

https://lightrailuk.co.uk/media/files/LR-UK-liverpool waterfront trampdf



Direct access from/to the City Centre transport Hubs. Link to Lime St. Railway Station and Bus Station and Liverpool One Retail Centre.

Frequent and Flexible Service, Additional timings for Cruise Liner's arrivals and departures 200,000 passengers in 2024 and will exceed 300,000 once the new infrastructure works are completed. Tourist and City Cars for all weathers. Tourist spends captured in LCR

A 2<sup>nd</sup> generation working tram museum line. A Clean and Green Gateway to the North West

No Road/Tyre/Brake Particulates (NEE)

(A genuine zero emission vehicle).

No Air Pollution at Point of Use!



Self-powered new build tradition summer tram cars



City Cars (3) autonomously coupled, 300 passengers



## **Tritonex**

an absolute game changer for all things hydrogen with 100% Angel share captured and corrosion protected <a href="https://triton-hydrogen.com/">https://triton-hydrogen.com/</a>



## Why Green Hydrogen Trams?

Liverpool City Region, The North West showcase doorway



A Coventry VLR example.

Trams have a proven record of getting people out of their cars whilst producing zero emissions and particulates at point of use and that these very light rail\* (VLR) offers significant potential for enabling these benefits to be realised on a significant larger scale.

\* VLR trams are built to International
Light Rail Standards and are a low cost starter line.
Less than £10 per track Kilometre and are a significant
Public Transport Legacy.

The national delivery of an integrated transport system will often involve initiatives that span local authority and county boundaries and mechanisms for coordination at regional levels are needed to help promote and deliver this project.

The proposal for a demonstrator line to Liverpool city centre from the Liner Terminal for very light rail, a system involving vehicles on much lighter rails compared to current tramways with a dramatic reductions in construction costs, faster construction and less disruption.

The largest share of transport emissions comes from cars, accounting for 38% a 20% reduction by 2030!...Transport Scotland
Jan 2022

As Trams have a high modal switch circa 25% - 32%, this demonstrator line can achieve that target along this corridor

Statistics in Tram integrated Nottingham show that LEZs are not required

Light Rail (UK) Group E-mail Jimh@jimmyharkins.com

Auchenshuggle Junction, Moore, Warrington, Cheshire, United Kingdom 01925 740675 07721378223 www.lightrailuk.co.uk

## Legal utilities are left in place



\*Installation less than £10M per Km

## Samples of road space reallocation





Light Rail Consultants, Transport Engineers, Private Enterprise, Politicians, Academics, Environmentalists and others.



The new track is laid just 30cm within the road's surface, minimising the need to relocate pipes and cables which is time-consuming and expensive.

This is achieved by taking advantage of cutting-edge materials, while still making use of standard rail parts

Hydrogen/electric buses can only be seen as a welcome interim solution in the short term with no transport legacy, they still remain a source of significant particulate pollution (\*NEE) arising from the friction between tyres and road surfaces while steel wheels running on steel rails create zero emissions of this type.

\*All UK Governments are aware of this (Greenwash) NEE pollution

\*39,000 folk died from Particulates

Commercial specialists in low cost, VLR, affordable & sustainable tramways