University of Glasgow, Glasgow

# Delivering a high-grade architectural finish for a world-changing university

**Key Benefits:**

Efficient scaffolding solution provided access to multiple levels

Technical expertise enabled unusual pour heights to be achieved

Climbing arrangement accommodated changes in structure

**The project at a glance**

The University of Glasgow is undergoing construction to build a new Learning and Teaching Hub, the first phase of its 10-year campus development plan, which is being delivered by MULTIPLEX. The hub is made of three exposed concrete cores, all of which were required to rise in tandem to meet the construction schedule.

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**Customer:** Careys Civil Engineering

**Main contractor:** MULTIPLEX

**Developer:** University of Glasgow

**Project type:** Private, Non-Residential

**Products and Services:** VARIO GT 24 girder wall formwork, Light Climbing Formwork (RCS CL), CB Climbing Formwork, PERI UP Access

### What did the customer need?

Due to the site's location, space was limited when constructing the hub and was further reduced, as the customer needed all three cores in this area to rise simultaneously. In addition, these cores had to be of the highest quality finish, as they would remain exposed on completion.

Transport arrangements had to also contribute to an efficient construction sequence, by ensuring material was on site only when required.

### What was the challenge?

The structure of core one was more complex than the other two cores, as it changes shape half way up the building. This meant that our climbing anchors could not be installed in a straight line.

In addition to the cores, we had to deliver an exposed concrete finish on columns as high as 10m. These had to be cast in a single pour, leaving our designers to make this work within formwork limitations.

### How did we help?

All three main cores were formed using our VARIO GT 24 girder formwork, an obvious design choice for the specified architectural finish.

Formwork ascended hydraulically on our light Rail Climbing System (RCS-CL) for cores two and three, which was specifically designed to lift six platforms simultaneously. Due to the speed of the RCS, the external platforms were lifted in two halves, allowing the core to jump a level in one working day.

For the lift on core one, we used a combination of the CB climbing system and RCS. This enabled formwork and working platforms to accommodate structural changes and kept repositioning to a minimum. We were able to maintain the pace of construction, ensuring all cores were up before the handover with steel erectors.

Using their technical expertise, our design team were able to achieve the unusual pour height on the columns, which included the same plywood layout, tie pattern and finish as seen on the cores.

Transport arrangements and just-in-time deliveries planned between the customer and our team helped to coordinate formwork, so that it was only on site in time for erection, creating much needed space for movement on site.

**Contact us by email on sales@peri.ltd.uk or call 01788 861 600**