HOWARD
CIVIL ENGINEERING

PROJECT CASE STUDY:
Bradford Transforming Cities Fund Programme

CLIENT:
Balfour Beatty

CONTRACT VALUE:
£2.9 million

PROGRAMME DURATION:
64 weeks



BACKGROUND

The City Centre Walking and Cycling Improvements Scheme formed part of the wider £55 million Bradford city centre regeneration programme, delivered by Balfour Beatty on behalf of Bradford City Council ahead of Bradford's year as UK City of Culture 2025.

The scheme aimed to transform key areas of the city centre by improving pedestrian and cycling spaces, adapting the road network and creating a more accessible and sustainable urban environment.

A key objective was to pedestrianise sections of the city centre and reroute buses around it, improving journey efficiency while creating opportunities to rejuvenate public spaces.

Howard Civil Engineering (HCE) was appointed by Balfour Beatty to deliver a £2.9 million civil engineering package, including new footways, cycleways and carriageways, drainage, kerbing, traffic signal and street lighting infrastructure.

A particularly complex element was the infilling of the existing subways at Jacob's Well roundabout to enable an overground pedestrian crossing and improved connections with surrounding pedestrian areas.

The project required close coordination between HCE, Balfour Beatty, specialist subcontractors and traffic management teams within a busy live city-centre environment.

SCOPE OF WORK

Site Clearance & Existing Infrastructure Removal

HCE cleared existing areas to facilitate the new city-centre layouts, including:

- Removal of existing paving, kerbing and street furniture.
- Storage of selected street furniture and materials for potential reuse.
- Excavation and preparation for new footways, cycleways and carriageways.
- Removal and modification of existing infrastructure.

Footways, Cycleways & Carriageways

HCE constructed new pedestrian, cycling and vehicular infrastructure, including:

- Excavation to formation and associated earthworks.
- Installation of capping and sub-base materials.
- Construction of new footways, cycleways and carriageways.
- Installation of paving and surface finishes.
- Cycleway demarcation and bus kerbs.

Works were measured and delivered in accordance with the relevant Manual of Contract Documents for Highway Works (MCHW/MMHW) requirements.

Drainage Infrastructure

New drainage was installed to align with the revised road layouts and manage surface water, including:

- New and relocated drainage gullies.
- New drainage channels.
- Marshalls Beany kerbs, combining kerbing and drainage.
- Drainage connections associated with new carriageways and pedestrian areas.

Traffic Signals & Street Lighting

HCE delivered the associated civils infrastructure for new and modified traffic signal and street lighting installations, including:

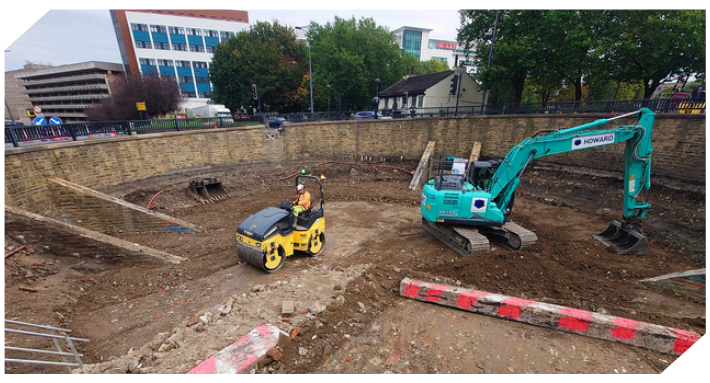
- Trenching and ducting.
- Chambers and associated infrastructure.
- Preparation and installation of lighting columns.

These works were coordinated with the revised road layouts and pedestrian crossing arrangements.

Jacob's Well Subway Infill

One of the most technically involved elements was the infilling of the existing pedestrian subways at Jacob's Well roundabout. The works enabled the subways to be permanently discontinued and replaced with an overground pedestrian crossing. The works involved:

- Approximately 2,600m^3 of imported granular fill.
- Approximately 600m^3 of foamed concrete.
- Masonry works to existing subway entrances.
- Specialist grouting and associated works.
- Installation of breather pipes and associated pipework ahead of pumping operations.



ADDITIONAL KEY DELIVERY

Complex Traffic Management & Material Delivery

The Jacob's Well infill presented significant logistical challenges due to the roundabout location and need to maintain safe traffic movements.

HCE coordinated with the traffic management team to facilitate controlled vehicle movements and material deliveries, using banksmen and temporary lane closures.

Imported stone was delivered during controlled traffic-light phases, with wagons reversing into the tipping area under banksman supervision. Stop blocks and an excavator positioned within the roundabout enabled the material to be safely received and distributed.

Specialist Grouting & Pipework

The subway infill also required detailed coordination of specialist grouting works, blockwork mortar and fixings, together with the installation of pipework required ahead of the pumping operations.

HCE worked with its specialist subcontractors to coordinate the hanging and fixing of pipes and the installation of breather pipes, ensuring the various elements were completed in the correct sequence before the pumping and infill works progressed.

Working Within a Live City Centre

The project was delivered within a busy operational city centre, requiring careful management of pedestrians, traffic, businesses and existing infrastructure throughout the 64-week programme.

Works, traffic management and material deliveries were continually coordinated with Balfour Beatty to maintain safe access while allowing multiple workstreams to progress.

PROJECT CHALLENGES

- Delivering extensive civil engineering works within a busy live city-centre environment.
- Maintaining safe traffic and pedestrian movements around active works.
- Complex infilling of the Jacob's Well subways, including 2,600m^3 of granular fill and 600m^3 of foamed concrete.
- Coordinating grouting, blockwork, pipework and breather pipe installation.
- Managing large-volume material deliveries within a constrained roundabout.
- Coordinating banksmen, traffic management and vehicle movements during tipping operations.
- Integrating new drainage, traffic signal and street lighting infrastructure with existing services.
- Delivering the works to the required highway standards within a demanding 64-week programme.



OUTCOME

The City Centre Walking and Cycling Improvements Scheme has helped transform key areas of Bradford city centre, creating improved pedestrian and cycling infrastructure while supporting the wider regeneration programme ahead of Bradford's year as UK City of Culture 2025.

As part of the £2.9 million package delivered for Balfour Beatty, Howard Civil Engineering completed a wide range of complex civil engineering works, from new footways, cycleways, carriageways and drainage infrastructure to traffic signal and street lighting civils.

The technically challenging infill of the Jacob's Well subways was a particular feature of the works, requiring detailed sequencing, specialist operations and complex traffic management within a live city-centre environment.

Through careful planning, close collaboration and effective coordination of multiple workstreams, HCE successfully delivered its package as part of the wider transformation of Bradford city centre.

