Light Rail (UK) Group

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Dear Supporters of Clean Air,

We are contacting you today because of your concern and interest on air pollution, and we need all the help we can get on this **very urgent issue** - the consultation on the environmental targets that is currently running (it closes on 27 June). Government is consulting on its proposal to enshrine a commitment to air pollution targets of 10mg/m3 of particulate matter (PM2.5) by 2040 - ie in 18 years.

This is incredibly disappointing and will cost the health of thousands or even millions of people across England. PM2.5 is one of the most toxic pollutants, basically tiny bits of matter from all kinds of sources including woodburning and tyre wear that can cross our lungs and enter brains, placentas and other organs.

The World Health Organization (WHO) has stated really clearly that industrialised and rich countries such as the UK, should be aiming for much stricter levels to be achieved much sooner (more information here). And interestingly the Clean Air Fund found that the vast majority of England could achieve these targets by 2030, if Government just funded and implemented all the policies it has promised to date. (we are still waiting to hear back from Government on the letter and will keep you posted!).

Right now we are doing a Twitter Storm to create awareness of the consultation, ie we are asking all of you if you are on Twitter to **tweet about the consultation using the hashtag #CleanAirNow.** You can find more details on the Twitter Storm including some click-to-tweet tweets HERE. These are a couple of tweets we have created especially for you: https://ctt.ec/82U1V and https://ctt.ec/acnSd (just click on the link and it will open a tweet, ready to go!).

SECONDLY, can I ask you all to respond to this consultation, asking for much cleaner air much sooner and ask friends and families to do the same?

Asthma and Lung UK devised this tool, that makes it really easy to respond to the consultation!

The deadline is 27 June.

Please share far and wide, in newsletters, WA-groups and wherever else we can get support. MANY THANKS.
We really wants thousands of people asking for cleaner air, healthier kids much sooner than proposed.
You can find pre-drafted tweets and messages and emails in this folder.

If you want to join our mobilisation efforts for the next 6 weeks - you are all invited to join our WhatsApp group here.
Many, many thanks! Jemima (founder Mums for Lungs)
Lastly, please can I ask you to join our mailing list here: https://www.mumsforlungs.org/sign-up

Light Rail (UK) Group

Mums for Lungs, A possible solution

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

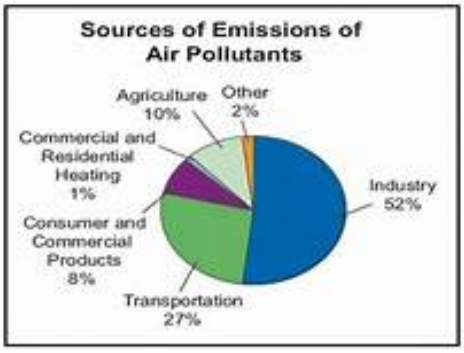
thinking, who uses the roads and funding, the principles of Decarbonising Transport, with a vision for how a net zero transport system will benefit us all.

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.

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.

Case 1

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.

