Western Gateway Strategic Cycle Network

Western Gateway Subnational Transport Body

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Contents

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v2.0	Second issue	SM/CZ	LD/JL	01.12.22

Executive summary

This report sets out the case for a Western Gateway strategic cycle network linking key settlements and providing rural connections to enable longer distance cycling within the region. The need for this network was identified by the Western Gateway Strategic Transport Plan 2020-2025.

The Local Authorities within the Western Gateway have their own existing local plans and priorities for cycling networks. This report does not seek to supersede those plans and priorities but to identify and fill in the gaps between the local networks.

A Western Gateway Strategic Cycling Network (WGSCN) would bring a wide range of benefits, including: decarbonisation, health, economic, leisure, education, and tourism.

The report details how a WGSCN aligns well with national transport and environmental policy, as well as local policies and initiatives. The growth of electric mobility is another important factor discussed which is likely to rapidly increase the value of the WGSCN and other longer distance cycling networks like it.

This report plans and proposes a WGSCN. It sets out how the network has been planned, how it fills in gaps between existing Local Cycling Walking Infrastructure Plans, and how the development and delivery of the network could be prioritised.

High-level interventions are provided for several routes within the network which score well using the prioritisation criteria developed with the Local Authorities and Western Gateway. These interventions are indicative both in terms of route alignment and facilities proposed, further work would need to be undertaken before producing more detailed scheme proposals.

This report is the start of defining and delivering the WGSCN. It identifies the next steps for making the network a reality. As well as further work to refine the routes, the key issues for delivery success will be effective stakeholder engagement and securing funding through various sources.

The WGSCN is a long-term vision which requires a clear plan on how it can be achieved and why. This report provides the foundation for that vision and plan.

1 Introduction

1.1 Purpose of this report

This report aims to set out plans for a Western Gateway Strategic Cycle Network (WGSCN) linking key settlements, towns, villages, and transport hubs, and providing rural connections to enable longer distance cycling for leisure, tourism, work and education. This report supports the Western Gateway Strategic Transport Plan 2020-2025, which outlines a strategy for identifying gaps in strategic cycle routes in the region, to facilitate longer distance cycle journeys[1].

The WGSCN also seeks to facilitate links to existing and future rail stations, and accommodate longer distance cycle trips, in addition to realising routes which cross the boundaries of the constituent Local Authorities. The WGSCN network will use, but will not be limited to, the National Cycle Network (NCN), identifying gaps and ensuring cycle routes are brought up to a higher standard in accordance with Local Transport Note 1/20.

The intention of developing the network is to enable the Western Gateway STB to be poised to act quickly and strategically should funding become available and to influence future funding allocations and reviews.

Some Local Authorities are in the process of developing inter-urban, longer distance cycle networks. Whilst it is anticipated that there will be significant symmetry between these networks and the WGSCN, the WGSCN should be updated to reflect routes and networks developed by the Local Authorities as they will be subject to more detailed planning, analysis, local knowledge and consultation.

This report acknowledges every Local Authority (LA) within the Western Gateway has its own priorities and this report does not supersede the work of the individual LAs and their Local Cycling Walking Infrastructure Plans (LCWIP), which are the highest priority for growth and development of active travel in the region. LCWIPs tend to cover the most populated areas within an LA. However, LCWIP networks are focussed on relatively small areas, so the role of the WGSCN is to fill the gaps between the LCWIP networks to enable longer distance cycling between less populated, and more typically, rural settlements, as well as creating cross-boundary routes to develop greater interconnectivity between LA areas. The WGSCN should be regularly updated to incorporate routes developed by the Local Authorities where appropriate.

The report consists of the following sections:

- Section 1 - Introduction
- Section 2 - Policy context
- Section 3 - Evidence base
- Section 4 - Network planning methodology
- Section 5 - Route prioritisation process
- Section 6 - Principles underpinning the design recommendations
- Section 7 - Recommended interventions for each route
- Section 8 - Deliverabiliy and impact of recommendations
- Section 9 - Long distance challenge route
- Section 10 - Next steps

1.2 Study Area

Western Gateway is a Sub-National Transport Body (STB) formed of eight Local Authorities and one Combined Authority (West of England Combined Authority, WECA).

The Western Gateway has committed to driving innovation, economic growth, and industrial productivity and to transitioning to a decarbonised transport system. This will be achieved by strengthening travel connections to local, national and international markets. Together, the nine constituent Authorities comprise major urban centres and conurbations, market towns and rural areas, coastal and inland, as seen in Figure 1-1.

The Western Gateway STB region is surrounded by other transport bodies to the south west (the Peninsula Transport area) and to the north and east (Midlands Connect, England's Economic Heartland and Transport for the South East).

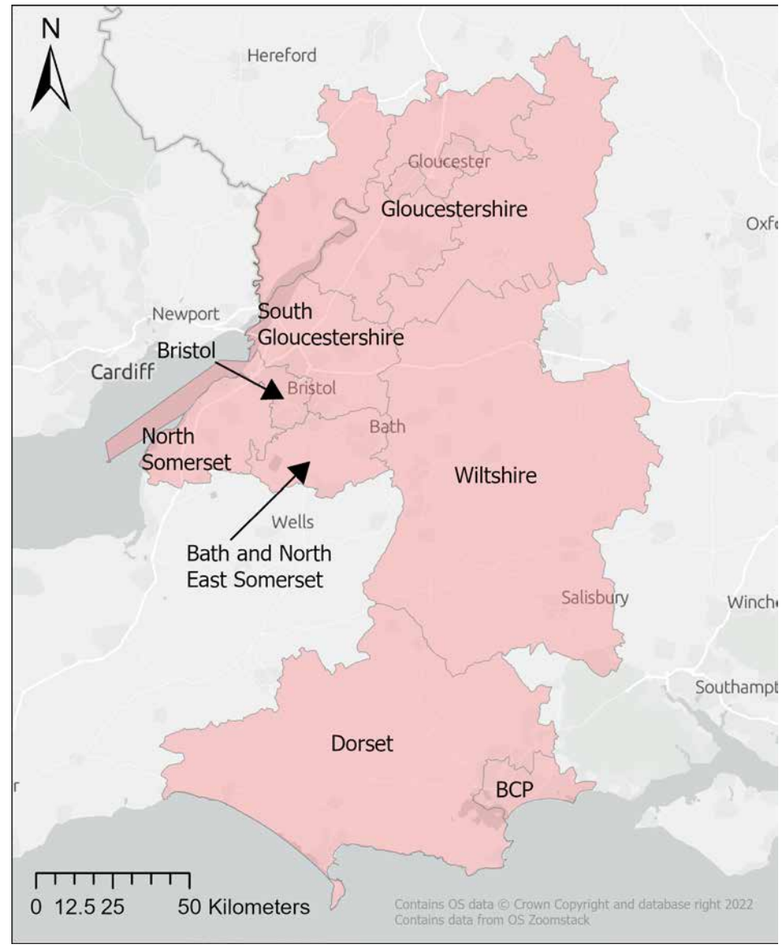


Figure 1-1 Local Authority members of the Western Gateway and their boundaries

The Western Gateway supports over 1.6 million jobs and the area includes some of the country's fastest growing conurbations, with population growth to 2041 being higher than the England average for the same year. The rate of expected travel growth is between 0.3%-1.2% annually, and if not sustainably managed, could negatively impact key strategic travel corridors[2].

1 Western-Gateway-Strategic-Transport-Plan-2020-2025

2 Western Gateway Strategic Transport Plan 2020-2025 (westerngatewaystb.org.uk)

2 Policy context

2.1 Policy Context

2.1.1. National policy

There are now a number of key national policies which set out the UK government's support for investment in Active Travel. The majority are transport policies but Active Travel also forms part of the government's Net Zero agenda. Collectively, they show that Active Travel is currently at the forefront of some of the government's major priorities.

Figure 2-1 Key National Level Policy supporting cycling uptake

- Gear Change

In Gear Change (2020), the UK Government's white paper set out a bold vision for walking and cycling in England, with a six-fold increase in funding and ambitious targets to match. The Department for Transport (DfT) expects that local authorities will make significant changes to their road layouts to meet these targets, providing more space to people walking and cycling and locking in the many benefits of active travel[1]. The government's major target is that half of all journeys in towns and cities will be cycled or walked by 2030. A key commitment, of particular relevance to the WGSCN, made in Gear Change is that funding will be made available to improve the National Cycle Network which serves rural areas all over the country. Funding will be made available where the Network can be extended to enable everyday journeys to be cycled. The cycling budget announced in Gear Change will be held by a new commissioning body, Active Travel England, which will review all funding applications.

1 Gear change: a bold vision for cycling and walking (publishing.service.gov.uk)

- Cycling and Walking Investment Strategy

The government published the first statutory Cycling and Walking Investment Strategy (CWIS) to cover the period 2016-2021. CWIS 2 was published in 2022, after being delayed by the COVID pandemic. CWIS 2 sets out the objectives and financial resources for the period April 2021 – March 2025. The strategy reiterated the target set out in Gear Change that half of all journeys in cities and towns will be walked or cycled by 2030. CWIS 2 stated that government funding totalling £3.784 billion would be made available between 2021-2025 for investment in Active Travel.

- Transport Decarbonisation Plan

Decarbonising transport: A Better, Greener Britain (2021) places the ambitions set out in Gear Change into the wider context of the government's transport decarbonisation agenda. The plan covers a wide variety of changes to transport which will need to happen in order to meet the government's core target of reaching Net Zero by 2050. Strategic Priority 1 is accelerating modal shift to public and active transport, making public and active transport the natural first choice for daily activities. The benefits of electric cycles are referenced within the plan as a new alternative for journeys which are currently too far to cycle, these are exactly the sort of journeys that the WGSCN can enable.

- Local Transport Note 1/20 (LTN 1/20)

Alongside Gear Change, the government published new cycle infrastructure design guidance. The guidance raises the standard of cycle infrastructure design, providing clarity on what type of provision is suitable in different contexts and sets out five core design principles all cycle networks and routes should be: Coherent, Direct, Safe, Comfortable and Attractive. One of the conditions of receiving future funding for cycle infrastructure will be that it is designed in accordance with Local Transport Note (LTN) 1/20.

- Active Travel England

One further announcement made in Gear Change was the establishment of Active Travel England, a new inspectorate whose role is to ensure that public investment delivers high-quality active travel infrastructure in accordance with LTN 1/20 and other UK government design guidance and standards. Active Travel England will assess and award funding from Local Authorities and be a statutory consultee in the planning system.

- Net Zero Strategy

Looking even wider than transport, in October 2021, the UK Government published its Net Zero Strategy: Build Back Greener. This document sets out how Net Zero by 2050 will be achieved across every sector of the UK. It reiterates the targets and policies within the Transport Decarbonisation Plan, that £2bn will be invested into walking and cycling to drive mode shift to active travel.

2.1.2. Local policies

- Western Gateway Strategic Transport Plan

The Western Gateway Strategic Transport Plan[2] (2020-2025) identifies short-term strategic transport priorities and provides the foundations for the development of long-term plans in the context of key travel corridors within the STB.

"The aim of the Strategic Transport Plan (2020- 25) is to deliver sustainable growth by ensuring the Western Gateway area is sustainably connected and provides high quality and value for money travel opportunities for all businesses, residents and visitors."

To help achieve this, five overarching challenges are considered:

1. The legacy of COVID-19 which is likely to have a significant impact on traditional journey patterns;
2. The need to decarbonise the transport network with partner authorities declaring a climate emergency;

2 Strategic Transport Plan - Western gateway (westerngatewaystb.org.uk)

3. The importance of improving connectivity to support the delivery of sustainable growth;
4. Tackling rural accessibility gaps by working with partners to develop sustainable solutions to maintaining rural transport networks; and
5. Reducing the regions productivity gap by removing travel constraints.

The Strategic Transport Plan identifies the need for greater provision of modal choice, cycling being one of these choices, as it benefits the physical and mental health of residents, improves air quality and eases congestion across the region. The Plan states that it is essential to provide safe and attractive cycle routes to cater for the increasing demand for leisure trips and work. Furthermore, access to jobs – particularly for young, lower paid groups, is another key reason for further enabling a shift to cycling.

Western Gateway STB will work with stakeholders to facilitate longer distance routes e.g., inter urban cycle routes, to ensure that new communities have access to a full range of travel choices. Local stakeholders believe there is a need to manage existing road space more effectively and support future growth through the provision of better cycling facilities. There is also a recognition by stakeholders of the importance of transport hubs and the role of interchanges in urban areas, especially improving the flow between first and last mile cycling links.

Figure 2-2 Western Gateway Stragegic Transport Plan

- Local Walking Cycling Infrastructure Plans

LCWIPs were set out in the UK Government's Cycling and Walking Investment Strategy (2017) and are a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and walking networks, ideally over a 10 year period, and support the acquisition of UK government funding.

LCWIPs are not mandatory but all the Local Authorities within the Western Gateway have developed at least some form of LCWIP for part of their County/area. Some are complete, some are still subject to public consultation, some are awaiting the outcome of public consultation, and some are still in-development. LCWIPs tend to focus on the largest settlements where uptake of walking and cycling is likely to be greatest.

Figure 2-3 examples of West of England and Bournemouth, Christchurch and Poole Local Cycling and Walking Infrastructure Plans

3 Evidence base

3.1 Role the WGSCN could have in achieving wider benefits

Delivering the WGSCN will bring a broad range of benefits, these are outlined in this section of the report.

