Light Rail (UK) Group

Auchenshuggle Junction, 8 Beechmore,
Moore, Warrington, Cheshire,
England, United Kingdom.
WA4 6UE
Tel (+44) (0)1925 740675 (0) 07721378223
www.lightrailuk.co.uk email JimH@jimmyharkins.com

June 2022

Two Bridges Sustainable "H" Tram Route (A92) Proposals

MRV 3A Hydrogen Tram Qatar

Light Rail (UK) Group

Re-purposing former Trunk Roads

"A Forgotten National Infrastructure Treasure"

INTRODUCTION

1. Why Trams?

There is a need for a top-level step change on who uses our roads! Is it only exclusively rubber wheeled vehicles or as just over a generation ago, steel on steel in the road?

The excessive use of the former which has contributed significantly to poor air quality etc., the tram is a not so small but significant green starter tool in our armoury to fight Climate Change.

When the second generation of trams, now known as Light Rail, started with Tyne and Wear Metro, Manchester Metrolink, Sheffield, Croydon, Nottingham, Edinburgh, and Midland Metro much use was given to former heavy rail alignments and incorporated into the subsequent routes.

This was done mainly to save costs and the former heavy rail alignment were adapted and broadly speaking made to fit in with the proposed route light rail route.

There are still several former railway alignments which could potentially still be used.

Since the end of World War 2 our Strategic Road Network [Trunk] has been improved to provide the-connectivity, efficiency, and wider economic benefits. Over this period, we have seen small trunk roads being rebuilt to three lane, dual carriageway standards.

In many locations a bypass has been built to relieve congestion and pressure on the bottle neck towns and dormitory areas. Eventually higher capacity motorways were built, with extra carriageway added until they in their turn have become saturated.

This has left a legacy of former truck roads that are now underutilised, and one carriageway could be repurposed for other transport modes in connection with other developments such as park and ride facilities close to Motorway, Bypass junctions, and Railway Stations.

This report will look at the Policy Objectives emerging from government and in particular the decarbonisation and clean air agendas.

Many of these former trunk roads provide a direct and relatively unimpeded access to the business and commercial centres of the cities and could become ideal public transport corridors using clean and energy efficient vehicles such as Trams or smaller Very Light Rail according to the predicted demand.

In many cities, the air pollution levels now exceed the WHO safety recommendations, and the removal of cars would assist in their reduction. Furthermore, the use of rail-based vehicles would minimise the pollution caused by Non-Exhaust Emissions (NEE) caused by the interaction of rubber tyres and the bitumen-based road surface.

This photo montage shows how one carriageway could be converted to a public transport lane and the remaining carriageway could be used for local traffic. Ideally, where only rail traffic is required, traditional ballasted track could be used reducing the cost of laying the tracks, with embedded tram track only required at road junctions or where the route needs to be shared with local buses.

This, along with the use of battery energy storage with charging points or clean onboard generation,

the city centre could be wire free although not recommended for the whole route unless for the lighter vehicle options are used.

This solution fulfils many of the current government policy objectives, improves access to major cities helping the local economy, employment, and social mobility whilst minimising air pollution and decarbonising local transport.

2. STRATEGIC ROAD DEVELOPMENT SINCE WORLD WAR TWO

Since the end of World War 2 our Strategic Road Network [Trunk] has been improved to provide the-connectivity, efficiency, and wider economic benefits, involving local deliveries and journeys in regional road projects led to many opportunities for infrastructure-led economic recovery. This has led to maximising the economic impact of the SRN - access to intermodal transport, and providing the connectivity needed for businesses, communities, and households and has to lauded.

By tackling legal and regulatory hurdles for road projects, infrastructure development in the UK has ultimately delivering physical road upgrade projects in England and strategies for overcoming engineering challenges.

Over this period, we have seen small trunk roads being rebuilt to three lane, dual carriageway standards and eventually in many locations a bypass has been built to relieve congestion and pressure on the bottle neck towns and dormitory areas.

Eventually the top of the range motorway roads was built, multi carriageway added until they in their turn have been saturated and today, we have a new Government Policy RIS2.

