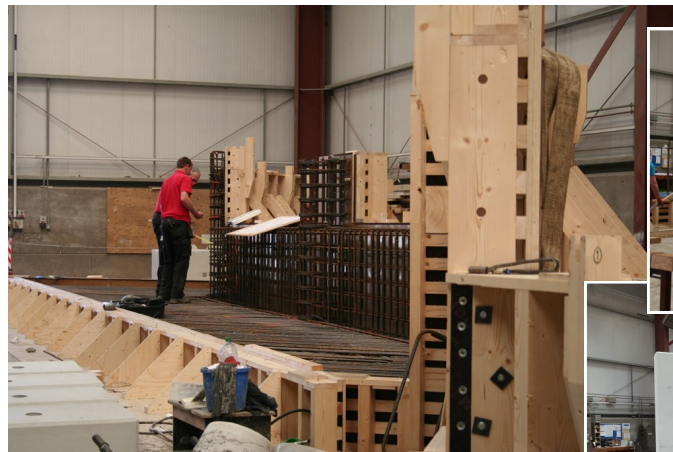


Challenge of Project

Construction of the new Killingworth Road Metro bridge is one of the largest engineering projects in the history of the Newcastle-upon-Tyne Metro. Moore Concrete worked with Story Contracting on the project to provide the new precast concrete substructure to the new bridge which replaced the Victorian era original structure.

The bridge substructure was designed as modular precast abutment units assembled, positioned and connected together in position. The superstructure, comprising steel beams and complex precast cill beams, was assembled off line and moved into position using a multi-wheeled lifting rig.

Moore Concrete produced fifty-one separate concrete elements, 730 total tonnage, using timber moulds to a high quality F3 finish. The units were all manufactured and delivered to meet the project constraints and possession deadlines.



These elements included:

Trapezoidal Abutment units – complex geometry required high attention detail throughout their manufacture, from tying reinforcement, timber mould construction and bracing to the quality control checks to ensure that units were constructed to the specifications

Large Cill Beam units – two large cill beam units weighed between 45-47 tonnes, 15m in length, 3.5m wide required special escorted transport. Each unit had multiple cast-in elements and involved three secondary casts to construct the intricate abutment walls.