3.1.1 Decarbonisation and environmental benefits

Investing in the WGSCN will enable more cycling journeys. Some cycle journeys, often leisure trips, may not have otherwise been made. However, leisure trips make up about a third of total journeys according to the latest National Travel Survey (2021) data, so many of these cycle journeys will mean a reduction in carbon emissions, and harmful pollutants. To understand how much decarbonisation the WGSCN could help deliver, Figure 3-1 details how 65% of the Western Gateway's transport emissions are currently produced by cars.

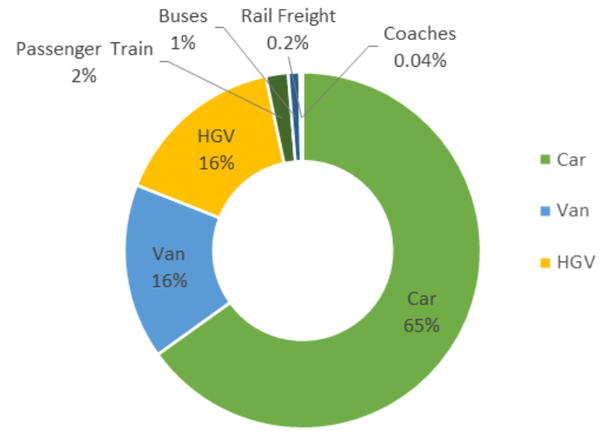


Figure 3-1 Western Gateway Transport Emissions, 2019[1]

1 Decarbonising Transport – A Better, Greener Britain (publishing.service.gov.uk)

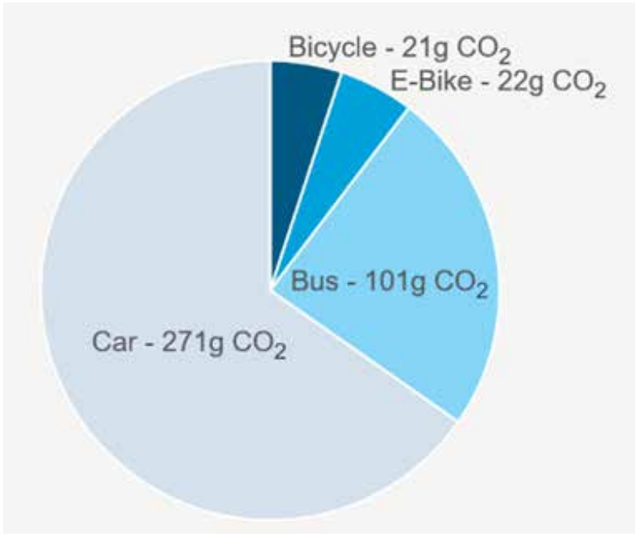


Figure 3-2 Carbon emissions for vehicles (grams of CO2/km travelled)

Figure 3-2 shows that cycles, whether standard or electric, produce about 90% fewer emissions than cars over their lifespan so the potential decarbonisation benefits of mode shift from car to bike are substantial.

Under 1 mile	1-2 miles	2-5 miles	5-10 miles	10-25 miles	Over 35 miles
24%	18%	25%	15%	12%	5%

Table 3-1 Journeys in England, by length as a percentage of all journeys, 2017*

* Please note: total is 99% due to rounding

In total, 67% of all trips in England are 5 miles or less, a distance that can be cycled in around 30 minutes or less (much less if using an electric cycle). The WGSCN would enable cycle journeys of even greater distances, up to 10 miles or more which would mean cycling could become an option for up to 82% of trips, see Table 3-1. Delivery of the WGSCN could therefore help maximise the carbon emissions reductions which could be achieved through mode shift to cycling across the Western Gateway.

Western Gateway's carbon modelling suggests that vehicle journeys of up to 5 miles account for 21% of transport carbon emissions within the Western Gateway boundary, but the remaining 79% comes from journeys of 5 miles or more (18% from 5-10 mile journeys and 61% from >10 mile journeys). This highlights the significant decarbonisation benefits of a strategic cycling network which enables longer distance cycling journeys.

As well as decarbonisation, the WGSCN offers a number of other potential environmental benefits. The creation of new cycle routes can create opportunities to create more green infrastructure, eg. planting trees or other vegetation along the route, which as well as removing CO2 and other pollutants from the air, can improve biodiversity, and manage flood risk.

3.1.2 Health benefits

- Physical health

There is good evidence that cycling, like other forms of physical exercise, has significant positive impacts on our health. Over 25% of adults spend less than 30 minutes a week physically active, and 20 minutes of exercise a day reduces the risk of developing various severe health problems.

Physical activity, like cycling, can help to prevent and manage over 20 chronic conditions and diseases, including some cancers, heart disease, type 2 diabetes and depression. Physical inactivity is associated with 1 in 6 UK deaths.

Figure 3-3 Benefits of 20 minutes activity a day[1]

1 Healthy Streets for London (tfl.gov.uk)

Physical inactivity levels within the Western Gateway can be seen in Figure 3-6. Whilst the Western Gateway has a relatively active population, compared to the rest of the UK, approximately 20% of the adult population is still inactive so increasing cycling would provide major benefits for the local population.

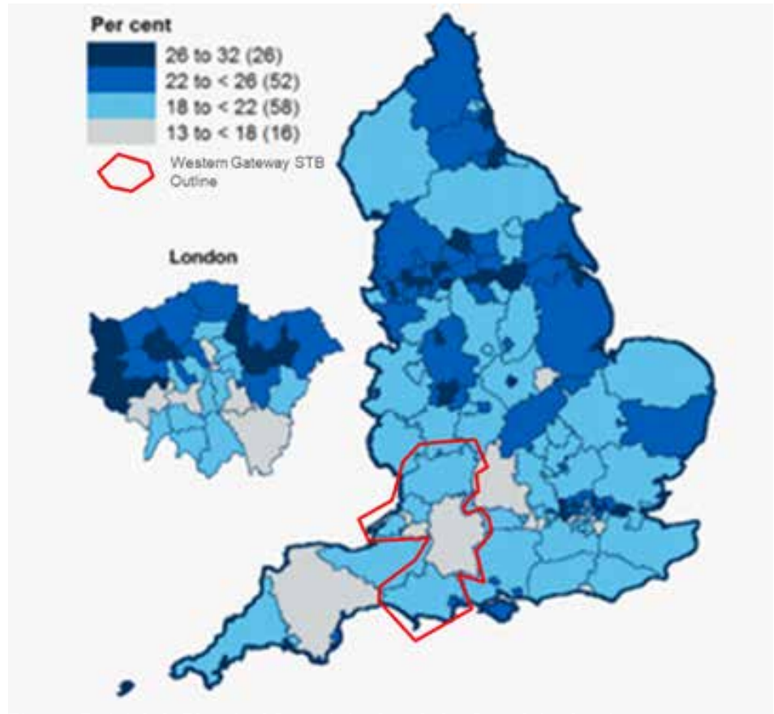


Figure 3-4 Adult Physical Inactivity levels by Local Authority

- Mental health

1 in 4 people experience a mental health problem of some kind each year in England. 1 in 6 people experience a common health problem (eg. anxiety or depression) each week in England. The number of people with common mental health problems increased by 20% between 1993 to 2014, among both men and women.

As with physical health, physical activity is beneficial for mental health. In January 2022, the Department for Transport announced a number of Active Travel Social Prescribing Pilots including Bath & North East Somerset, Bristol and North Somerset within the Western Gateway. People with mental health problems can find exercising difficult so integrating

being active into daily life with activities like cycling can be an ideal way of using activity to combat poor mental health. Spending time in nature or green spaces can also benefit mental well-being and cycling is a good way to access these environments. The WGSCN covers a range of rural and semi-rural environments which will bring users of the network into contact with the natural environment.

- Economic benefits

Investment in active travel typically delivers good economic benefits. It can support the local economy, reduce work absence and boost productivity, reduce congestion, and provide wider economic benefits related to health and the environment. Cycling also contributes £5.4bn to the economy per year, which is 3x more than the UK steel industry, and supports 64,000 jobs.

In terms of the local economy, there is evidence to show that improving cycling infrastructure can increase expenditure in shops by up to 30%. Cycle parking can deliver five times the retail spend per square metre than the same area of car parking. Over a month, people who cycle to the high street spend 40% more than people who drive because they make more trips. On average, when travelling to the high street, car users visit the high street 8 times over a month, cyclists 12 visits and pedestrians 16 visits[1].

Physically active employees take 27% fewer days off sick than their colleagues. Employees who specifically cycle regularly take 1.3 fewer days off sick per year which is worth £128m annually to the economy. 73% of employees who cycle feel that it makes them more productive at work.

Physical activity increases could result in the nation making major cost savings, of which 37% arise from the health sector[2]. Physical inactivity costs the UK economy approximately £7.4bn a year when the impact on the NHS, social care, sickness absence from work and various other factors are combined. Evidence from Public Health England suggests that a modal switch from motor vehicles to active travel could save the NHS £17bn over a 20-year period, with the largest cost savings from a reduced number of type 2 diabetes cases.

1 Walking & cycling: the economic benefits, TfL

2 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/523460/Working_Together_to_Promote_Active_Travel_A_briefing_for_local_authorities.pdf

The economic cost of the impacts of air pollution in the UK is estimated at £9-19 billion every year. This is comparable to the economic cost of obesity (over £10 billion).

3.1.4. New leisure, education and work opportunities

The WGSCN would expand on emerging LCWIP cycling networks within Western Gateway and the National Cycle Network, filling in the gaps and creating longer continuous routes. As a result, new links between communities would be created enabling a wide range of journeys for multiple purposes such as leisure, education and work. A map of the proposed WGSCN can be found on page 24. Table 3-2 shows the potential of the WGSCN to facilitate a wide range of trips.

Population Group / Destinations	No. within 400m of proposed WGSCN
Resident population	593,877
Workplace population	285,477
School age children population	88,068
Non-residential destinations	5,382
Tourist destinations	300

Table 3-2 Data demonstrating trip potential in the Western Gateway area

Over half a million people live within 400m (approximately a 2 minute cycle trip) of the WGSCN, which is over 15% of the total population of Western Gateway. These people could potentially use the network for shopping trips, personal business trips or trips to visit friends which account for 52% of all trips made in England. There are over 5,000 potential non-residential destinations within 400m of the WGSCN which suggests the WGSCN could be utilised for such a broad range of trip types.

Half of the people living within 400m of the WGSCN are of working age so could potentially use the network for commuting or business related trips which account for 18% of all trips made in England.

Nearly 100,000 children could potentially use the WGSCN to travel to and from school. Educational trips account for 12% of all trips made in England.

Leisure trips account for 17% of all trips made in England and there are 300 tourist destinations within 400m of the WGSCN which suggest the network could be used for leisure purposes as well as utility trips. This is only considering local leisure trips, i.e. trips made by people living within Western Gateway and not potential tourism related trips which will be covered in section 3.2.

- Case Study: Linking Communities grant, Sustrans, 2012-13

£18 million (£7.5m from DfT and £10.5m match funding) was invested into the Linking Communities Programme 2012-13 across the UK. The programme's intent was to both create and improve traffic calmed and traffic-free walking and cycling routes, to enable people in 35 communities to access areas of economic activity.

One of the four intended outcomes was to: "Connect residential areas to local facilities, connect people to places of work, link people to transport hubs such as railway or bus stations and enable independent and active travel to schools, further education (FE) and higher education (HE) institutions". The Linking Communities Programme produced the following benefits:

• Commuting by foot and bike increased by 353% from an estimated 17,039 annual trips to 77,174 trips

• 30% of survey respondents accessed retail facilities, 22% health services and 28% transport hubs

• A 151% increase in children using the routes to get to school, from 19,222 estimated annual trips to 48,206

3.1.5. What this means for the WGSCN

The WGSCN could have a wide range of positive impacts. The network could play a role in decarbonising transport, by replacing polluting vehicle journeys with cycled ones. It could improve local air quality and improve biodiversity. Increased cycling is linked to substantial benefits for the economy, and significant health benefits as well. Finally, the WGSCN could link local communities and services, creating new opportunities from a leisure, educational, and employment perspective.

3.2 Contribution longer distance cycling can make to supporting the tourism industry

The UK's tourism industry is estimated to be worth over £257 billion and support 3.8 million jobs by 2025, contributing almost 10% of the UK's GDP and 10% of UK employment[1].

As set out in 3.1.4, the WGSCN would enable the creation of more connections between 300 tourism destinations in the Western Gateway. As well as cycling trips for general tourism purposes, the network would also potentially attract tourists on cycling specific holidays. As shown in Figure 3-5, cycling tourism alone contributes hundreds of millions of pounds to the UK economy each year, it also supports over 15,000 jobs.

£443m	£520m	£650m
• There are 1.23m overnight cycle trips per year in the UK, contributing around £443m	•Total tourism spend from cyclists and mountain bikers in the UK is £520m	• Leisure and tourism cycling on the National Cycle Network contributes £650m a year to the economy

Figure 3-5 Cycling tourism contribution to the UK economy

- Case study: Peak District National Park cycling network

The Peak District National Park had over 100km of segregated cycle paths. However, many of these trails were not linked together and was a discouraging factor for many visitors to use the cycle paths. In 2013, the Peak District National Park was awarded funding to increase the network of routes, create more connectivity and support cycle friendly infrastructure, as well as to develop sustainable transport packages. The popularity of the trails increased and generated additional economic benefits of at least £1.68 million for the local area[2].