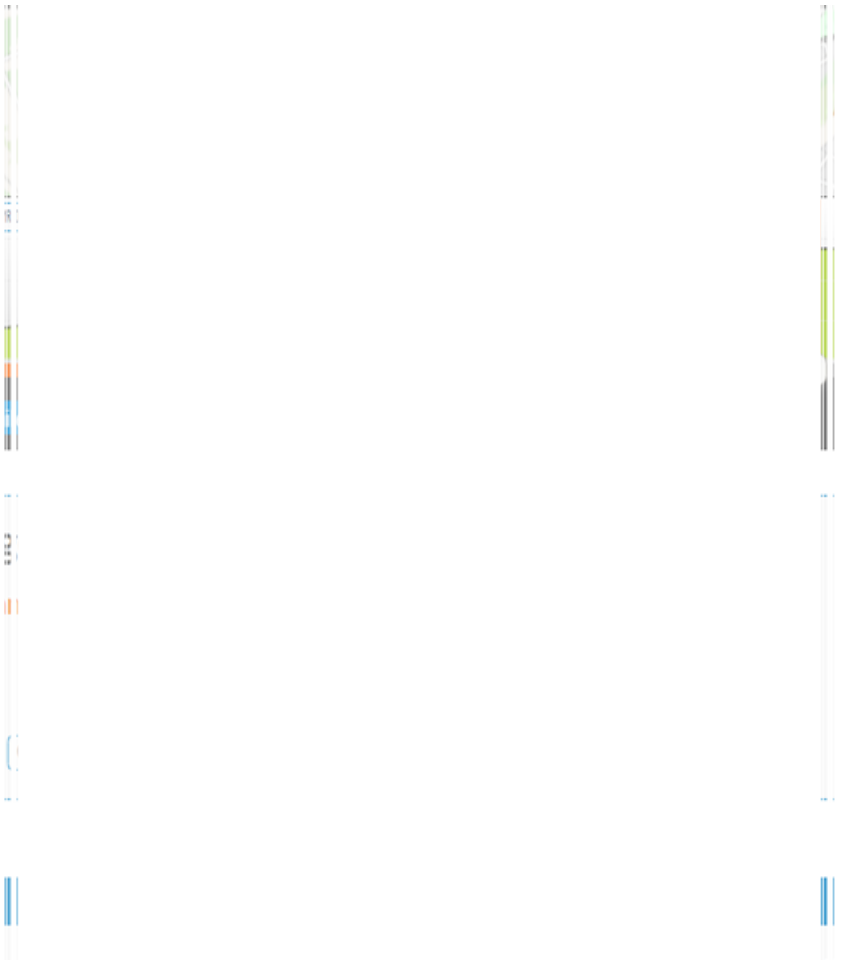
The study area includes The Parkway, Persely Bridge, Haudagain Roundabout and Anderson Drive (North and South) as well as the B997 Scotstown Road / North Donside Road.

Map 1

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



There is a proposed large development to the west of the line at Countesswells, A tramroad eastward from Countesswells giving connection along Countesswells Road to N. Anderson Drive would relieve any road widening etc with this planned development. Equally to the West, the Tramroad could be extended up to and through Kingswell with a P+R to the north of Kingswell