3. SECOND ROAD INVESTMENT STRATEGY

The Second Road Investment Strategy (RIS2) which sets out the government's plans for developing and improving the Strategic Road Network between 2020/21 and 2024/25, so that its long-term vision for a network that is safe, reliable, and efficient for everyone is met. £27.4bn will be made available to fund the operation, maintenance, renewal, and enhancement of the network that will move us closer to that vision, through a detailed Investment Plan and a robust and tested Performance Framework.

When the RIS2 was launched Transport Secretary the Rt Hon Grant Shapps Secretary of State for Transport said "If we are to invest £27.4 billion over the next five years on our strategic road network, it is crucial that we use this funding to improve the lives of all.

"Through this investment we want to make the network safer, more reliable, and greener. Roads, especially repurposed roads are, and will remain, vital to our way of life and part of our SRN encompasses the roads that are most important for people to get around the country and for businesses to receive supplies and get their goods to market. Our amended plan will help ensure that they continue to deliver for the country Road Investment Strategy 2 (RIS2) 2020–2025 is sensitive to the places through which it runs.

With a stronger focus on the differing needs of road users and adoption of new working practices and green technologies, we want people using the network to enjoy smoother, more consistent journeys."

By making the most of green infrastructure and good design, we want people living alongside the network to experience less noise, light, and air pollution. And this addition to RIS2 must support the Government's wider plans for decarbonising road transport.

4. MORE ROADS ARE NOT THE ANSWER

After seventy years + of road building what is clear to most observers is that we cannot build more roads just for rubber wheeled vehicles to get us out of the scenario where we are today, the proposed RIS2 needs to address the significant threat now facing us in the form of Climate Change and with a little step change in thinking, who uses the roads and funding, the principles of Decarbonising Transport, with a vision for how a net zero transport system will benefit us all.

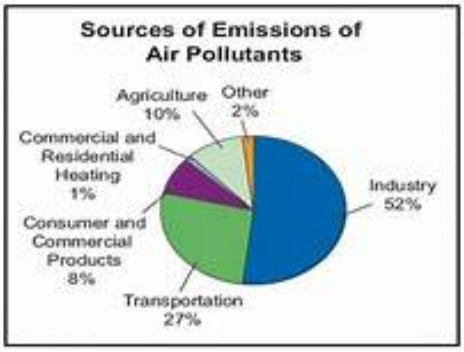
Public urban transport and active travel should be the natural first choice for our daily activities. We will use our cars less and be able to rely on a convenient, cost-effective, and coherent public transport network with some of our proposals being almost oven ready small-town starter trams.

Light Rail (UK) Group

In the process of road building to where we are today, a significant number of towns and suburbs have lost most of their car/freight traffic to the much faster newer bypasses and Motorways leaving these fine trunk roads carrying a shadow of their former vehicle numbers and in some cases being downgraded to either a local road or a B road although the infrastructure still remains to a continually high standard and can still provide some of the following benefits such as connectivity between key motorway and A roads, rail and airports and further intermodal links, urban areas and other centres of business, commercial activity and employment.

Economic contribution - supporting the levelling up policy agenda and helping improve efficiency for commerce, trade, and the indirect movement of freight.

Future proofing - assessing and factoring in future green and sustainable capacity pressures and changes in user demands, and strategies for reducing interruptions and enabling quicker journeys.



Road Transport is responsible for 27% of the source of emissions of Air Pollutants are caused by "Tail-Pipe emissions but do not include Non-Exhaust Emissions (NEE)

Government have only acknowledged NEE in the Defra Report July 2019 & Defra Micro Plastics May 2020 and we call for this to be changed to stop giving a misleading and untrue situation.

Light Rail (UK) Group

June 2022

Two Bridges Sustainable "H" Tram Route (A92) Proposals

MRV 3A Hydrogen Tram Qatar

A92 Bridge of Don to Bridge of Dee Transport Study Overview

Aberdeen City Council is carrying out a transport study to investigate problems and opportunities along the A92 corridor (Anderson Drive and the Parkway) between Bridge of Don and Bridge of Dee, with a particular focus on walking, wheeling, cycling and bus travel.

The main aim of this study is to identify improvement options that will encourage more people to travel sustainably for trips along the corridor (i.e. walking, cycling and using public transport), particularly for regular commuting journeys.