- Case study: Long distance cycling routes, Devon

In 2015, Devon County Council (DCC) commissioned an economic assessment of three landmark walking and cycling routes within Devon's rural cycling network: Drake's Trail, Exe Estuary Trail and the Tarka Trail (each route circled in red in Figure 3-7).

Following approximately £12m of long-term investment in their network, DCC was facing a more constrained funding situation and wanted to understand the value of further investment in the local network.

The report estimated that 270,000 leisure cycling trips were made across the three routes each year. Tourism expenditure associated with the three routes was estimated to contribute £13.4m per year to the local economy.

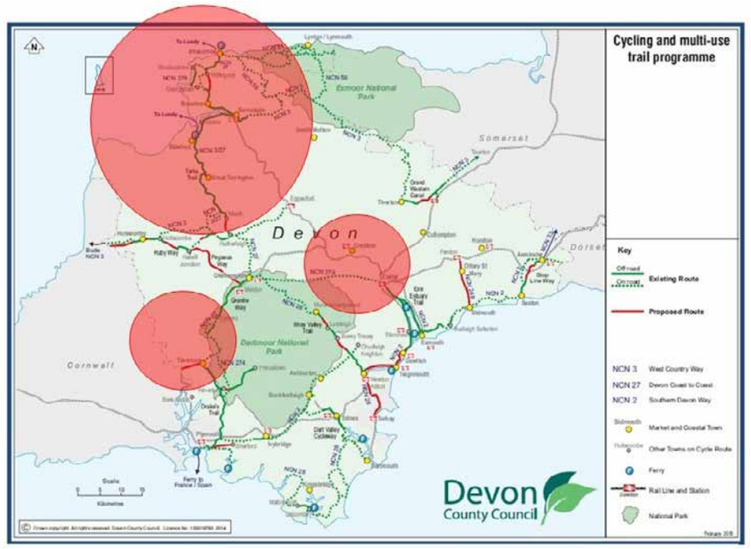


Figure 3-6 Devon rural cycling network map

3.2.1. What this means for the WGSCN

Tourism is a major contributor to the UK economy both financially and in terms of supporting jobs. The WGSCN could potentially enable a wide range of tourism related trips, supporting and growing the tourism sector across Western Gateway.

3.3. Role the network can play in supporting a return to rail use post Covid-19 recovery

The current rail network within the Western Gateway provides good connectivity within the region and outside of it to most of the UK.

There are multiple east-west routes, providing good connectivity to London and Cardiff and four north-south routes, providing connectivity cross-country[3].

Figure 3-7 Western Gateway & surrounding rail network

1 Britain's visitor economy facts | VisitBritain

2 https://www.derbyshire.gov.uk/site-elements/documents/pdf/transport-roads/transport-plans/transport-funding-bids/pedal-peaks-phase-2/pedal-peak-ii-final-project-report-2013-2016.pdf

3 Western-Gateway-Rail-Strategy-Final-Technical-Report-v3.00-Signed.pdf (westerngatewaystb.org.uk)

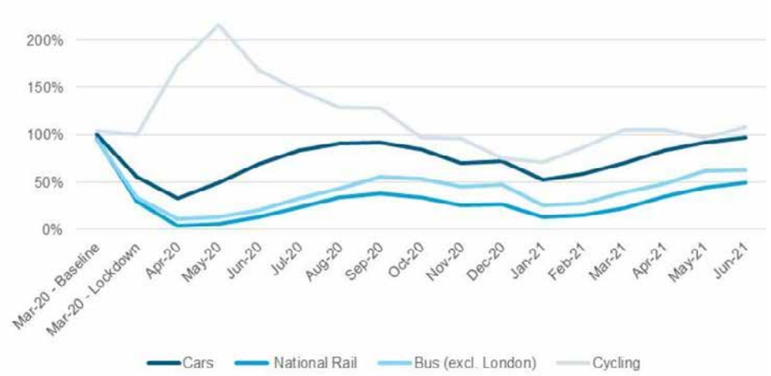


Figure 3-8 Use of selected transport modes during the Covid-19 Pandemic[1]

During the Covid-19 pandemic between March 2020 to June 2021 there was a dramatic drop in rail use.

This pattern was due to a combination of travel being limited to essential travel only, employees working from home, and a fear of catching the virus. Between June and September 2021, rail usage did increase but it was still only 54% of pre-pandemic levels and has not yet returned to pre-pandemic levels. While average demand for rail has fallen, patterns of increased popularity are emerging: Network Rail's Passenger Footfall Monitoring statistics have identified a peak in demand between Thursday and Saturday, with Saturday being the strongest day and recovering to as much as 60-70% of pre-pandemic levels some weeks.

- ## Gear Change

In Gear Change (2020), one of the Department for Transport's commitments was to 'make sure the railways work better with cyclists'.

Examples of how this might be achieved were provided, such as, investing in safe cycle routes to stations, particularly in commuter towns, and increasing cycle storage at stations. This is in line with the successful model seen in The Netherlands where there is excellent integration of the cycling and rail modes but cycles are not typically taken on trains. Despite this, 40% of rail passengers cycle to the station in the Netherlands.

However, Gear Change also referenced action to support people who do want to take their cycles on trains. Despite cycling's increasing popularity, space on trains for cycles has not matched this growth so the UK government also aims to reverse this trend by increasing space on existing trains where possible and requiring future rolling stock to include more cycle spaces. Lastly, the government said it will make it easier to reserve bike spaces on busy trains, and without reservations for emptier trains.

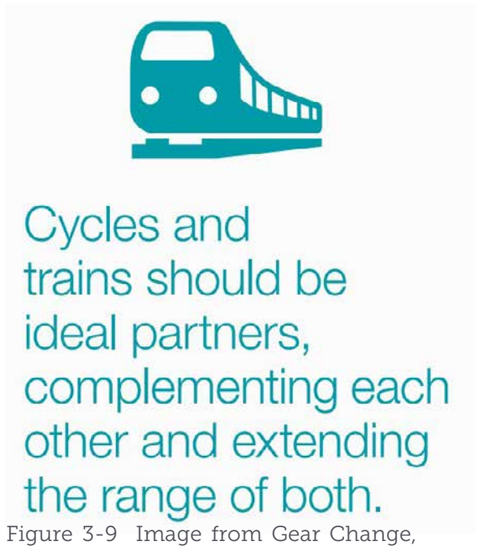


Figure 3-9 Image from Gear Change, DfT, 2020

- ## Case Study: Access to Stations, Various Location, UK

In 2015, 8 local authorities with 12 stations between them, were involved in the 'Access to Stations' Programme[2]. A variety of interventions were introduced at these stations: new cycle paths and lanes, resurfaced routes, cycle parking, lighting upgrades, pop up hubs, local school and cycling events. As a result of these measures, cycling to the stations increased. Specifically, the interventions led to:

• A reduction of 2.4 million car trips over the course of the project

• Change in sustainable transport use for all journeys, with an estimated increase of 1.7 million more cycling trips across the duration of the project

• Enhanced accessibility to workplaces and services, encouraging access by cycling walking or public transport (32% of respondents felt that accessing the station on a bicycle was safe and 31% felt that accessing the station was easy by bike)

- ## Case Study: ScotRail, Scotland

ScotRail has been proactive in encouraging bicycles on their trains. Together with Sustrans, they developed standardised train livery cycle logos across all train types to create a recognisable access point for bikes. They have also supported improving the quality and capacity of bike carriages on selected trains across the ScotRail fleet. To further aid in encouraging travellers to bring bikes on trains, a series of informative videos have been developed to show how to use the on-train cycle storage on all types of ScotRail trains. The videos also provide information on planning a journey with a bike[3]. Their website includes information about what types of bikes can be accommodated on which types of ScotRail trains, eg. electric cycles are permitted on all ScotRail services and tandem bikes and cargo bikes are permitted on a limited number of trains.

- ## Case Study: OV-fiets, The Netherlands

One additional measure not referenced in Gear Change but which could be beneficial for integrating the WGSCN with the local rail network is public bike share. In the Netherlands, there is a national cycle share scheme called OV-fiets which means 'public transport bicycle'. The cycles are located to interconnect with public transport and allow people to make seamless journeys by cycle without having to take their cycle on a train which creates capacity challenges. The scheme has been extremely successful, starting in 2004 with 70 locations, 800 bicycles, 11,000 members, and 100,000 hires. By 2019 it has expanded to 300 locations, 14,500 bicycles, 500,000 members, and 5.2 million hires.

3.3.1. What this means for the WGSCN

Cycling and rail use can be complimentary, providing people with high quality, flexible sustainable transport choices covering a range of distances. However, to create the right conditions for people to make multi-modal journeys by cycling and rail, investment will be required in not only the WGSCN which could provide routes connecting stations but also additional infrastructure. Cycle parking/storage at stations

1 Visitor Economy and Transport in the North of England | Final report - Transport for the North

2 Access to Stations, DfT

3 Integrating walking and cycling with public transport - Sustrans.org.uk

is vital and this should ideally be secure so that it is suitable for long stay cycle parking. The capacity to store and book space for cycles on trains could be increased. Lastly, a public bike share scheme could be considered which is integrated with both the WGSCN and the local rail network (as well as local mobility hubs – see section 3.4).

3.4. Role of mobility hubs and Future Transport Zones

A mobility hub is a space where public, shared and active travel modes are co-located, public realm improvements are also a key feature. More specific features include:

- Mobility components, such as bus, rail, demand responsive transport
- Shared mobility components, such as shared bikes, e-scooters, cargo bike share, car share
- Supporting mobility infrastructure, such as cycle parking, EV charging, bike repair facilities, wayfinding, real time transport information
- Non-mobility components, such as parcel lockers or drop off points, café, WiFi and device charging, community facilities, co-working or hot desking space
- Improved public realm, including safer crossings, inclusive accessibility, waiting areas, kiosks, and play areas
- Forming part of a network of strategically located hubs

3.4.1. Mobility Hubs

Mobility hubs are relatively recent to the UK - the first two have opened in London and Exeter - but are much more common in other European countries. Mobility hubs also exist in Belgium, Austria, Germany and Norway.

Figure 3-10 shows the locations of projects across England, which are currently at various stages of development.

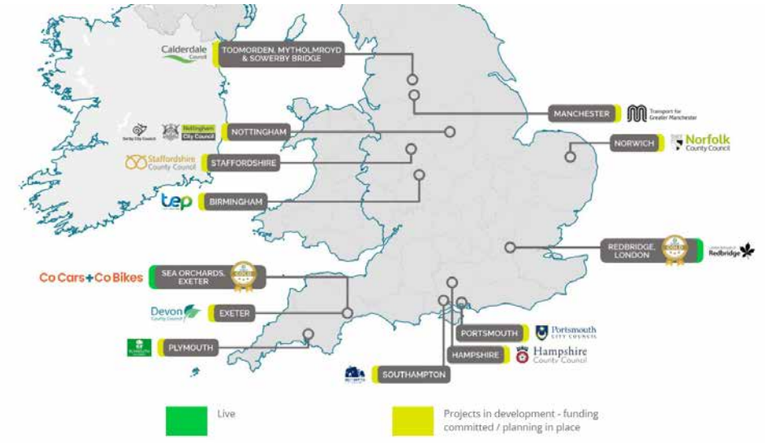


Figure 3-10 Current mobility hubs at various pilot stages across England[1]

There are already some pilot mobility hubs within the Western Gateway, in Salisbury, Bath and Bristol, while Gloucestershire are developing an interchange strategy.

WECA's Mobility Stations will focus on first mile/last mile connectivity with micro-mobility and Dynamic Demand Responsive Transport (DDRT), see section 3.42 for more detail.

South Western Railways has several mobility hub sites planned, one of which is at Salisbury station: a cycle hub, e-bikes, a car club vehicle, improved bus interchanges, as well as walking and cycling routes.

3.4.2. Future Transport Zones

In 2020, the Department for Transport announced £90m of funding for the creation of three Future Transport Zones (FTZs) where transport innovations will be trialled. One of the three successful bidders was WECA, which is part of Western Gateway.

- WECA Future Transport Zone programme

WECA will invest £28 million into the FTZ programme for the West of England and will trial innovative mobility solutions to improve movement across the region, up to March 2024. Their FTZ will incorporate the following proposed elements:

- Data Hub - transport data stored, modelled and then able to be visualised for future schemes and to respond to incidents for resilience. This data will inform the Mobility As A Service (MaaS) Platform
- MaaS Platform – A one-stop-shop app where citizens can plan their journeys, receive updates on real time incidents with the ability to re-plan journeys and purchase tickets
- Mobility hubs – these will vary in size but provide hub points to connect people to the existing public transport networks. In areas of poor connectivity, neighbourhood mobility stations could include pick up points for DDRT
- DDRT – potentially a minibus that loops around neighbourhoods to pick up passengers and drops them at larger mobility hubs where there are a wider range of transport options, which can all be planned and paid for using the MaaS platform
- Urban freight solutions - electric cargo bikes are to be trialled by the FTZ project in places like Bristol and Bath city centres, which are clean air zones. This could be enabled through freight consolidation centres, micro consolidation centres, first/last mile by e-cargo bike (hire or otherwise) or smaller electric vans

Several of the proposed FTZ's appear to be well located to integrate with the WGSCN (see Figure 3-11), e.g. Aztec West to the north of Bristol which lies at the beginning of the proposed route, Southmead Hospital and Portway Park & Ride.