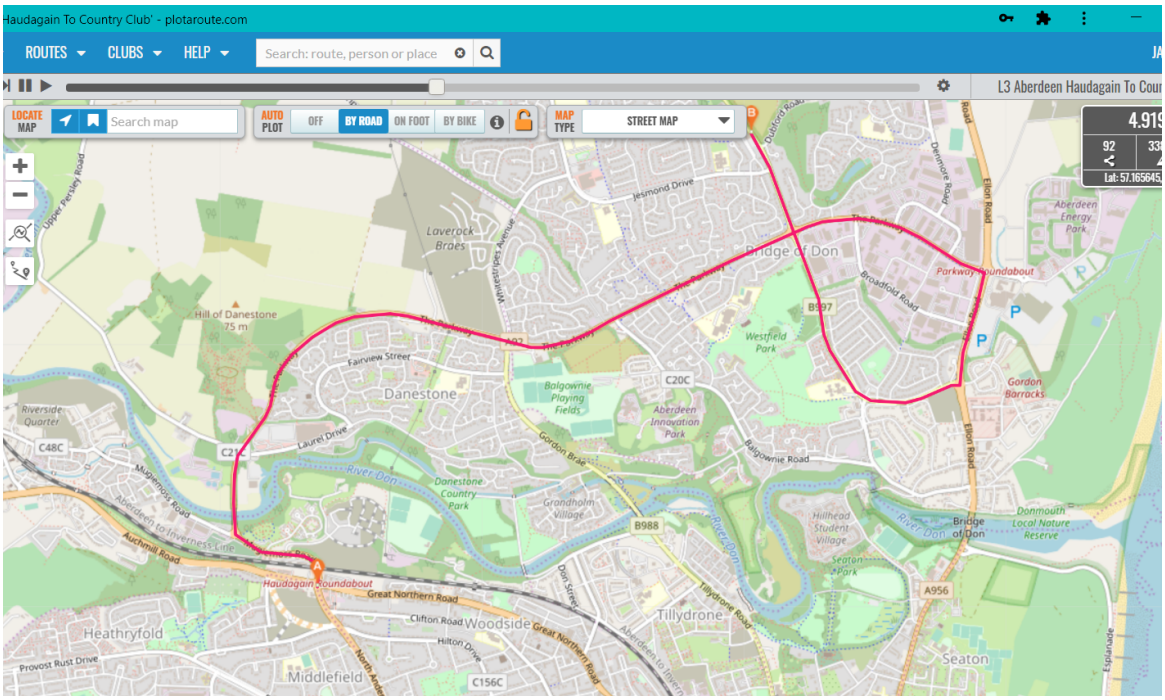
Potential Universities Line

A further East – City Centre – West route has been identified starting at Garthdee Rd A92 Line, shared P+R, A9013 eastwards to Ruthrieston - Mannofield – Union Street (Join with South Harbour Line) – Kings Street – Ellon Rd – Castlegate – University of Aberdeen – Kings Church Bridge of Don joining line on A92

This will in effect give an outer circle line with the second line penetrating the central shopping area. Further city centre lines can be developed over a period of time subject to budget etc.,

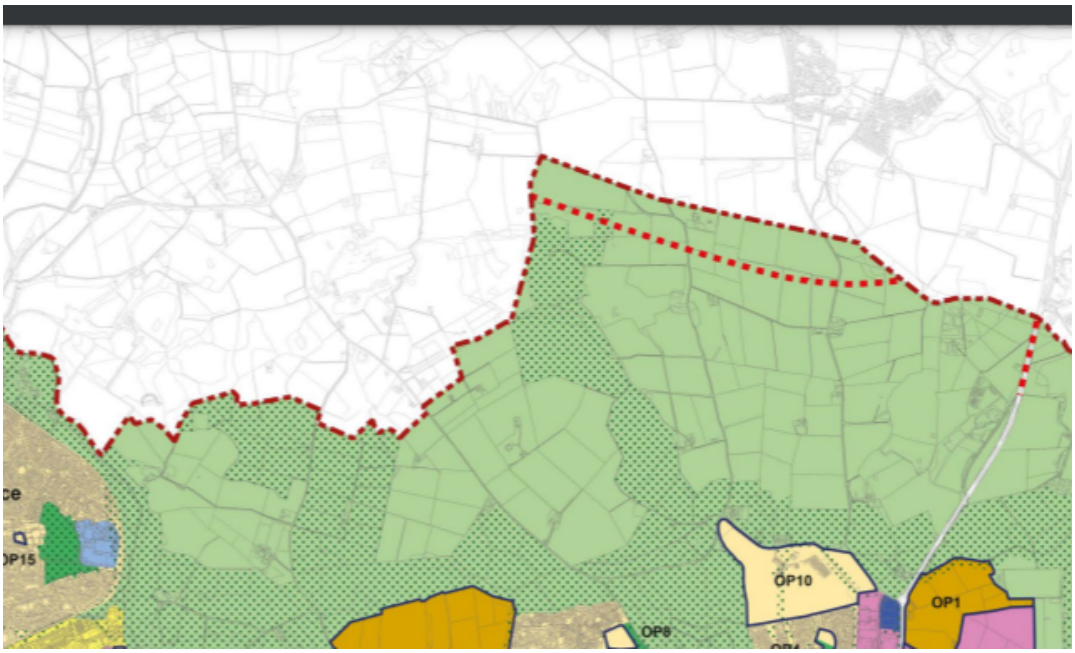
The proposed line will take somewhere between 20% - 32% car journeys off the road based on experience elsewhere in the UK.

