

DELIVERING COVENTRY'S 'TURN UP AND GO' FUTURE

The Waterman Aspen team discuss their work with Coventry City Council to help deliver active travel schemes as well as Coventry's Very Light Rail (CVLR) – an affordable zero emission mass transit system designed and built in the city and the wider West Midlands

This summer Coventry councillors suggested that the first CVLR route could be running by 2027, following the success of a 220m-long on-road test track.

CVLR's purpose is clear: provide a regular, reliable 'turn up and go' service that links communities with education, employment, retail and healthcare to form the backbone of an integrated transport system.

The combination of CVLR and an all-electric bus service aims to provide an accessible and attractive alternative to private cars. It will also complement rail and active travel options.

The city expects to attract inward investment and public realm improvements while improving air quality. With the CVLR system, born out of Coventry and predominantly designed and manufactured in the West Midlands, the council aims to seed a market leading transport system and create new jobs. To deliver the



project, the council looked for a team that can scale and adapt without locking in long-term roles.

Waterman Aspen's secondments have supplied vehicle engineers, a track expert and technical project managers – specialists able to thrive in a transformative environment and keep delivery on time and on budget. This flexible deployment has been central to demonstrating that CVLR works and proving that it could be deployed locally, nationally and internationally.

Nicola Small, VLR programme director, says: 'Working with Waterman Aspen means there is always someone I can contact whenever I have a query, need to recruit additional resource or want to change the scope of a particular role.'

'Waterman Aspen works with me in a collaborative way, to make sure that the team provided is appropriate – they need to have the right mindset to work in innovation and delivering as required.'

Why very light rail is different

CVLR has been engineered to strip out cost and complexity relative to traditional light rail. Here's how:

- It fits existing streets: Vehicles handle tight radius curves and operate at highway speeds, with on-board power eliminating catenary and major kerblines or land take changes.
- Shallow track and fewer utility clashes: At around 300mm construction depth and a vehicle mass of roughly 11–16 tonnes, the track can typically be installed above utilities, enabling a risk assessed 'leave in situ' approach that reduces diversions and cuts risk.
- Standardised components: A small set of modular track elements simplifies logistics and speeds up construction.
- The vehicle is designed for autonomous operation: Once implemented, dynamic headways can match peak demand without oversizing vehicles, fitting seamlessly into Coventry's streetscape.

All this combined creates a mass transit option for medium sized UK cities that can be delivered quickly while integrating with buses, rail and active travel.

From concept to carriageway

In June this year, the council conducted an on-road test and welcomed over 3,000 people to experience the CVLR system first-hand, which included rides. It successfully proved that the track could be constructed in the live environment quickly and within the cost envelope. It also demonstrated to utility companies how they can access assets and build new ones under the track form, thanks to techniques such as mini HDD (horizontal directional drilling), impact moling for 75mm and 90mm and keyhole drilling – drilling a core down from the surface through the slab.

To see a project move from concept to a working example constructed within a public highway is a testament to Coventry City Council and its partners. It's rare for mass transit and very light rail systems to move beyond the design and concept phase. Gaining positive feedback from members of the public, who



are ultimately the end-users of this project, was also a huge bonus.

Active travel and the network effect

CVLR is just one pillar of the city's wider travel strategy. Coventry has partially implemented a city centre traffic management plan to optimise streets for walking, cycling and public transport as the most desirable options. This includes public transport priority between Coventry Rail Station and Pool Meadow along with a new cycle lane being implemented soon. Major corridors such as the Binley Cycleway, Eastern Green and Coundon have seen increases in walking and cycling, while junction improvements – including one at A444 Foleshill Road – have aided and improved safety for people to wheel and cycle across complex roads.

Waterman Aspen's wider secondments into highways, transportation and public realm teams have helped the council sustain this delivery pipeline.

Mark O'Connell, acting strategic lead for highway operations and delivery at Coventry City Council, says: 'Over many years, the secondment services provided by Waterman Aspen to Coventry City Council have been instrumental in the successful design, delivery, and management of a wide range of highways, transportation and public realm schemes.'

'The team's expertise, professionalism, and collaborative approach have consistently supported our ambitions for sustainable transport and active travel.'

Lessons for UK cities

Coventry's experience shows that very light rail could be delivered at a cost profile that makes sense for more places, without sacrificing the benefits of established tram systems. The council is already sharing lessons through conferences, trade journals and the press on CVLR's engineering model and on how to overcome barriers inside local government. For authorities wrestling with utility risk, programme uncertainty and constrained budgets, CVLR offers a pragmatic and scalable template for urban transit.

Coventry uses a blend of political and visionary leadership and specialist secondments, contributing to a focus on innovation. That same culture is evident across Waterman Aspen's national portfolio as they assist councils with their agendas for clean-air, active travel and rail projects up and down the UK. The rail team's collaboration with Coventry City Council makes Waterman Aspen currently the only consultancy supplying the niche expertise required for very light rail.

As Coventry turns pilot success into a citywide network, the focus will be on route development, integration with buses and rail and improved city centre routes that support walking and cycling. With Waterman Aspen's flexible, multidisciplinary support, Coventry is building an affordable transport system that is zero emission at the point of use, attractive to investors and tailored to the way people actually move. It's a blueprint for how local authorities can deliver transformational mass transit alongside active travel – faster, with less risk, and with the community at the centre. ●

(Above) A CVLR vehicle; (below left) Nicola Small with some of the WA team and (below) Ms Small with WA staff on a test CVLR ride

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