Close integration between the WGSCN and proposed FTZs could create a symbiotic relationship, where the FTZs and WGSCN benefit each other, providing and enabling users to travel and to travel further if desired. The charge points provided could encourage users to take advantage of the incredible span of the WGSCN, enabling users with electric cycles or scooters to travel further.

1 CoMoUK: built and planned hubs November 2022

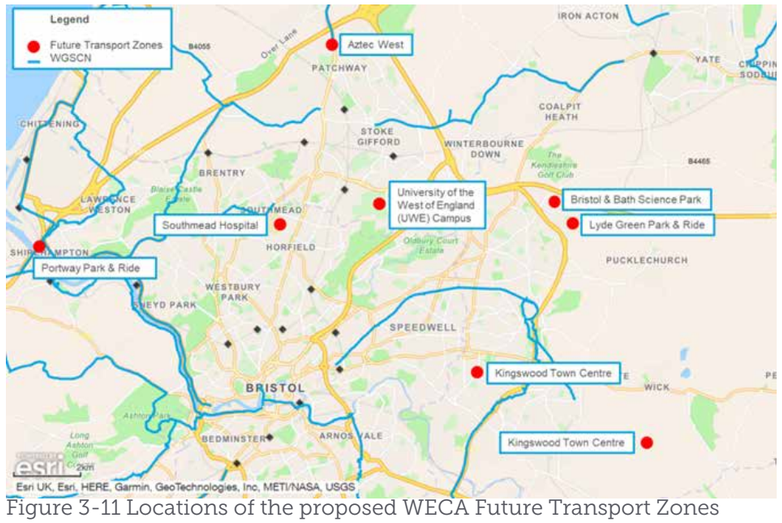


Figure 3-11 Locations of the proposed WECA Future Transport Zones

3.4.3. What this means for the WGSCN

Mobility hubs and FTZs provide a location for users of regular and electric cycles to rest, change transport mode and recharge (if required). Integrating the WGSCN with mobility hubs and FTZs would therefore enable longer or multi-modal journeys to be made using the WGSCN.

3.5. Role of greater use of electric cycles, cargo bikes and scooters

The future of electric cycles, electric cargo bikes and electric scooters could have a significant impact on the usage of the WGSCN. These vehicles open up cycling and scooting to a wider audience, for more journey types, and longer distances. This section will look at their potential impact on the WGSCN but also consider what other local infrastructure would be required to support electric micro-mobility.

3.5.1. Electric cycles and electric scooters

- Electric cycles

Electric cycles and electric scooters are rapidly growing in popularity. Over the Covid-19 pandemic, electric cycle sales in the UK rose by 67%, an estimated 160,000 were sold which accounted for 12% of the market value[1]. According to a study, 55% of British people were considering purchasing an electric cycle following the first COVID lockdown[2].

Figure 3-1 shows the last few years have already seen an increase in electric cycle sales across Europe, but this growth is predicted to increase by a further 50% over the next 10 years, according to the European Cyclists' Federation[3].

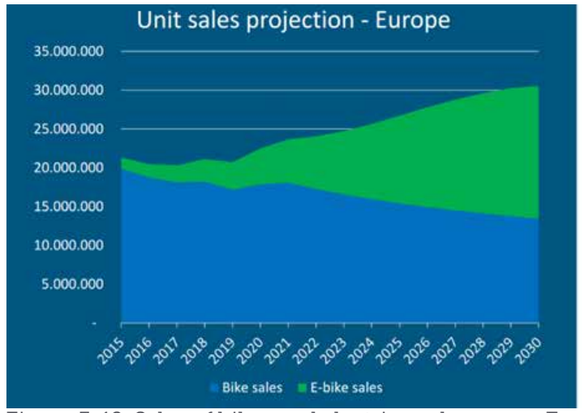


Figure 3-12 Sales of bikes and electric cycles across Europe

Country	Units sold	% increase from 2019
Germany [4]	1.9 million	43
Netherlands [5]	547,000	30
France	514,000	29
Italy [6]	280,000	44
Spain [7]	212,635	49
Austria	204,000	19
Switzerland	171,000	29
UK [8]	170,000	70
Czech Republic [9]	120,000	50

Table 3-3 Electric cycle sales across Europe, 2020

Although European electric cycles sales are on the rise in multiple countries, in 2020 the greatest increase was in the UK.

Despite the upward trajectory of the UK electric cycle market, cost remains a key barrier for many people. However, 66% of people said they would consider purchasing an electric cycle if the UK government committed to a subsidy scheme [10] . In Gear Change (2020), the Department for Transport said it would set-up a national electrically-assisted bike support programme, which 'could include loans, subsidies, or other financial incentives'.

- National e-cycle pilot programme

In May 2022, the Department for Transport announced the launch of the National e-cycle pilot programme, 'Cycling Made E-asy', which will be delivered by Cycling UK. This follows on from a number of smaller e-cycle pilots in 2021 in cities around the UK.

The national pilot programme will not include any financial incentives, instead it will offer people short-term and long-term opportunities to try e-cycles as part of a loan (one, two or three months) and training scheme. The scheme is intended to accelerate the number of trips made by e-cycle replacing motor vehicle journeys in order to maximise health, economic, wellbeing and carbon savings.

Once people can readily access an e-bike, research shows that they have an impact on how people travel. A 2020 Norwegian study, found that people who bought an electric cycle increased the distance they cycled more than four times, from 2.1km to 9.2km a day. In terms of the WGSCN, electric cycles are likely to mean that people are willing to cycle much further on the network, opening up more journey options, for example a 9km cycle ride is more than the distance between Bradford-Upon-Avon and Melksham. They also made more trips by cycling rather than previously driving or taking another mode (48% of trips were cycled, instead of 17% previously [11]) . Electric cycles could therefore have a significant impact on travel mode choice and could lead to much greater rates of cycling on the WGSCN.

1 Gear Change: One Year On (publishing.service.gov.uk)

2 Over half of all Brits considering buying an e-bike, study finds | Bosch eBike Systems

3 Get Ready for the Cycling Boom - Experts Predict 30 Million Bicycle Sales by 2030 | ECF

4 German e-bike market reaches unparalleled sales records - Bike Europe

5 E-bike and bicycle market value hiked by one third in the Netherlands - Bike Europe

6 Bike Europe - Market Reports new status for e-bikes - Italy

7 E-bikes sales in Spain hit record numbers in 2020 - Bike Europe

8 Brits bought over 3 million bikes in 2020 | Mintel.com

9 No huge 'corona' gains in the Czech market - Bike Europe

10 Over half of all Brits considering buying an e-bike, study finds | Cycling Weekly

11 Do people who buy e-bikes cycle more? - ScienceDirect

- Electric scooters

In 2020, the Department for Transport authorised rental electric scooter trials in 31 regions in the UK, including several in the Western Gateway, e.g. Gloucester, Cheltenham, Bournemouth, Poole and across WECA. A comprehensive monitoring and evaluation programme accompanied the trials to assess the safety of electric scooters and their wider impacts. The trials are due to end in May 2024.

In May 2022, the UK government stated that it intends to introduce a Transport Bill as part of its legislative agenda and the Transport Secretary suggested that new legislation regarding the use of electric scooters will be included in the Bill. Assuming that electric scooter usage is therefore permitted beyond the current trials, it is reasonable to assume that electric scooter users would also benefit from the WGSCN. This is because the Department for Transport has made amendments to the Traffic Signs Regulations and General Directions 2016 (that apply to England only) to include electric scooters within the definition of vehicles permitted to use cycle lanes. The range of an average electric scooter is between 12-15 miles but long-range electric scooters can travel 30-50 miles on a single charge, this suggests either could make a wide range of journeys using the WGSCN.

3.5.2. Electric cargo bikes

A cargo bike is a bike that has been specifically designed to carry a load, and an electric cargo bike simply means the cargo bike has an electric motor to help propel it along. Both are becoming more common, particularly in cities and towns with higher levels of cycling, where they are used to carry larger and heavier items, as well as children. Electric cargo bikes are a low carbon transport option, particularly popular with small businesses who need to make deliveries, offering fuel cost savings.

The largest European market for electric cargo bikes is currently Germany, where 103,000 cargo bikes were sold in 2020. This is followed by Denmark with 25,000 sales, Netherlands with 16,000 sales and France with 12,000 sales in 2021. The latest information shows that electric cargo bike sales in Europe grew by 38% in 2020 and were projected to grow by another 66% in 2021.

The relatively high cost of an electric cargo bike can be a deterrent, however, when compared to purchasing a car (even a second-hand one), the price of an electric cargo bike becomes more attractive. Furthermore, government subsidy schemes can make a significant contribution: when Germany expanded a subsidy scheme in March 2021, more than 2,000 applications were approved in just over six months – 5 times more than in 2020[1].

The UK initiated an electric-cargo bike scheme in 2019, which was extended to 2022. £700,000 was granted to local authorities over the three years, providing over 500 bikes & trailers across the country. Some areas within Western Gateway benefitted, such as Bath, Bristol, North Somerset, and South Gloucestershire. The scheme allowed organisations to apply for 40% of the total electric-cargo bike cost, with a maximum of £2,500 for two-wheel models and £4,500 for three-wheel models[2].

3.5.3. Infrastructure required to support the uptake of electric cycles and scooters

It seems clear that electric cycles, cargo bikes and scooters will form an increasing proportion of the vehicles which use the WGSCN in the future. However, it is important to consider that these vehicles have different requirements to regular cycles, cargo bikes and scooters in certain key respects. Some of the important infrastructure to support the uptake of electric micro-mobility will include the following[3]:

• Safety of users: electric cycle and scooters have the potential to travel at higher speeds than unassisted cycles; this places an increased importance on considerations such as lighting, surface quality, and wayfinding

• Accessible design: wider or longer vehicles using the network means it should be designed to be as fully accessible as possible with wide paths or cycle tracks and appropriate bends and turns

• Secure, accessible cycle parking: electric cycles and cargo bikes are relatively expensive so any cycle parking facilities should provide good security features. Cycle parking design should also be able to accommodate longer or wider vehicle sizes

• Charging: charging infrastructure should be integrated into the WGSCN so that users can make journeys without having to be concerned about running out of charge. In June 2022, Sustrans and Bosch announced a partnership that will see electric cycle charging stations placed at key locations across the National Cycle Network

• Electric cycle hire: the ability to hire electric cycles, cargo bikes, and scooters could also be integrated into the WGSCN as this would allow users to make one-way journeys and provide greater flexibility in how the network is used

1 How this country became Europe's cargo bike hub - BBC News
2 Extra funding made available for ecargo bike grants - Energy Saving Trust
3 Cycling infrastructure – planning for the future of cyclists in your city (cyclingsolutions.info)

4 Design principles

The recommendations for this study have been based on the standards presented in the Department for Transport (DfT) Cycle Infrastructure Design guidance document Local Transport Note (LTN) 1/20 and Manual for Streets.

Some of the most relevant criteria considered for cycle corridors and focus junctions recommendations are presented as follows:

