

Halo Access A-Pod provides new future for contactless site security

Red CCTV's circle of light keeping Bristol Temple Meads station secure

It seems somewhat prophetic that Bristol Temple Meads should be the setting. Technology from the future is being used to protect an engineering marvel created at the dawn of Britain's Industrial Revolution, some 180 years ago.

Then, a young engineer called Isambard Kingdom Brunel set about creating the original Bristol Station, a 'mock Tudor-style' version of Paddington Station. It had an arrival and departure platform and was a gateway to the West Country.

He began building in 1838. It would provide a link between Bristol to Bath and was originally a fairly simply collection of buildings, which would also house the Bristol Committee of the Great Western Railway. Within a year, the Bristol and Exeter Railway were running their trains into the station, and Midland Railway also began services.

A Jacobean style structure was created at right angles to Brunel's original station but it was quickly evident that a new, bigger station was required to house the three train companies and their footfall and Matthew Digby Wyatt, who had assisted Brunel with the original design, was tasked with creating the new Bristol Temple Meads Station.

His design included a stunning, 38m steel and glass roof, created by Francis Fox, which would curve majestically across the platforms, offering protection from the elements for passengers and staff alike – another showcase of engineering ingenuity.

The building continues to evolve over the 200 years that followed but, in the main, Bristol Temple Meads, now afforded Grade 1 listing, remains largely as it was, a testimony to Britain's proud engineer past.

The march of time

But time has been catching up on this iconic structure, and Taziker was tasked with leading major renovation works – the first at Temple Meads for some 25 years – which includes metallic and woodwork repairs, the reglazing of roof lights, the installation of modern glazing and repair to ornate gable ends and beadwork onto the main train shed, the platforms and much more.



Taziker is renowned for its work on sites of historical importance having successfully renovated the world's first cast-iron bridge at Ironbridge in Shropshire and the renovation of the Clifton suspension bridge in Bristol, completed in accordance with Brunel's wishes but sadly after his passing, after his initial work on the bridge was forced to stop due to lack of funding.

Jason Worrall, Managing Director Engineering Services at Taziker, said: "To be entrusted with the refurbishment of this important transport hub is a great privilege and testament to Taziker's previous success on other historical landmarks, including Bristol's iconic Clifton Suspension Bridge, Iron Bridge and the Royal Albert Bridge in Plymouth."

Red CCTV

The project is scheduled for completion by 2023, and will be conducted whilst Temple Meads continues to operate as a working railway station.

Red CCTV has previously provided security solutions for Taziker on a number of projects, including the renovation of Iron Bridge, and is well regarded for its work.

But in particular, it is Red CCTV's environmentally friendly CCTV solutions that has really caused a stir, as British industry in general has been challenged to work towards net zero.

"Net zero isn't a buzz phrase for Red CCTV, we have been working towards this for several years," explained Managing Director Rob Kennedy.

"We introduced a solar powered CCTV trailer, the Fast Mast and then set about creating the Halo Smart Eco CCTV range – a CCTV System designed to reduce the need for large, diesel generators, pumping out CO₂ emissions and noise pollution.

"The system was initially powered by a hybrid power supply which allowed our towers to run silently, through the night, without generators and included onboard telematics to show clients how much fuel – and crucially how much CO₂ they had saved – by using this solution and the idea took off.





“We introduced solar powered and wind turbine versions, capable of totally eliminating the need for generators and now, we have a system which runs under its own power in the field for months without charge!

“It is the future for site security, and aside from the CO₂ savings our camera technology means fewer towers are needed on site to provide the same amount of protection.”

CCTV system

At Temple Meads, Red CCTV installed a fixed system, to protect the site, staff, plant and machinery for the duration of the project. The system includes remotely controllable 4K CCTV cameras, all capable of live streaming and equipped with the latest analytical software, to provide around the clock protection.

Red CCTV also installed a Halo Solo CCTV Tower on a secondary, remote compound, which needed to be 100 per cent self-powered, with no power available on site.

Aside from the fuelling, and obvious environmental benefits, the Red CCTV systems utilises the very latest analytic software, approved by the Home Office, and capable of reducing false alarms by up to 90 per cent.

The Red CCTV systems are capable of recognising genuine attempts at criminality, as oppose to the encroachment of animals, stray vegetation or items displaced by weather systems. All of the cameras are remotely controlled and capable of crucial evidence gathering.