Map 2; A 96 Haudagain Roundabout to Scotstoun Country Club including loop. 7.916/4.919m



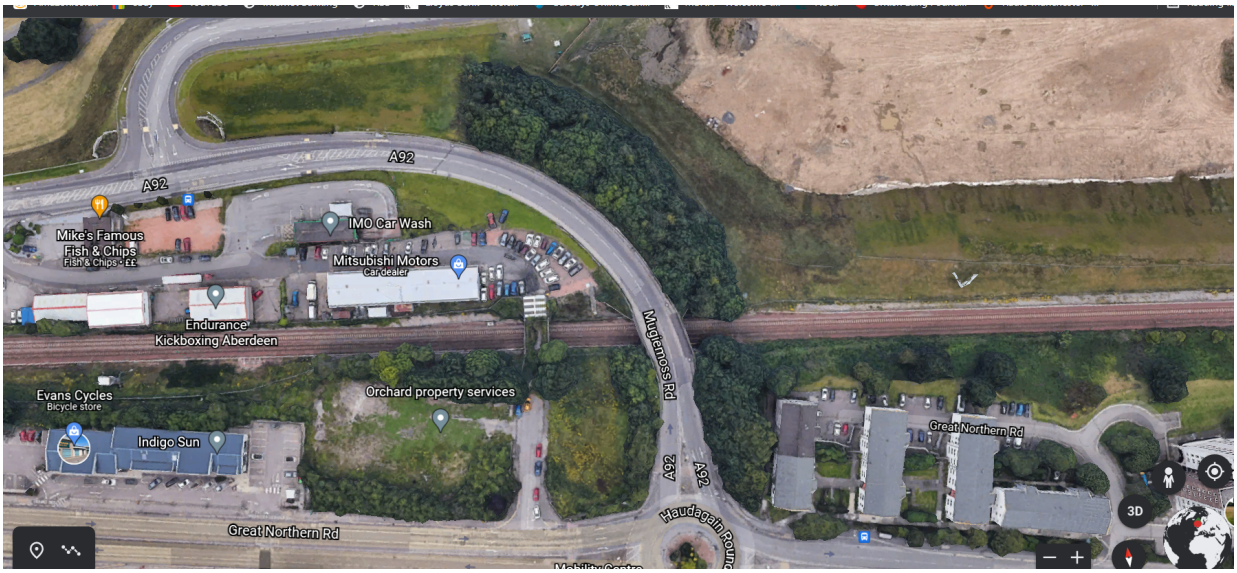
Limited Park + Ride just north of Gordons Barracks, Land north of Danestone to be developed (yellow on map below). The Tramroad will be able to syphon off a significant number of vehicles allowing a higher density of build

Map 3 Extract from LTP 2020



A P+R may be established by arrangement with Tesco and a possible CP for the scrap yard opposite

Map 4 An ideal interchange site between the A92 and the Northern Railway, a new low cost railway station with pedestrian access from the A92 tram route. A multi stored P+R should be built here



Starting at the roundabout at the Junction of the A92 and the A96 at the top of North Anderson Drive, if you continue north across the railway line, you go downhill from the overbridge and you pass a small access road off to the right. The area to the north of the A96 Great North Road and to the east of the A92, between the A96 and the River Don appears to be owned at the moment by Cala Homes and a bunch of new houses are being built there. The east end of the land is a sports park. There is a piece of land that is not built on and seems to be owned or used by BAM/Nuttall. It sits between the access road to the new housing estate and the railway line. It could be the site of a park and ride to take people on the train into the centre of the city if a station was opened there. The line is double track at this point and would need two platforms and an overbridge.

The frequency of trains on the Aberdeen to Inverness line is ~11 a day, but this could be increased by running a suburban service from Aberdeen main station, perhaps as far as Inverurie. There is a station at Dyce – the Aberdeen Airport – so the integrated transport issue could work quite well in this case.

The line is not electrified and is still diesel hauled which might be another reason to push for electrification, however there are no electrified railway lines in Scotland north of the central belt and the main lines south. Glasgow – Ayr which is well used is one of the very few exceptions. Even the "new" Borders Railway was not electrified and indeed does not even have run round loop at the Tweedbank end.