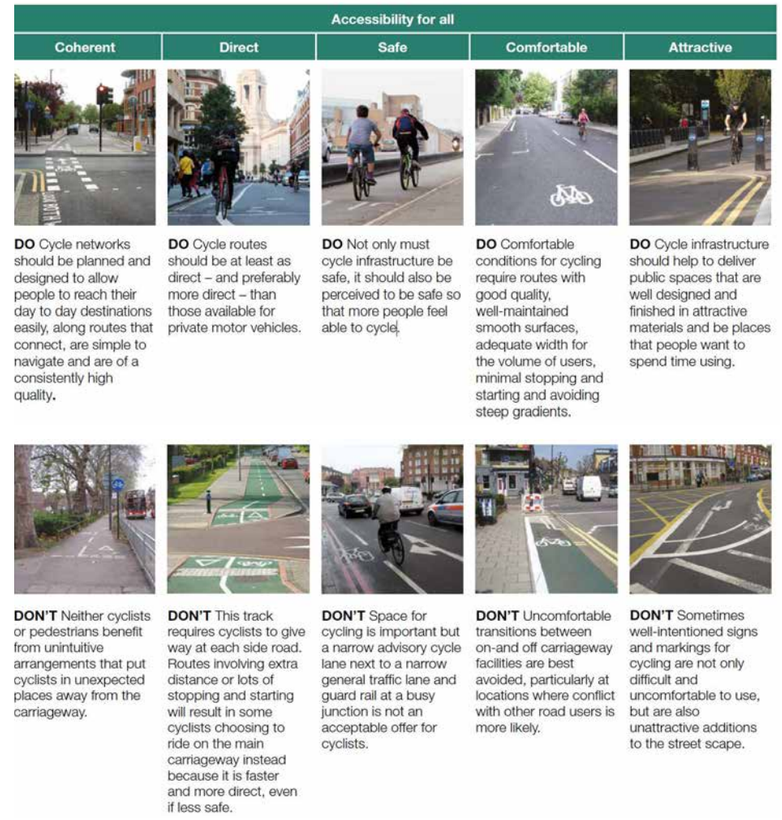
Summary Principles from LTN 1/20

1. Cycle infrastructure should be accessible to everyone from 8 to 80 and beyond: it should be planned and designed for everyone. The opportunity to cycle in our towns and cities should be universal.
2. Cycles must be treated as vehicles and not as pedestrians. On urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians. Where cycle routes cross pavements, a physically segregated track should always be provided. At crossings and junctions, cyclists should not share the space used by pedestrians but should be provided with a separate parallel route.
3. Cyclists must be physically separated and protected from high volume motor traffic, both at junctions and on the stretches of road between them.
4. Side street routes, if closed to through traffic to avoid rat-running, can be an alternative to segregated facilities or closures on main roads – but only if they are truly direct.
5. Cycle infrastructure should be designed for significant numbers of cyclists, and for non-standard cycles. Our aim is that thousands of cyclists a day will use many of these schemes.
6. Consideration of the opportunities to improve provision for cycling will be an expectation of any future local highway schemes funded by Government.
7. Largely cosmetic interventions which bring few or no benefits for cycling or walking will not be funded from any cycling or walking budget.
8. Cycle infrastructure must join together, or join other facilities together by taking a holistic, connected network approach which recognises the importance of nodes, links and areas that are good for cycling.
9. Cycle parking must be included in substantial schemes, particularly in city centres, trip generators and (securely) in areas with flats where people cannot store their bikes at home. Parking should be provided in sufficient amounts at the places where people actually want to go.
10. Schemes must be legible and understandable.
11. Schemes must be clearly and comprehensively signposted and labelled.
12. Major 'iconic' items, such as overbridges must form part of wider, properly thought-through schemes.
13. As important as building a route itself is maintaining it properly afterwards.
14. Surfaces must be hard, smooth, level, durable, permeable and safe in all weathers.
15. Trials can help achieve change and ensure a permanent scheme is right first time. This will avoid spending time, money and effort modifying a scheme that does not perform as anticipated.
16. Access control measures, such as chicane barriers and dismount signs, should not be used.
17. The simplest, cheapest interventions can be the most effective.
18. Cycle routes must flow, feeling direct and logical
19. Schemes must be easy and comfortable to ride.
20. All designers of cycle schemes must experience the roads as a cyclist.
21. Schemes must be consistent.
22. When to break these principles.

Local Transport Note 1/20

This national guidance provides a recommended basis for those standards based on five Core design principles and 22 summary principles, as follows:

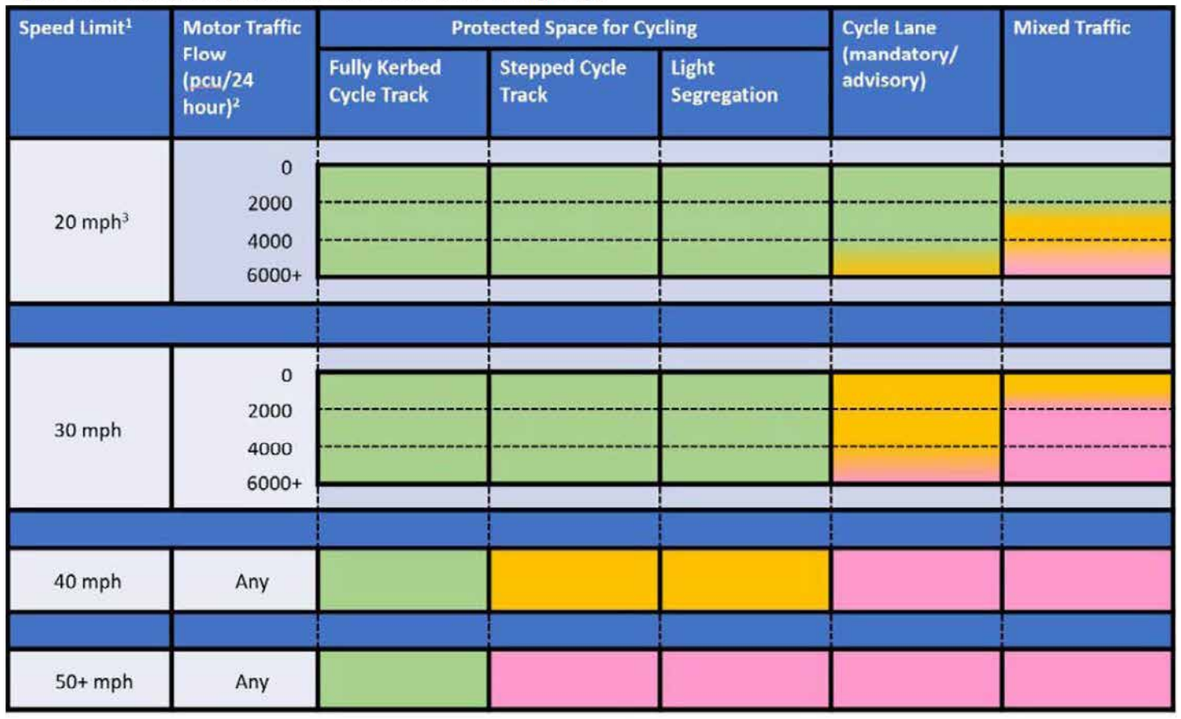
Core design principles



Design Standards

Relevant extracts from LTN 1/20 used as a basis for recommendations in this report:

Figure 4.1: Appropriate protection from motor traffic on highways



Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:

1. If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

Table 6-1: Minimum recommended horizontal separation between carriageway and cycle tracks*

Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

*Separation strip should be at least 0.5m alongside kerbside parking and 1.5m where wheelchair access is required.

Table 5-2: Cycle lane and track widths

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

Table 6-3: Recommended minimum widths for shared use routes carrying up to 300 pedestrians per hour

Cycle flows	Minimum width
Up to 300 cyclists per hour	3.0m
Over 300 cyclists per hour	4.5m

Table 7-2: Minimum acceptable lane widths*

Feature	Desirable minimum	Absolute minimum	Notes
Traffic lane (cars only, speed limit 20/30mph)	3.0m	2.75m	2.5m only at offside queuing lanes where there is an adjacent flared lane
Traffic lane (bus route or >8% HGVs, or speed limit 40mph)	3.2m	3.0m	Lane widths of between 3.2m and 3.9m are not acceptable for cycling in mixed traffic.
2-way traffic lane (no centre line) between advisory cycle lanes	5.5m	4.0m	4.0m width only where AADT flow <4000 vehicles** and/or peak hour <500 vehicles with minimal HGV/Bus traffic.

* these lane widths assume traffic is free to cross the centre line, see 7.2.9 for details on critical widths at pinch points

** While centre line removal is still feasible with higher flows, the frequency at which oncoming vehicles must enter the cycle lane to pass one another can make the facility uncomfortable for cycling.

Table 10-2: Crossing design suitability

Speed Limit	Total traffic flow to be crossed (pcu)	Maximum number of lanes to be crossed in one movement	Uncontrolled	Cycle Priority	Parallel	Signal	Grade separated
≥ 60mph	Any	Any					
40 mph and 50 mph	> 10000	Any					
	6000 to 10000	2 or more					
	0-6000	2					
	0-10000	1					
≤ 30mph	> 8000	> 2					
	> 8000	2					
	4000-8000	2					
	0-4000	2					
	0-4000	1					

Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:

1. If the actual 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow

Figure 10.37: Roundabout with one way cycle tracks and parallel crossings

Figure 10.39: Carriageway-level cycle track used with 'hold the left' traffic staging

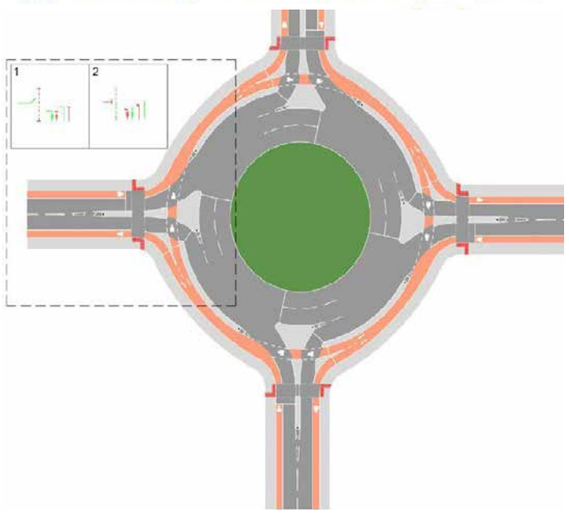


Table 11-1: Suggested minimum cycle parking capacity for different types of land use

Land use type	Sub-category	Short stay requirement (obvious, easily accessed and close to destination)	Long stay requirement (secure and ideally covered)
All	Parking for adapted cycles for disabled people	5% of total capacity co-located with disabled car parking.	5% of total capacity co-located with disabled car parking.
Retail	Small (<200m²)	1 per 100m²	1 per 100m²
	Medium (200-1,000m²)	1 per 200m²	1 per 200m²
	>1,000m²	1 per 250m²	1 per 500m²
Employment	Office/Finance (A2/B1)	1 per 1000m²	1 per 200m²
	Industrial/Warehousing (B2/B8)	1 per 1,000m²	1 per 500m²
Leisure and Institutions	Leisure centres, assembly halls, hospitals and healthcare	Greatest of: 1 per 50m² or 1 per 30 seats/ capacity	1 per 5 employees
	Educational Institutions	–	Separate provision for staff and students. Based on Travel Plan mode share targets, minimum: Staff: 1 per 20 staff Students; 1 per 10 students
Residential	All except sheltered/elderly housing or nursing homes	–	1 per bedroom
	Sheltered/elderly housing/ nursing homes	0.05 per residential unit	0.05 per bedroom
Public Transport Interchange	Standard stop	Upon own merit	–
	Major interchange	1 per 200 daily users	–

Manual for Streets

This national guidance provides recommendations to create good-quality neighbourhoods and streets. Some of the most relevant sections considered for recommendations for walking measures, which need to be considered when designing for cycling, are presented as follows.

6.3.1 The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20-minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a town centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, gardens or interesting architecture are present. Sightlines and visibility towards destinations or intermediate points are important for pedestrian way-finding and personal security, and they can help people with cognitive impairment.

6.3.2 Pedestrians may be walking with purpose or engaging in other activities such as play, socialising, shopping or just sitting. For the purposes of this manual, pedestrians include wheelchair users and people pushing wheeled equipment such as prams.

6.3.3 As pedestrians include people of all ages, sizes and abilities, the design of streets needs to satisfy a wide range of requirements. A street design which accommodates the needs of children and disabled people is likely to suit most, if not all, user types.

6.3.4 Not all disability relates to difficulties with mobility. People with sensory or cognitive impairment are often less obviously disabled, so it is important to ensure that their needs are not overlooked. Legible design, i.e. design which makes it easier for people to work out where they are and where they are going, is especially helpful to disabled people. Not only does it minimise the length of journeys by avoiding wrong turns, for some it may make journeys possible to accomplish in the first place.

6.3.8 The specific conditions in a street will determine what form of crossing is most relevant. All crossings should be provided with tactile paving. Further advice on the assessment and design of pedestrian crossings is contained in Local Transport Notes 1/95[1] and 2/95[2] and the Puffin Good Practice Guide.[3]

6.3.9 Surface level crossings can be of a number of types, as outlined below:

- Uncontrolled crossings – these can be created by dropping kerbs at intervals along a link. As with other types of crossing, these should be matched to the pedestrian desire lines. If the crossing pattern is fairly random and there is an appreciable amount of pedestrian activity, a minimum frequency of 100 m is recommended.[4]Dropped kerbs should be marked with appropriate tactile paving and aligned with those on the other side of the carriageway.
- Informal crossings – these can be created through careful use of paving materials and street furniture to indicate a crossing place which encourages slow-moving traffic to give way to pedestrians
- Pedestrian refuges and kerb build-outs – these can be used separately or in combination. They effectively narrow the carriageway and so reduce the crossing distance. However, they can create pinch-points for cyclists if the remaining gap is still wide enough for motor vehicles to squeeze past them.
- Zebra crossings – of the formal crossing types, these involve the minimum delay for pedestrians when used in the right situation.
- Signalised crossings – there are four types: Pelican, Puffin, Toucan and equestrian crossings. The Pelican crossing was the first to be introduced. Puffin crossings, which have nearside pedestrian signals and a variable crossing time, are replacing Pelican crossings. They use pedestrian detectors to match the length of the crossing period to the time pedestrians take to cross. Toucan and equestrian crossings operate in a similar manner to Puffin crossings except that cyclists can also use Toucan crossings, while equestrian crossings have a separate crossing for horse riders. Signalised crossings are preferred by blind or partially-sighted people.

6.3.12 Pedestrian desire lines should be kept as straight as possible at side-road junctions unless site-specific reasons preclude it. Small corner radii minimise the need for pedestrians to deviate from their desire line. Dropped kerbs with the appropriate tactile paving should be provided at all side-road junctions where the carriageway and footway are at different levels. They should not be placed on curved sections of kerbing because this makes it difficult for blind or partiallysighted people to orientate themselves before crossing.

6.3.13 With small corner radii, large vehicles may need to use the full carriageway width to turn. Swept-path analysis can be used to determine the minimum dimensions required. The footway may need to be strengthened locally in order to allow for larger vehicles occasionally overrunning the corner.

6.3.14 Larger radii can be used without interrupting the pedestrian desire line if the footway is built out at the corners. If larger radii encourage drivers to make the turn more quickly, speeds will need to be controlled in some way, such as through using a speed table at the junction.