We want to hear from members of the public and key stakeholders to better understand views on the existing transport network along the corridor and what options should be considered to improve the sustainable transport offering.

The study will take cognisance of the opening of the Aberdeen Western Peripheral Route and the desire to 'lock in' local benefits, including opportunities for improving local connectivity, as identified in the Roads Hierarchy, agreed by ACC in 2019. Consideration will be given to options for how the A92 should function, given that it is no longer a strategic route.

The study area includes The Parkway, Persely Bridge, Haudagain Roundabout and Anderson Drive (North and South) as well as the B997 Scotstown Road / North Donside Road.

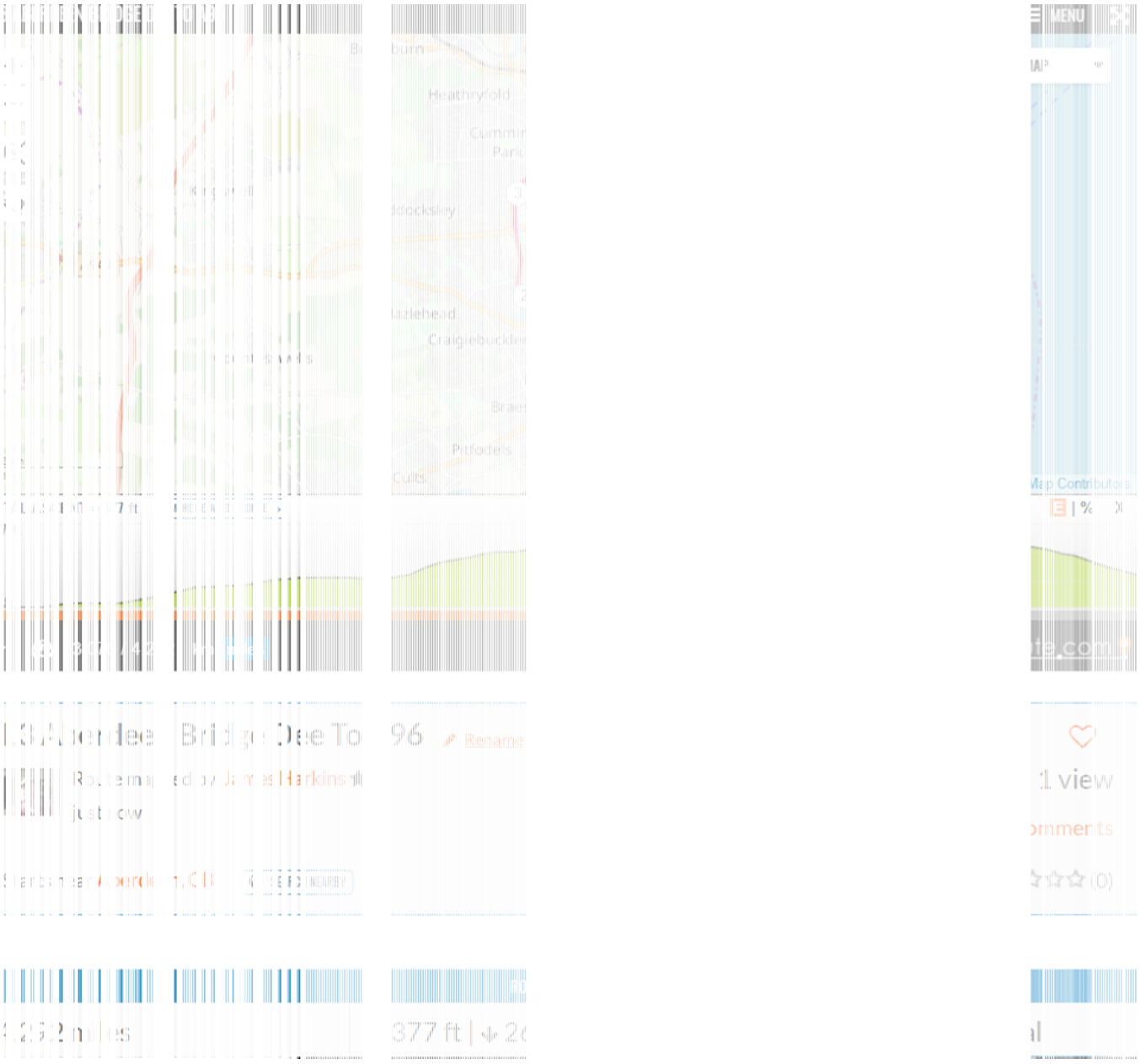
The extents of the study can be seen below:

Light Rail (UK) Group

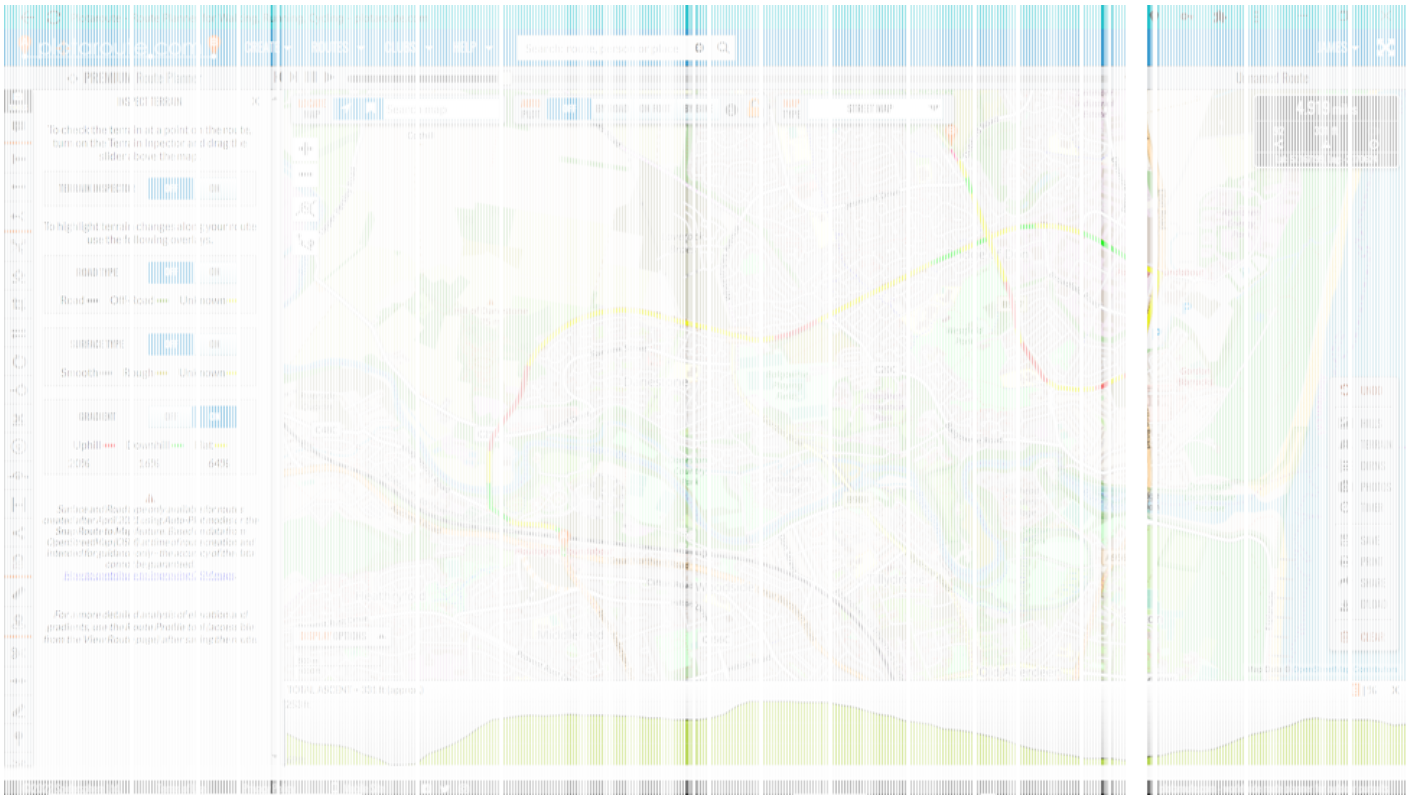
Case Study 1

Aberdeen A92 Bridge of Dee to Bridge of Don Including Scotstoun Road Loop

Map 1: Bridge of Dee to Haudagain Roundabout A96



Map 2; A 96 Haudagain Roundabout to Scotstoun Country Club including loop



FUNDING & DELIVERY

3 FUNDING & DELIVERY

The National Road Fund (NRF) will provide funding to enhance the Major Road Network (MRN), the most important roads owned and operated by local highway authorities and contribute to large local major road schemes. This investment complements the funding the Department provides for maintenance of local roads and will help secure a consistent and coherent network of regionally important roads that are seamlessly integrated with the SRN.