The topography at this point lends itself to a multi junction TramTrain operation so we would be able to multi route/mode serve Dyce Airport

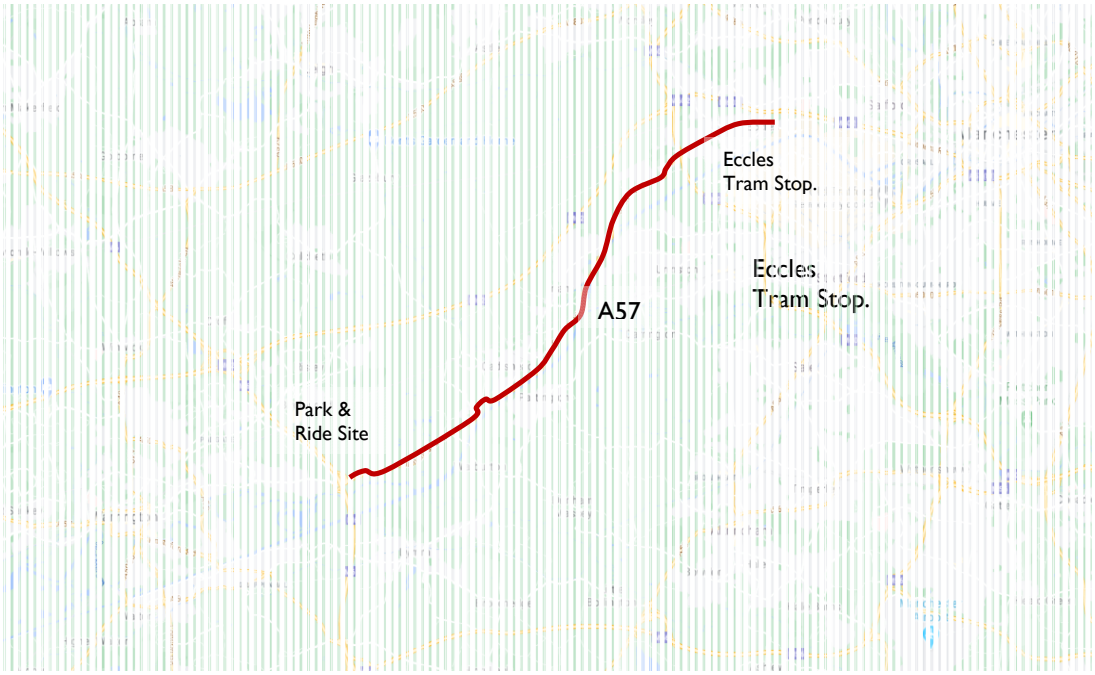
Case Study 2

UK example where Light Rail/Tram could be integrated into a former trunk road.

MANCHESTER – A57 MANCHESTER ROAD – WARRINGTON TO ECCLES

An example of an underused road is the A57, West of Manchester a mixture of dual carriageway, three lane and a bypass from Eccles, Irlam, Cadishead, Warrington, Halton and on to Central Liverpool.

*By using a P+R at Junction 21 M6 (and at Bells Stadium M60), a low-cost tramway going East into Manchester would use large parts of the upgraded but quiet sections through Cadishead, Irlam, Eccles Centre into Manchester vial the A57 track sharing with Manchester Metrolink Eccles to Langworthy Section and into St Peters Square



*There is provision for a P+R at Bell Stadium and connection with Metrolink Trafford Park to syphon off and modal switch from the M60 Motorway Ring road with tramway access to Metrolink or as a low-cost tramway as above.