6.3.22 There is no maximum width for footways. In lightly used streets (such as those with a purely residential function), the minimum unobstructed width for pedestrians should generally be 2 m. Additional width should be considered between the footway and a heavily used carriageway, or adjacent to gathering places, such as schools and shops. Further guidance on minimum footway widths is given in Inclusive Mobility.

1 Department for Transport (1995) The Assessment of Pedestrian Crossings. Local Transport Note 1/95. London: TSO.
2 Department for Transport (1995) The Design of Pedestrian Crossings. Local Transport Note 2/95. London: TSO.
3 County Surveyors' Society/Department for Transport (2006) Puffin Good Practice
4 Department for Transport (2005) Inclusive Mobility A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure. London: Department for Transport

Relevant extracts from Manual for Streets used as a basis for recommendations in this report:

3.6.8 It is recommended that the design of a scheme should follow the user hierarchy shown in Table 3.2.

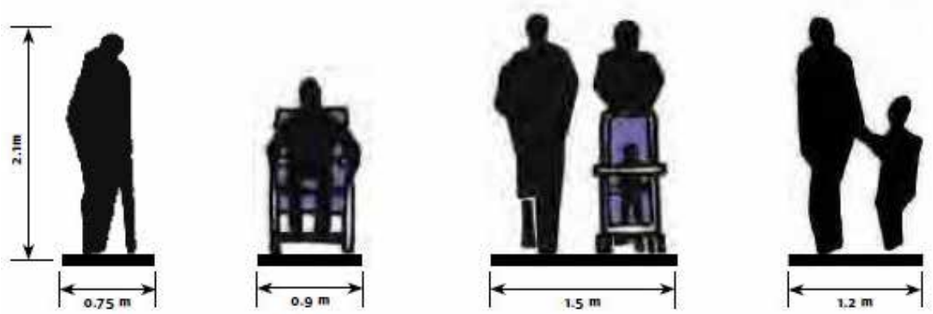
Table 3.2: User hierarchy

Consider first	Pedestrians
↓	Cyclists
↓	Public transport users
↓	Specialist service vehicles (e.g. emergency services, waste, etc.)
Consider last	Other motor traffic

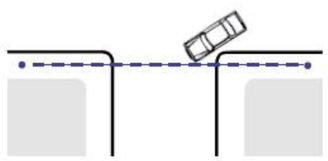
Table 4.1 The hierarchies of provision for pedestrians and cyclists

	Pedestrians
Consider first	Traffic volume reduction
↓	Traffic speed reduction
↓	Reallocation of road space to pedestrians
↓	Provision of direct at-grade crossings, improved pedestrian routes on existing desire lines
↓	New pedestrian alignment or grade separation
Consider last	

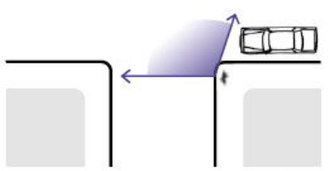
* Adjacent-use routes are those where the cyclists are segregated from pedestrians.



Small radius (eg. 1 metre)

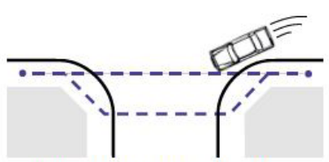


- **Pedestrian desire line (---) is maintained.**
- **Vehicles turn slowly (10 mph – 15 mph).**

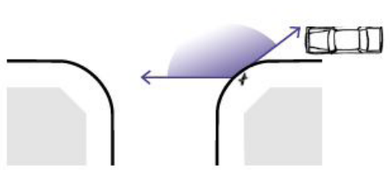


- **Pedestrian does not have to look further behind to check for turning vehicles.**
- **Pedestrian can easily establish priority because vehicles turn slowly.**

Large radius (eg. 7 metres)



- **Pedestrian desire line deflected.**
- **Detour required to minimise crossing distance.**
- **Vehicles turn faster (20 mph – 30 mph).**



- **Pedestrian must look further behind to check for fast turning vehicles.**
- **Pedestrian cannot normally establish priority against fast turning vehicles.**

Figure 6.3 The effects of corner radii on pedestrians.

On-street parking – positive and negative effects

Positive effects

- A common resource, catering for residents', visitors' and service vehicles in an efficient manner.
- Able to cater for peak demands from various users at different times of the day, for example people at work or residents.
- Adds activity to the street.
- Typically well overlooked, providing improved security.
- Popular and likely to be well-used.
- Can provide a useful buffer between pedestrians and traffic.
- Potentially allows the creation of areas within perimeter blocks that are free of cars.

Negative effects

- Can introduce a road safety problem, particularly if traffic speeds are above 20 mph and there are few places for pedestrians to cross with adequate visibility.
- Can be visually dominant within a street scene and can undermine the established character (Fig. 8.11).
- May lead to footway parking unless the street is properly designed to accommodate parked vehicles.
- Vehicles parked indiscriminately can block vehicular accesses to dwellings.
- Cars parked on-street can be more vulnerable to opportunistic crime than off-street spaces.

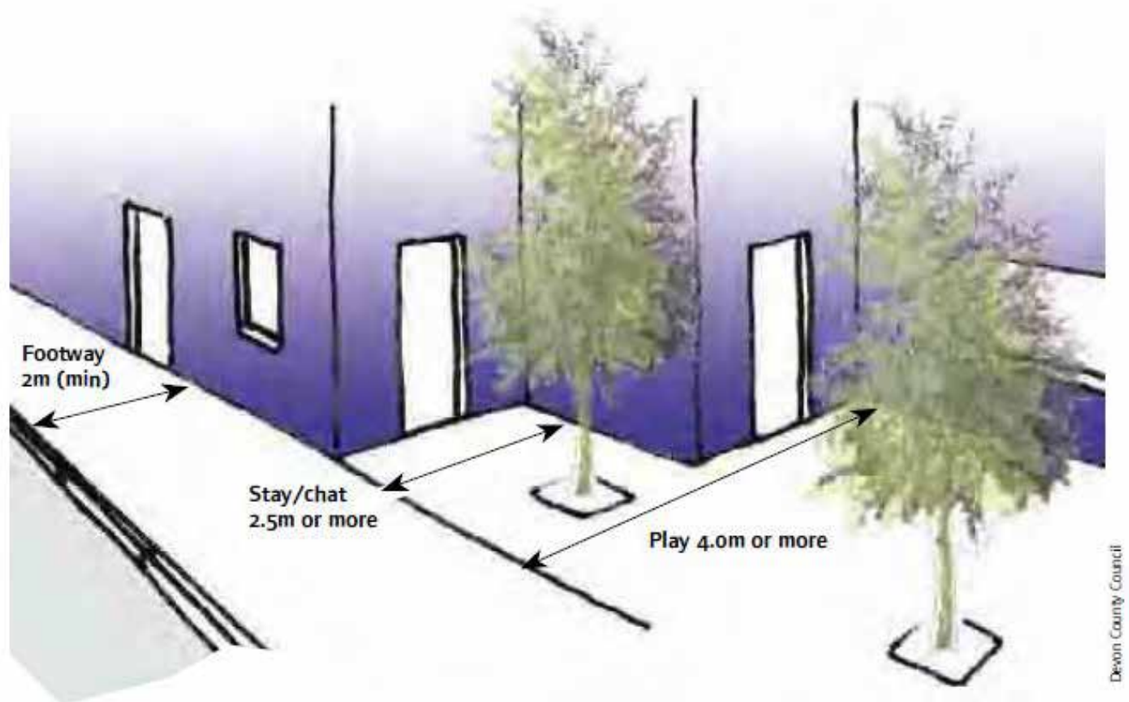


Figure 6.8 The footway and pedestrian areas provide for a range of functions which can include browsing, pausing, socialising and play.

Healthy Streets Design Check[1]

This national guidance provides recommendations to create good-quality neighbourhoods and streets. Some of the most relevant sections considered for interventions are presented as follows.

What is Healthy Streets?

Every decision we make about our built environment, however small, is an opportunity to deliver better places for people to live in and thereby improve their health. The Healthy Streets Approach is a human-centred framework for embedding public health in transport, public realm and planning.

The 10 Healthy Streets Indicators

Our Approach is based on 10 evidence-based Healthy Streets Indicators, each describing an aspect of the human experience of being on streets. These ten must be prioritised and balanced to improve social, economic and environmental sustainability through how streets are designed and managed.

This Approach can be applied to any streets, anywhere in the world. It builds improvements on existing conditions rather than seeking a fixed end goal. Taking this Approach requires incremental changes in all aspects of the decision-making processes related to streets and transport.

- Everyone feels welcome

Streets must be welcoming places for everyone to walk, spend time and engage with other people. This is necessary to keep us all healthy through physical activity and social interaction. It is also what makes places vibrant and keeps communities strong. The best test for whether we are getting our streets right is whether the whole community, particularly children, older people and disabled people are enjoying using this space.

- Easy to cross

Our streets need to be easy to cross for everyone. This is important because people prefer to be able to get where they want to go directly and quickly so if we make that difficult for them they will get frustrated and give up. This is called 'severance' and it has real impacts on our health, on our communities and on businesses too. It is not just physical barriers and lack of safe crossing points that cause severance, it's fast moving traffic too.

1 https://www.healthystreets.com/what-is-healthy-streets

- Shade & shelter

Shade and shelter can come in many forms – trees, awnings, colonnades – and they are needed to ensure that everyone can use the street whatever the weather. In sunny weather we all need protection from the sun, in hot weather certain groups of people struggle to maintain a healthy body temperature, in rain and high winds we all welcome somewhere to shelter. To ensure our streets are inclusive of everyone and welcoming to walk and cycle in no matter the weather we must pay close attention to shade and shelter.

- Places to stop & rest

Regular opportunities to stop and rest are essential for some people to be able to use streets on foot or bicycle because they find travelling actively for longer distances a challenge. Seating is therefore essential for creating environments that are inclusive for everyone as well as being important for making streets welcoming places to dwell.

- Not too noisy

Noise from road traffic impacts on our health and wellbeing in many ways, it also makes streets stressful for people living and working on them as well as people walking and cycling on them. Reducing the noise from road traffic creates an environment in which people are willing to spend time and interact.

- People choose to walk & cycle

We all need to build regular activity into our daily routine and the most effectively to do this is to walk or cycle for short trips or as part of longer public transport trips. People will choose to walk and cycle if these are the most attractive options for them. This means making walking and cycling and public transport use more convenient, pleasant and appealing than private car use.

- People feel safe

Feeling safe is a basic requirement that can be hard to deliver. Motorised road transport can make people feel unsafe on foot or bicycle, especially if drivers are travelling too fast or not giving them enough space, time or attention. Managing how people drive so that people can feel safe walking and cycling is vital.

People also need to feel safe from antisocial behaviour, unwanted attention, violence and intimidation. Street lighting and layout, 'eyes on the street' from overlooking buildings and other people using the street can all help to contribute to the sense of safety.

- Things to see & do

Street environments need to visually appealing to people walking and cycling, they need to provide reasons for people to use them – local shops and services, opportunities to interact with art, nature, other people.

- People feel relaxed

The street environment can make us feel anxious – if it is dirty and noisy, if it feels unsafe, if we don't have enough space, if we are unsure where to go or we can't easily get to where we want to. All of these factors are important for making our streets welcoming and attractive to walk, cycle and spend time in.

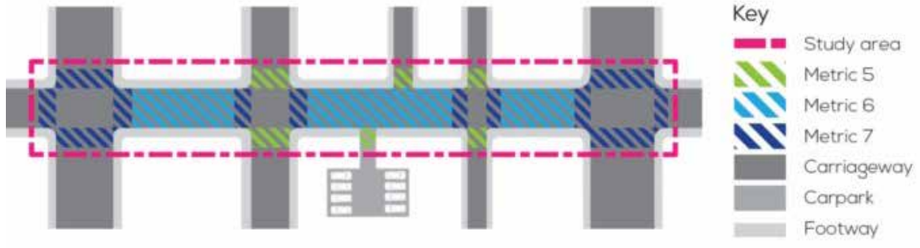
- Clean air

Air quality has an impact on the health of every person but it particularly impacts on some of the most vulnerable and disadvantaged people in the community – children and people who already have health problems. Reducing air pollution benefits us all and helps to reduce unfair health inequalities.