A new Acceleration Unit to speed up transport infrastructure projects and build back better from COVID-19.

"New unit will boost the delivery times of major transport projects as new funding is announced. 'Acceleration Unit' launched to speed up delivery of transport projects as the government announces new wave of funding to level up parts of UK.

Campaign for Better Transport Chief Executive and consumer champion Darren Shirley to lead the new team of non-government specialists to drive forward progress on key projects launch coincides with around £360 million of investment to build back better from COVID-19".

Vital rail and road upgrades that will create jobs, increase connectivity, and boost the economy will be delivered more quickly, thanks to the launch of a new Acceleration Unit announced by the Transport Secretary Grant Shapps today (21 August 2020).

The new team of specialists will join the Department for Transport (DfT) to tackle delays to infrastructure projects and drive forward progress for passengers.

The unit is set to be in place November 2020 and will be directly accountable to the Transport Secretary. It will be led by Darren Shirley, currently Chief Executive of the Campaign for Better Transport and formerly of Which? Magazine.

4 NEXT STEPS

The Major Road Network and local road modernisation - improving local access and reliability, tackling potholes and road quality, and meeting changing needs for low-cost sustainable public transport using steel on steel in the street will prepare the road network for decarbonisation by 2050 - scaling up low-carbon transport infrastructure, EV charging in the P+R areas, and options for active travel.

As buses run on rubber tyres and are a significant contributor of fine particulate pollution 18% and rising, and a low modal switch, we see buses in this arena as feeder vehicles to the low-cost tram corridor.

Costings will be varied but a UKTram figure circa £9-12 Million per track kilometre will certainly be lower than budgeted for in RIS2.

We are calling for further investigation, a pump priming initial study is required to identify where these assets are. A Pilot project to maximise this greatly underused green potential national resource which represents a significant potential savings and value to the Public Purse and how they can easily bring into used for the green benefit of all.

As a nation, we have the money; local experts and this nasty nettle must be grasped and a statesman's view over several generation funding is needed and we will go a very long way to cleaning up, regenerating and Building Back Better our cities and towns.

A source of relevant developments, Documents, and possible funding:

Acceleration Unit - around £360 million of investment to Build Back Better from COVID-19

Road Investment Strategy 2: 2020–2025 (RIS2) - from DfT and Highways England, with plans for £27.4bn in long-term road network investment and management - including:

delivery of new physical road infrastructure by repurposing lightly used former trunk roads by upgrading of existing assets.

ensuring the system is prepared for new and emerging challenges, such as the wider adoption of electric trams and autonomous vehicles.

the *Transport Infrastructure Investment Fund* - £1.7bn for improving roads and road safety, priority tram lanes, repairing bridges, and filling in potholes.

Highways England: Strategic Business Plan 2020-2025 - for road project development as part of RIS2's allocated funding, and for developing England's Strategic Road Network (SRN)

Decarbonisation - the Government outlining its vision for a decarbonised road network and changes to its use - which follows key policy initiatives, including:

Reducing emissions from road transport: Road to Zero Strategy - the policy, investment, and infrastructure priorities required for transitioning to total zero emission vehicles by 2040.

Government vision for the rapid charge point network in England - with the *Rapid Charging Fund* announced in *Budget 2020* as part of £500m for EV charging infrastructure.

Gear Change A bold vision for cycling and walking - with £2bn for walking and cycling infrastructure development can run parallel and give access t to other transport modes.

New Station Guidance - from Network Rail and Highways England on developing local rail and road transport system links, aimed at relieving pressure on the SRN and improving local access.

As buses run on rubber tyres and a high fine particulate pollution and a low modal switch, we see buses in this arena as feeder vehicles to the low-cost tram corridor.