



Working in Live Infrastructure Environments - What You Have to Get Right

An efficient transport infrastructure is a characteristic of every advanced and successful economy. Which means that businesses and individuals are highly dependent on accessible and free-flowing road and rail networks.

When any part of those networks has to be closed or restricted there can be significant knock-on effects.

Our dependence on transport systems makes the ability to work safely in live environments particularly valuable. Often the challenges are significant, such as when introducing step-free access to ageing rail or tube stations that were never designed with this in mind. But the prize of permitting travellers to carry on more or less as normal is significant, so it's worth applying some creativity and innovation to achieve it.

There are several factors that you have to get right. We outline some of the main ones here.

Safety

It should go without saying that there is absolutely no room for compromise when it comes to the safety of operatives or the travelling public. Ultimately, if there is no way to guarantee safety while work is in progress then assets have to be closed. Often, however, by taking a **more creative approach to methods and scheduling** it's possible to keep people moving.

Scheduling

With creative scheduling, operations that cannot be done safely in a live environment can be concentrated into overnight and weekend works. This calls for a different approach to planning to fit key operations into **tight windows and short closures**. To the travelling public the asset to all intents and purposes remains open and fully functioning.

Innovative Mindset

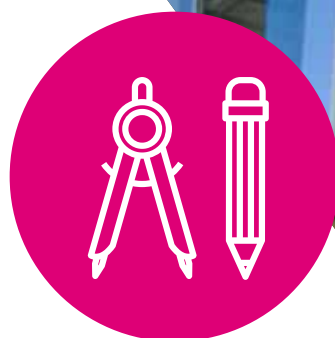
The key quality is adaptability, supported by an enthusiasm for exploring different methods and materials. It's a shift in mindset from 'how do we usually do this?' to 'how could we do this without having to shut everything down?' Part of this is accepting that while we might not have all the answers, they are probably out there somewhere.

Offsite Construction

The need to minimise closures and reduce disruption is driving the growing use of offsite construction. We commonly use prefabricated overbridges, walkways and buildings such as new ticket halls that can be speedily erected or installed at weekends or overnight.

Design and Modelling

When fabricating elements such as overbridges offsite, there can be no snags when it comes to installation. Both the design and the installation process have to be carefully modelled to leave nothing to chance that could lead to any kind of overrun. Modern 3D modelling tools make this process much more foolproof, ensuring that the installation teams know exactly what they need to do before they arrive on site.



Prototypes and Trials

Further reassurance comes from using **prototypes and mock-ups** to test and refine processes before they are used in the live environment. This approach has been used by Osborne on many projects to manage potential safety risks and ensure that the process can be implemented onsite with no complications or delays.

Working in live environments is challenging because it demands a culture that blends expertise and experience, along with the drive to explore new ideas and innovations. It's that type of challenge that drives us as an organisation.



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