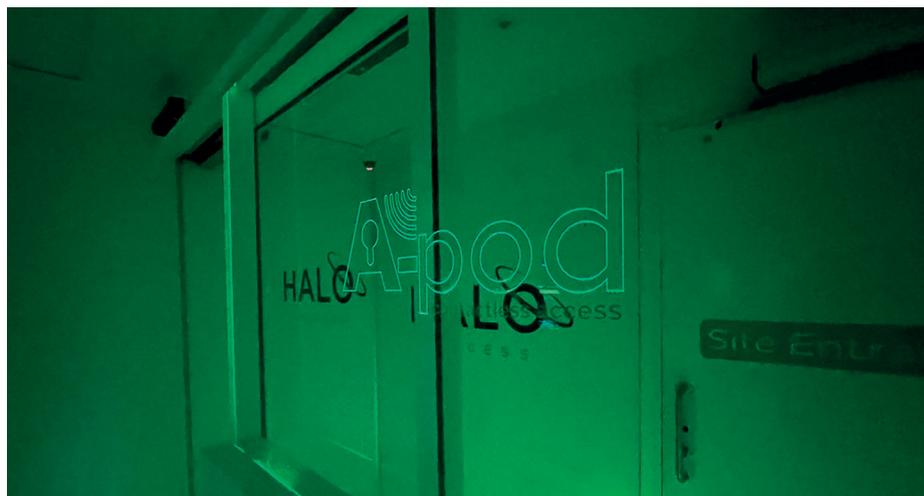
But the CCTV system is only part of the story. The real star of the show is the Halo Access A-Pod, a brand new state-of-the-art contactless site access solution, developed by Red CCTV during the COVID-19 pandemic.

Red CCTV created the Halo Shield range of products as a direct response to a client request for a system which would protect its key workers required to work through the pandemic. The client wanted to temperature check employees before they entered site, as medics had declared elevated temperatures to be a key symptom of COVID.

Engineers at Red CCTV created the Halo Shield body temperature measuring system, a standalone thermal imagery camera system, capable of scanning up to 30 people per second without any intrusion and crucially, without placing another member of staff at risk by requiring them to manually conduct testing.

Contactless site access solution

“It is a fantastic system, it’s highly accurate, it keeps everyone safe, there are no unsightly trip hazards or potential for error and it’s easily branded for clients,” explained Red CCTV Technical Director Ashley Cardno.



“It worked so well and gave us the inspiration to expand on the idea, and develop a totally contactless site access solution, which incorporates the temperature testing technology and much more and the Halo Access A-Pod was born.

“The A-Pod uses cloud-based technology to onboard staff, visitors, suppliers, or temporary staff and provide the required level of access, from day passes, short-term contract workers, all in real-time.

“Users are permitted entry to the A-Pod via a dedicated smartphone App, which utilises NFC and QR Access technology, whereby facial recognition software further checks the credentials of the user, conducts temperature testing and checks for face masks or safety helmets.

The A-Pod has undergone successful trials and has now been deployed by Taziker at Temple Meads, just a stone’s throw away from where Brunel began his original works all those years ago on.

The A-Pod

Steve Sargent, Senior Site Manager, Taziker said: “The A-Pod access system from Red CCTV gives Taziker a unique site access control system which provides site security and COVID-19 temperature checks when entering the worksite, providing facial recognition, temperature monitoring and hands-free access via a smart phone APP.

“The A-Pod system was setup with minimal effort by Red CCTV Engineers and is very easy to use, with on-call support from Red CCTV.”

Neil Harrison, Managing Director Infrastructure at Taziker, said, “The A-Pod system from Red CCTV has been an important factor in keeping our site and our people safe during the recent work at the station. By utilising this technology, we are able to record access to the site and monitor the temperature of employees and visitors to ensure the continued safety of our people, the site compound and the station itself.

“We have completed two blockades in the past few months to carry out important stages of the project at Bristol Temple Meads, and with our stringent health and safety standards, we will continue to use the A-Pod to ensure site safety is upheld every day.”

Technology from the future, protecting the past. Brunel would undoubtedly have doffed his trademark stovepipe hat to such innovation. ■

‘Providing the person meets all of the required criteria, a door will open which allows the person onto site’

“Providing the person meets all of the required criteria, a door will open which allows the person onto site. If the person fails for any reason, entry to site will be blocked and a door opens to allow them to exit, away from other users waiting to enter the A-Pod.

“The system allows clients real-time access to data, they can control permitted numbers of people on site and it allows them to trace individual access points if required.

“The whole system is self-contained, the A-Pod can be deployed anywhere, and it provides a future-proof, totally safe and secure site access solution.”

To learn more about the Halo Access A-Pod contactless site solution or Red CCTV’s innovative site security solutions contact the team at info@redcctv.co.uk