Design Standards

Scoring

	Metrics	Score			
		3	2	1	0
1	**Motorised vehicle speed**	When motorised traffic is travelling at its fastest the majority of vehicles are travelling below 20 mph	When motorised traffic is travelling at its fastest the majority of vehicles are travelling 20-25mph	When motorised traffic is travelling at its fastest the majority of vehicles are travelling 25-30mph	When motorised traffic is travelling at its fastest the majority of vehicles are travelling at 30 mph+
2	**Volume of motorised traffic**	There are 199 or fewer vehicles in the peak hour (both directions)	There are 200-499 vehicles in the peak hour (both directions)	There are 500-999 vehicles in the peak hour (both directions)	There are more than 1000 vehicles in the peak hour (both directions)
3	**Mix of vehicles**	No large vehicles use the street	The proportion of large vehicles is less than 2% of motorised traffic in the peak hour	The proportion of large vehicles is 2-5% of motorised traffic in the peak hour	The proportion of large vehicles is greater than 5% of motorised traffic in the peak hour
4	**Cycle safety at junctions**	Assessing the poorest performing junction for cycle safety, 80% or more of all movements are assessed as green under the Junction Assessment Tool (LTN 1/20)	Assessing the poorest performing junction for cycle safety, 50-79% of all movements are assessed as green under the JAT	Assessing the poorest performing junction for cycle safety, there are no red scores under the JAT	A red score under the JAT has been found on one or more of the movements at any of the junctions on the street
5	**Ease of crossing side roads**	The weakest side road has a narrow, tight junction geometry such that a turning motorised vehicle must slow down to less than 10 mph and raised table/continuous footway at the entrance	The weakest side road has a narrow, tight junction geometry such that a turning motorised vehicle must slow down to less than 10 mph but instead of a raised table at the entrance it has dropped kerbs	The weakest side road has dropped kerbs and these are on the desire line or a raised table/continuous footway	The weakest side road is missing at least 1 dropped kerb or dropped kerbs are not on the desire line

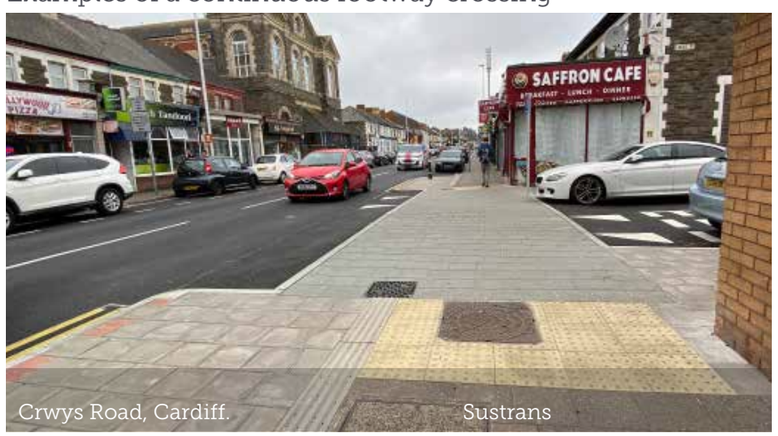


Facility type		3 points	2 points	1 point	0 points
Un-signalised	**Level surface for footways and carriageway**	Level surface for maximum one lane width and metric 1 'motorised vehicle speed' scores 3	Level surface for maximum 1 lane in each direction and metric 1 'motorised vehicle speed' scores 3	Level surface for maximum one lane width and metric 1 'motorised vehicle speed' scores below 3	No crossing facility or pedestrian refuge provided between junctions or does not meet threshold to score 1 point
	Zebra / Parallel crossing	Crossing no more than one lane in each direction and crossing is raised	Crossing no more than one lane in each direction and not-raised and metric 1 'motorised vehicle speed'scores 3	Crossing no more than one lane in each direction and not-raised and metric 1 'motorised vehicle speed' scores 2 or 1	
	Unsignalised, pedestrian refuge	-	-	Step free access to a 2m+ wide pedestrian refuge crossing and no more than one lane in each direction and metric 1 'motorised vehicle speed' scores 3 or 2	
Signalised	**Signalised crossing**	Step-free one-stage crossing and maximum wait time for green signal is 15 seconds.	Step-free one-stage crossing and wait time for green signal is more than 15 seconds.	Step-free two- or more stage crossing.	Not step free.

Metric 7 Priority of crossing at junctions*

Facility type		3 points	2 points	1 point	0 points
Un-signalised	**Level surface for footways and carriageway**	Level surface for maximum one lane width and metric 1 'motorised vehicle speed' scores 3	Level surface for maximum 1 lane in each direction and metric 1 'motorised vehicle speed' scores 3	Level surface for maximum one lane width and metric 1 'motorised vehicle speed' scores below 3	No crossing facility or pedestrian refuge provided between junctions or does not meet threshold to score 1 point
	Zebra / Parallel crossing	Crossing no more than one lane in each direction and crossing is raised	Crossing no more than one lane in each direction and not-raised and metric 1 'motorised vehicle speed'scores 3	Crossing no more than one lane in each direction and not-raised and metric 1 'motorised vehicle speed' scores 2 or 1	
	Unsignalised, pedestrian refuge	-	-	Step free access to a 2m+ wide pedestrian refuge crossing and no more than one lane in each direction and metric 1 'motorised vehicle speed' scores 3 or 2	
Signalised	**Signalised crossing**	Step-free one-stage crossing and maximum wait time for green signal is 30 seconds.	Step-free one-stage crossing and wait time for green signal is more than 30 seconds.	Step-free two- or more stage crossing.	Not step free.

Examples of a continuous footway crossing



Crwys Road, Cardiff. Sustrans

Crwys Road, Cardiff. Sustrans


Crwys Road, Cardiff. Sustrans

5 Network Planning Methodology

Network Principles

The network has a wide remit in terms of the types of trips it will serve, and some of these will have different demands meaning a balance needs to be struck. For example, commuting trips are generally best served by fast and direct routes which minimise travel time for users whereas the most popular leisure routes tend to take the more scenic and less direct routes, away from traffic. Clearly a network designed for commuting would not necessarily be the optimal network for tourism and leisure trips, and vice versa.

To balance these different priorities on the network, the network has been designed following DfT guidance for LCWIPs and using LTN 1/20. The core design principles for cycling are set out below. In this way, the network will provide a good level of service for the majority of trips rather than being biased towards certain trip types.

Core Cycle Design Principles:

- Coherent
- Direct
- Safe
- Comfortable
- Attractive

Desire Lines

The starting point for designing the WGSCN was to map all of the "key settlements" within the Western Gateway area and this was done using data from the 2011 Census[1] for all settlements with a population of 5,000+. As well as centres of population, settlements act as proxies for economic activity and key destinations - appropriate for the development of a high level strategic cycle network at this geographic scale.

A review was undertaken of all of the Western Gateway settlements with a population below this threshold and some were added to the list as they were considered important settlements despite a smaller population, or it was considered that the settlement may have expanded since the 2011 census to now exceed the population threshold of 5,000 inhabitants. For example, Cricklade in Wiltshire had a population of approx. 4,000 in 2011 but is considered an important settlement, located between Swindon and Circencester, and was therefore added to the list of settlements.

Links to settlements just outside of the Western Gateway area were included for the purposes of network planning and creating cross-boundary routes. For example, as can be seen in the following maps, places such as Frome, Swindon and Yeovil were included.

Desire lines were drawn between the settlements and their nearest neighbours to identify potential route corridors. Desire lines of significant length (approx 25km+) such as Bournemouth to Warminster were not included as the demand is not considered to be sufficient due to the long distance. Corridors between settlements and train stations were also identified.

1 2021 Census data was not yet available at the time of analysis.

Key Settlements and Desire Lines

N

Legend

Western Gateway Settlements by Population

- 3,500 – 25,000
- > 25,000 – 50,000
- > 50,000 – 100,000
- > 100,000 – 200,000
- > 200,000+

Western Gateway Desire Lines

Tewkesbury
Bishop's Cleeve
Winchcombe
Newent
Cheltenham
Innsworth
Gloucester
Cinderford
Coleford
Stonehouse
Stroud
Lydney
Chalford
Cirencester
Nailsworth
Dursley
Wotton-under-Edge
Cricklade
Tetbury
Thornbury
Malmesbury
Royal Wootton Bassett
Swindon
Yate
Chipping Sodbury
Filton
Frampton Cotterell
Winterbourne
Lyneham Airfield
Portishead
Pill
Bristol
Clevedon
Nailsea
Long Ashton
Backwell
Chippenham
Corsham
Calne
Marlborough
Keynsham
Saltford
Bath
Yatton
Melksham
Bradford on Avon
Devizes
Pewsey
Weston-super-Mare
Peasedown St John
Trowbridge
Winscombe
Paulton
Radstock
Midsomer Norton
Westbury
Ludgershall
Tidworth
Frome
Warminster
Bulford Camp
Amesbury
Wilton
Salisbury
Gillingham
Shaftesbury
Sherborne
Yeovil
Blandford Forum
Verwood
St Leonards
Wimborne Minster
Ferndown
Oakley
Christchurch
Poole
Bournemouth
Lyme Regis
Bridport
Dorchester
Wareham
Swanage
Weymouth
Weston (Portland)

This map shows the desire lines connecting the key settlements across the Western Gateway area

Esri UK, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS

0 12.5 25 50 Kilometres

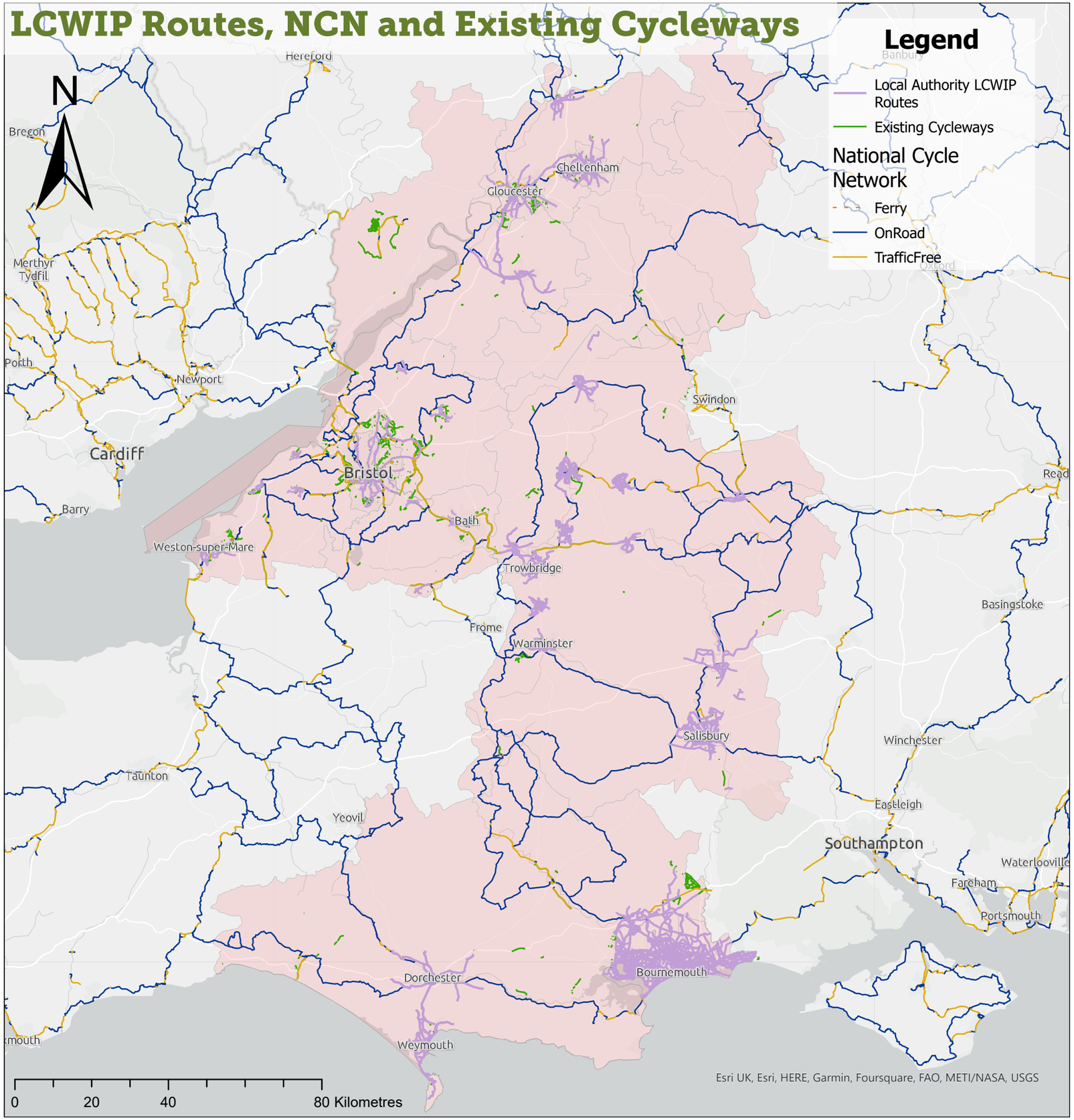
Local Authority LCWIP Routes

Each of the Local Authority members of the Western Gateway provided a GIS file showing their LCWIP routes which were then mapped onto Sustrans' GIS system. Some Local Authorities have LCWIPs under development and some are yet to have started. However, LCWIPs have been completed for the majority of the major towns across the STB area.

Allied to the above, it is noteworthy that LCWIPs are live documents. They can and will change and in this way this Strategic Cycle Network should also be considered a live document which will give it the ability to change and adapt to remain coherent with Local Authority LCWIP proposals, enabling it to best meet the needs of the STB area.

NCN and Existing Cycle Networks

GIS layers showing the NCN and existing cycle network were added to the map. In combination with the LCWIP routes, this data was reviewed to identify gaps in the existing/proposed network. Notable gaps were identified on local authority boundaries, at smaller settlements not covered by LCWIPs and at some public transport interchanges.