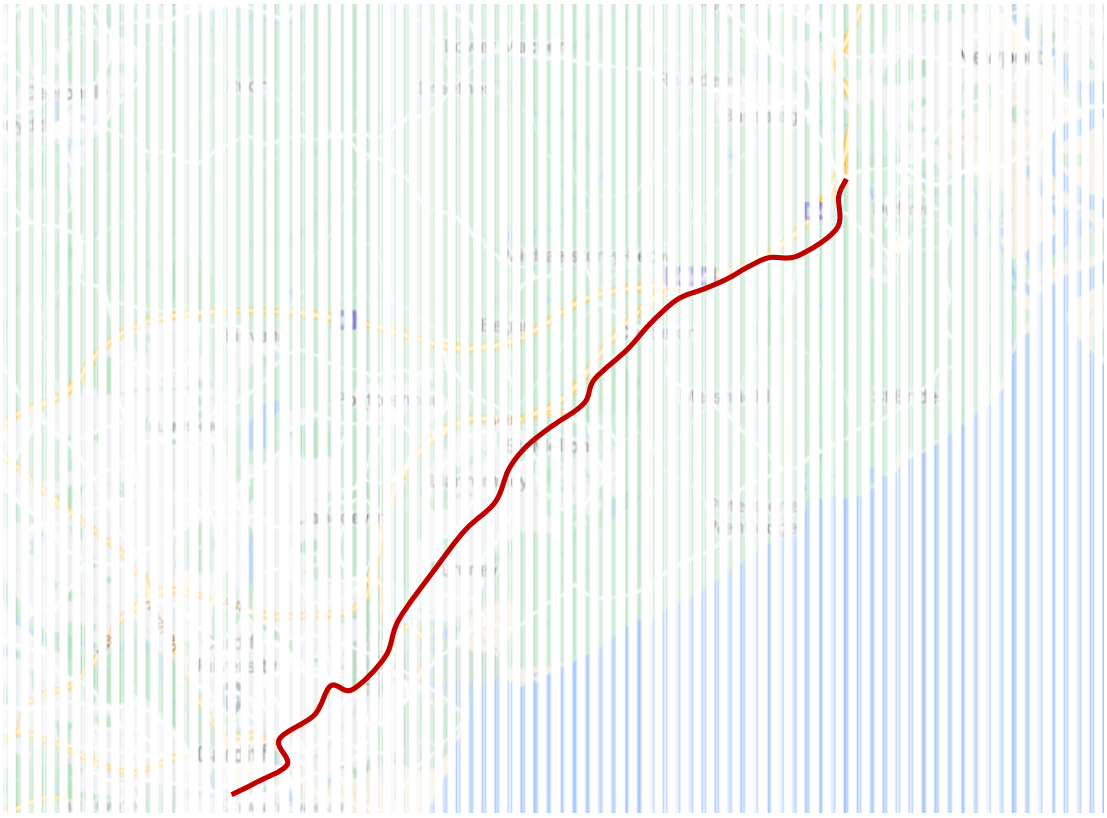
*The use of a P+R site near a motorway junction will ensure in the fulness of time, sufficient modal switch as a major source for WebTag. The capture and monetising of soft benefits are still an issue.

This is one of two of today's equivalent of former rail alignments being repurposed and maximising the economic impact of the SRN - access to intermodal transport, and providing the connectivity needed for businesses, communities, and households for a much lower cost and value to the Taxpayer.

3 Case Study 3

CARDIFF - A48 SOUTHERN DISTRIBUTOR ROAD

Another good example of what could be done is the A48 Southern Distributor Road running West towards Cardiff from Newport near Junction 28 M4 via the B4487, A4161, A4160. This road has been downgraded since the coming of the M4, but the wide road infrastructure remains in most parts giving significant local connectivity.



The M4 which has now been saturated at peak to the point of that an alternative Motorway style road was proposed but has been refused on environmental grounds and we would like to point out – it is cheaper to build a tramway than a new motorway]

This is a 21st Century version of the former railway alignment idea and should be used for a local low-cost frequent service tramway technology (already developed) to siphon off with a *P+R near Junction 28 to access Cardiff and other transport modes along line of route. road as it is currently, is lightly used, and can readily be repurposed. It has a variety of speed limits from 30 MPH to 60 MPH and will provide a quick green corridor but not as a high-speed alternative to that experienced by the car user currently on the M4.

4 Case Study 4

Leigh Guide Busway Upgrade to Public Transport Pathway October 2020

The Leigh-Salford-Manchester scheme (LSM), which opened in April 2016, has delivered a high-quality public transport service linking Leigh, Atherton, Tyldesley, Ellenbrook, Salford and Manchester via a guided busway and on-highway bus priority measures.

