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HS2 Old Oak Common | BBVS JV | SVEA Barrier System

A flying start for SVEA at HS2, Old Oak Common.

HS2 Old Oak Common project highlights the successful deployment of Chevron's innovative safety barrier system in a complex urban environment. Formally launched in the UK at the end of April 2024, the SVEA barrier system was quickly put to use on this high-profile infrastructure project. Balfour Beatty VINCI Systra (BBVS JV), responsible for overseeing the scheme, reached out to Chevron Traffic Management's low-speed division for their expertise in planning and providing essential traffic management services during trial excavations ahead of construction of the main station.

The Challenge

The preliminary works required a compliant vehicle restraint system within a temporary 20mph speed limit zone to effectively delineate vehicles and protect site workers around excavation sites. Additionally, certain areas needed the creation of a pit lane to facilitate safe loading and unloading of materials. BBVS JV identified three critical factors when selecting an appropriate barrier system for this project.

- The speed of installation was crucial to minimise disruptions and adhere to tight scheduling demands.
- They needed a safe and high-performing system with a narrow footprint to ensure worker safety while maximising available working space.
- Given the close proximity of residents and pedestrians, sound-reducing properties were essential.

Chevron's SVEA Barrier System met all these requirements efficiently, demonstrating its capability as an effective solution for urban construction challenges while maintaining reduced noise impact for the local community.

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The Solution

BBVS JV faced a significant challenge in finding a barrier system that met stringent compliance requirements while ensuring safety, speed, and performance. Traditional barrier systems paired with acoustic blankets were considered but ultimately fell short of these needs.

The answer came with the introduction of Chevron's Swedish-engineered SVEA Barrier System. This innovative solution stood out due to its rapid and safe installation process, along with its impressive noise reduction capabilities and SVEA's ability to decrease site noise by up to 25dB, thanks to its advanced SoundPanels. Additionally, its narrow footprint was an advantage, offering enhanced safety and compliance within limited space constraints.

Chevron's low-speed operational business played a crucial role by delivering an end-to-end service package. This included planning and scheme design, safe and efficient installation supervised by our traffic management operatives, ongoing management throughout the project's duration, and removal of the barriers. So far, Chevron has successfully completed six installations of the SVEA Barrier System at Old Oak Common, with further deployments planned as part of this infrastructure project.

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About the Chevron Group

The Chevron Group, part of Ramudden Global, are the UK's leading infrastructure safety expert, keeping the country safe around road works, construction sites and industrial work zones. Offering specialist solutions in traffic management, vehicle and pedestrian barriers, green infrastructure services, design services and digital 24/7 remote monitoring.

About HS2 Old Oak Common

HS2 is the second purpose-built high-speed railway after HS1, which links London to the Channel Tunnel. Once operational, HS2's British-built bullet trains will provide zero-carbon journeys between the UK's two largest cities, Birmingham and London. Services will continue to Manchester, the Northwest, and Scotland using the conventional railway network, cutting journey times.

Old Oak Common will be the UK's largest train station ever built. It will become one of the country's most vital transport hubs, with an estimated 250,000 passengers using the station daily, directly connected on the UK's railway network to more than 170 destinations.

HS2 Fact Box

HS2 is currently the **largest infrastructure project in Europe**, spanning from London to Birmingham and involving mostly new railways.

HS2 aims to develop **the most sustainable railway in the world**, offering zero-carbon rail travel. It prioritises the enhancement of biodiversity and the creation of social value.

The scale and complexity of HS2 are unprecedented in the UK. Its total route length is nearly 300km across 350 active sites and includes two tunnels, 12 viaducts, and nearly 60 bridges.

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After 3 years, HS2 has completed the excavation of the Old Oak Common station underground box – a vast structure big enough to accommodate the equivalent of 300 Olympic-sized swimming pools.

Over the project's lifecycle, **at least 2,000 apprenticeships will be created** across HS2 Ltd and its supply chain.

Over 100 acres have been marked for development in the area around Old Oak Common, with plans to **create 25,000 new homes and 56,000 new jobs in the area**.

SVEA Barrier Fact Box

The SVEA Barrier System is a **new generation of temporary vehicle restraint**, designed, engineered, and manufactured in Sweden.

SVEA Barrier System advantages

- 10-20% lower transport costs and 50% shorter installation time.
- Shorter minimum tested length required on site.
- Time saving – quick and safe connection of barriers with no loose parts. No need to anchor barriers to the ground.
- Anti-climb up to 5m. Noise and privacy protection up to 4m.
- CE-certified and crash-tested in accordance with BS EN 1317-2 in load classes N1 and N2.
- Barrier can be digitised to allow monitoring of site events, such as impacts or incursions.

The SoundPanel reduces noise from sites by up to 24dB. Here are some of its advantages:

- Reduces noise from sites by up to 24 dB.
- Noise and privacy protection up to a height of 4m.
- Anti-climb protection up to a height of 5m.
- Access control of the work area through gate and barrier modules.
- Panels have an angle range of 200°.

Even with SoundPanels installed, the system maintains its adaptability to any ground conditions, compensating for variances in height of 140mm and slopes of +/- 3°.

With fewer component parts, our SVEA Barrier System **delivers 10-20% lower transport costs and 50% shorter installation times**, with less risk of injuries.

The Chevron Group

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