The Vantage service commenced operation in April 2016 and has been a great success with patronage levels far exceeding expectations.

The contract set a target patronage figure of 1.7m in year 4 (financial year 2019/20). The forecast figure is 3.1m, 82% higher than original expectations.

The most recent customer survey undertaken in early 2018 reports that 35% of all passengers had previously driven or travelled as a passenger in a car.

The development of Vantage so far has been achieved on the core.
In April 2017, the service was fully extended along a transformed Oxford Road in Manchester city centre, creating better links to key sites along one of Europe's busiest bus routes. The scheme is expected to deliver

high value for money, with an estimated BCR of up to 2.8 including wider economic benefits but details not available to the author.

Services run on 21km of segregated bus measures, of which 7.5km, between Leigh and Ellenbrook, is a kerb-guided busway, with the remainder on-highway, some of which has been identified as suitable for repurposing to a Public Transport Pathway

The scheme includes a guided section including seven pair of high-quality stops, 3 x Park and Ride, current total capacity for 450 cars, enhanced passenger waiting facilities at Leigh Bus station only,

Highway and bus priority improvements within Leigh, Atherton and Tyldesley town centres.

A new premium bus service between Leigh, Atherton, Tyldesley and Manchester city centre – 8 services per hour timetabled with additional services in the peak to accommodate demand (4 services per hour to/from Leigh and 4 services per hour to/from Atherton although this is subject to operational variation due to the current pandemic

Service Provision as at Feb 2020, pre-Pandemic.

It is projected that passenger use will increase in the order of 5 million in the next 5 years which will over burden the current infrastructure and will need significant rebuilding from the ground up.
The use of low-cost ultra-light vehicles will be the means of upgrading to a Public Transport Pathway at relatively low-cost restructuring and retention of guided concrete section.

Light Rail (UK) Group

Light Rail (UK) believe that Leigh, Atherton & Wigan lack of quality public transport leads to congestion, serious transport air pollution, and transport poverty which can best be tackled by provision of high-quality steel on steel street running public transport. It will also help futureproof connectivity for epidemics that have been advised to follow Corvid 19.

This is also a serious opportunity in the proposed rebalancing of the North - South Economy especially in the "Red Wall Constituencies" This can be provided by "Build Back Better" and TfN as part of the "Rail North" proposals must include light rail and tramways, each mode providing optimal service for varying traffic flows.

The essential requirement is full integration of modes, Public Transport Pathways (PTP), in terms of interchange and through ticketing, allowing seamless journeys. Trams and light rail should form an essential component of our public transport provision especially connections in the East with Manchester Metrolink and eventually West to Liverpool City Region

Trams are an efficient way of moving large numbers of people in towns and cities from 150,000 citizens upwards and can cope with 2,000-18,000 passengers per hour. They have a proven record in attracting people out of cars; the rate of modal transfer from car to tram at peak times is typically around 27%. This compares with estimates of between 4% and 6.5% for quality bus investment, the Leigh Guided Busway starting from a low base may be the exception to the rule.

Levels of traffic reduction from trams are typically around six times greater than with bus schemes.

Reductions of road traffic of up to 14% after introduction of tram schemes have been recorded.

A tramway inclusion in a Public Transport Pathway will improve Leigh and Wigan's images and assists urban regeneration. Shiny rails instill investor confidence.

All UK schemes have had positive effects on the image of the city in which they have been built, which has brought benefits in terms of attracting inward investment as well as business and tourist visitors, sometimes to the detriment of their non-tram neighbours.

As part of an integrated public transport system, tramways can attract motorists out of their cars and thus reduce the number of vehicles in the city centre, particularly in conjunction with park and ride provision. This not only reduces the number of vehicles moving on the street but also reduces the demand for city centre parking. Conversion of heavily trafficked bus corridors to tram also reduces the numbers of buses, replacing them with fewer trams providing the same passenger-carrying capacity.

5 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.

6 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 and will never be in compliance with WHO Air Quality Requirements.

CAZ charges will increase over the life of buses as the CAZ specifications tighten. Manchester is currently at £60.00 per vehicle.