Proposed Strategic Cycle Network

Strategic Cycle Network Routes

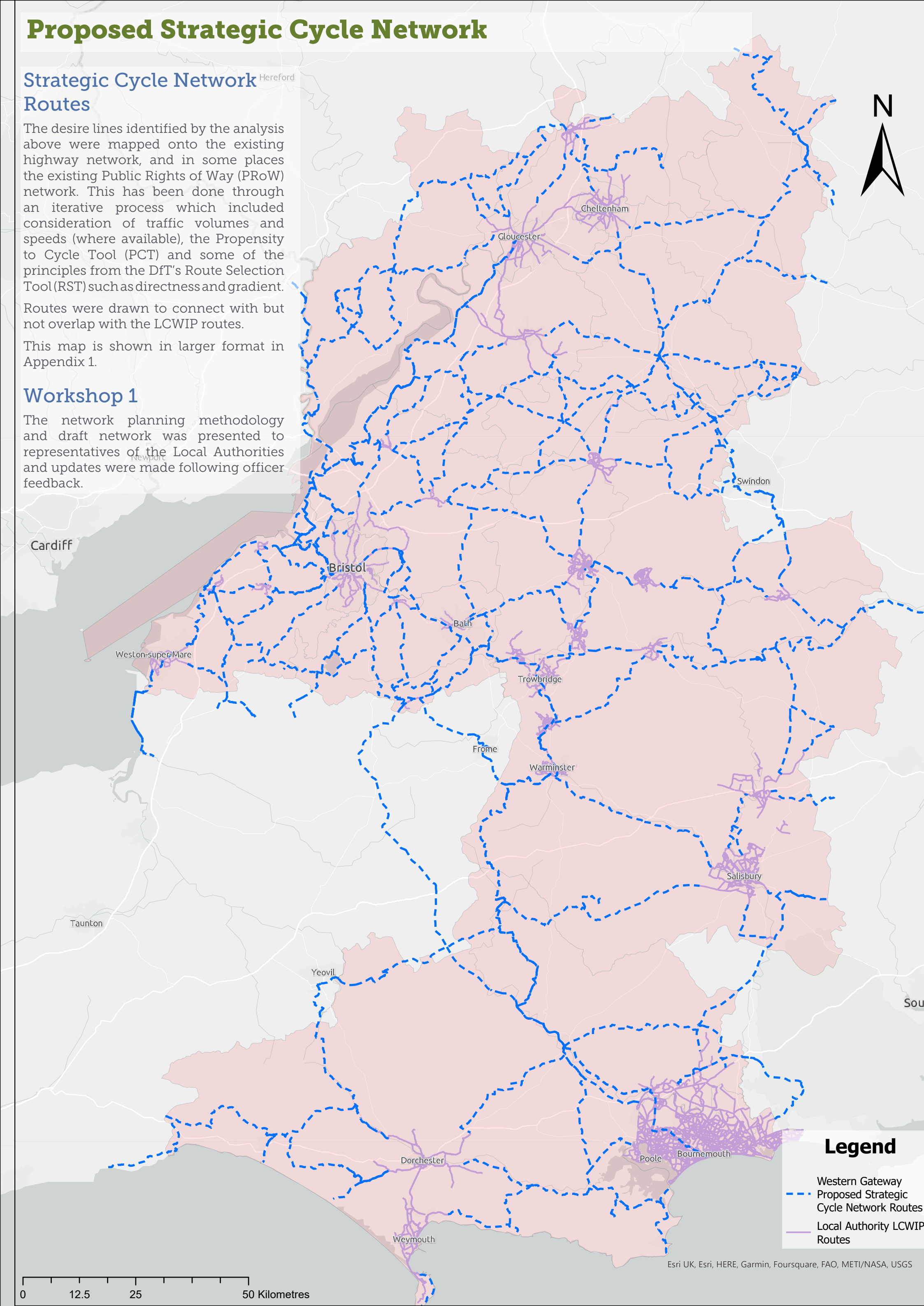
The desire lines identified by the analysis above were mapped onto the existing highway network, and in some places the existing Public Rights of Way (PRoW) network. This has been done through an iterative process which included consideration of traffic volumes and speeds (where available), the Propensity to Cycle Tool (PCT) and some of the principles from the DfT's Route Selection Tool (RST) such as directness and gradient.

Routes were drawn to connect with but not overlap with the LCWIP routes.

This map is shown in larger format in Appendix 1.

Workshop 1

The network planning methodology and draft network was presented to representatives of the Local Authorities and updates were made following officer feedback.



6 Prioritisation

One of the aims of the study is to prioritise routes for future funding – as and when it becomes available – and delivery. To this end, a robust prioritisation methodology is required to identify which of the routes are likely to be of the greatest importance and have the highest impact in terms of modal shift towards cycling.

Workshop 2

A long list of possible prioritisation criteria was developed and circulated to the Local Authorities. A workshop was then held to discuss the criteria and collectively agree which should be included for the final analysis. Further to discussion at the workshop and feedback from Western Gateway and Atkins, the following prioritisation criteria have been included within the final methodology:

- Residential Trip Potential (total resident population (2011 Census) within 400m of route)
- Employment Trip Potential (total workplace population (2011 Census) within 400m of route)
- Key destinations (total number of key destinations within 400m of route e.g. shops, cafes, schools and health destinations etc.)
- Tourism destinations (number of top tourism destinations within 400m, tagged within Open Street Maps)
- Rail connectivity (total score of railway stations within 400m of route based on Western Gateway's 'Role of Station' definition. National hub=4pts, regional hub=3pts, local hub=1pt)
- Bus connectivity (number of bus stops within 400m of route)
- How many NCN routes does the route connect with?
- How many LCWIP routes does the route connect with?
- Does the route cross between two Western Gateway Local Authorities? Cross-boundary routes score higher.
- Does the route cross or follow part of the Strategic Road Network?
- Indices of Multiple Deprivation (average IMD rank within 400m)
- Local Officer Assessment of Strategic Importance

ROUTE (ROUTE CODE: ROUTE NAME)	Length (KM)	TOTAL SCORE	RANK
NSB1: Pill to Filton	10.8	59	1
BANES_B2: Mangotsfield Station to Keynsham Ring Road	9.5	53	2
GSG5: Sedbury to Severn Beach	17.0	47	3
BANES_W1: Bath to Corsham	15.2	47	3
BANES6: Bath to Midsomer Norton	20.2	46	5
D8: Yeovil to Sherborne	9.8	45	6
BANES_B1: Radstock to Bristol	20.8	45	6
SGB1: Coombe Dingle to Cribbs Causeway	4.7	45	6
NSS1: Weston-super-Mare to Highbridge	22.7	44	9
GSG3: Wotton-under-Edge to Thornbury	13.1	44	9
NS10: Portishead to Pill	6.4	44	9
SGB2: Severn Beach to Shirehampton	10.7	44	9
SW2: Swindon to Marlborough	21.0	43	13
BANES_B3: Bristol to Bath	14.4	43	13
NS7: Clevedon to Winscombe	16.8	43	13
D28: Shaftesbury to Gillingham	7.6	42	16
NSB4: Bristol to Churchill	18.0	41	17
NSB3: Long Ashton to Bristol	3.3	40	18
NSB5: Avon Path Pill to Bristol	8.6	40	18
GW2: Malmesbury to Cirencester	18.8	40	18
BANES_SG2: Keynsham to BBRP	2.6	40	18
NS9: Clevedon to Weston-super-Mare	15.9	39	22
SW1: Royal Wootton Bassett to Swindon	7.5	39	22

The data-led prioritisation process using the criteria presented on this page provided the top 23 routes shown in the table above. The agreed scope of this work was to present interventions for the top 20 routes identified by the prioritisation process - see following chapter. Some of the top 20 scoring routes already have existing active travel infrastructure on them (e.g. BANES_B3: Bristol to Bath). We have retained these routes in the prioritised list but have also increased the list of routes to 23.

Further details of the prioritisation process are included in the Appendices. Appendix 2 contains the full prioritisation table for all routes with raw scores and rank for each criterion. Appendix 3 shows every route labelled on the network map for reference.

Top Prioritised Proposed Routes

Hereford
Banbury
Cheltenham
Gloucester
Newport
Bristol
Swindon
Weston-super-Mare
Bath
Trowbridge
Frome
Warminster
Salisbury
Taunton
Yeovil
Eastleigh
Southampton
Dorchester
Poole
Bournemouth
Weymouth
GSG5
GSG3
GW2
SW1
SW2
SGB2
SGB1
NS10
NSB1
NSB5
NSB3
BANES_B2
BANES_B3
BANES_W1
BANES6
NS9
NS7
NSB4
BANES_B1
NSS1
D28
D8

Legend

- Top Prioritised Proposed Routes
- Western Gateway Proposed Strategic Cycle Network Routes

Esri UK, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS

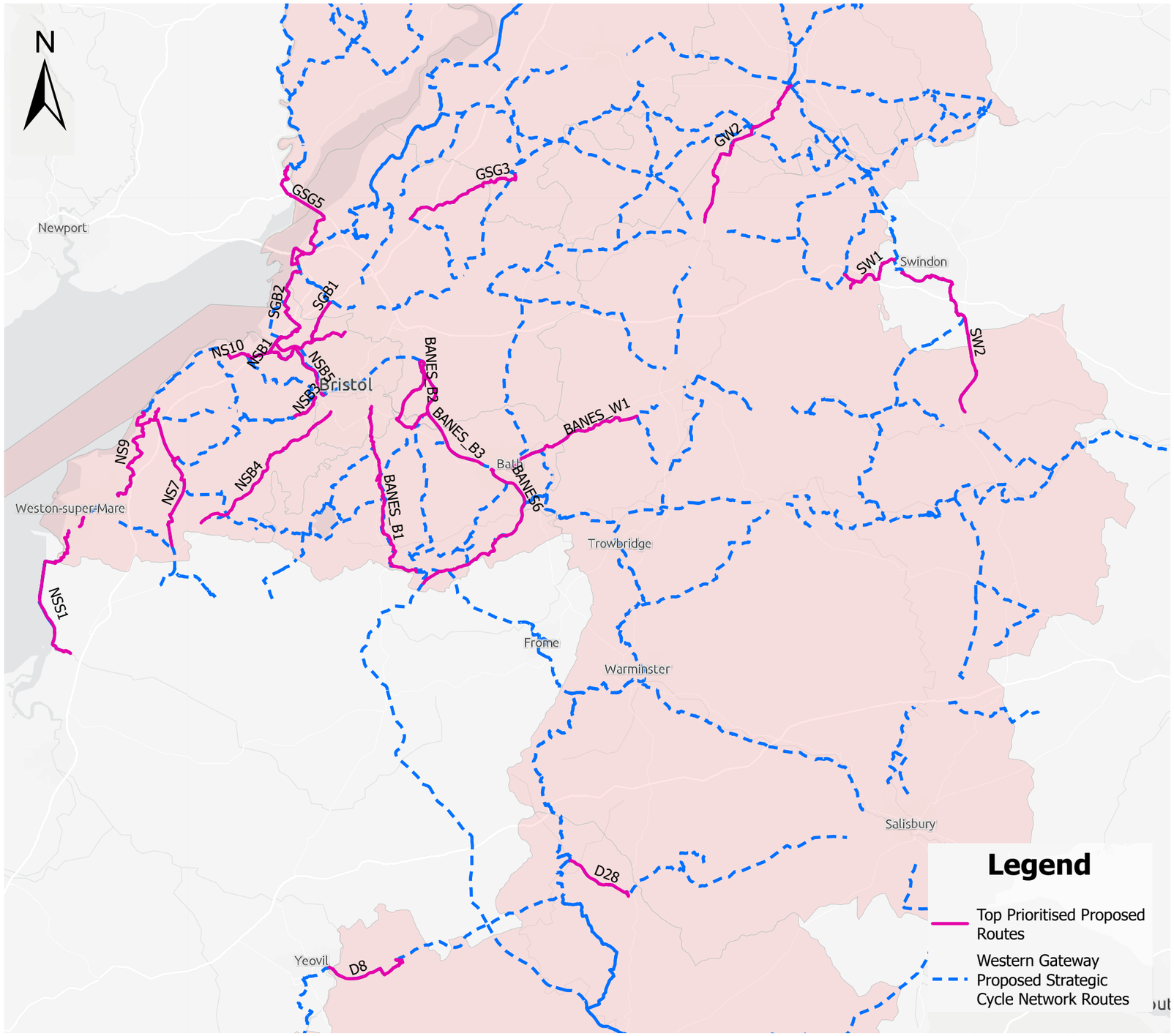
0 12.5 25 50 Kilometres

7 High Level Interventions

For the top 23 schemes identified by the prioritisation set out previously in the report, a desktop assessment of the route has been undertaken. This considered the suitability of the local road network and the potential off-highway/alternative alignments available such as bridleways, disused railway lines or canal tow paths. The top 23 schemes are shown on the adjacent map.

A series of high-level interventions required to ensure each route meets LTN 1/20 guidance has been developed. This exercise has been carried out with the use of Google Streetview and satellite mapping software, with reference to traffic data where available, however routes were not visited on site, given the extensive geographic scale of the network. For this reason, route alignments and interventions are indicative and high level, with the eventual design solution subject to further scheme development work based upon site visits, local stakeholder knowledge and a review of up-to-date site data such as traffic speeds and flows, topographical, ecological and arboricultural surveys, Land Registry enquiries etc.

The pages below indicate the proposed alignment of the routes in addition to the type of provision recommended such as mixed traffic, shared use path/greenway or segregated cycle tracks. Point recommendations are also made where interventions are required in specific locations such as crossing points or barrier removal.



Route 1: NSB1 Pill to Filton

Route Description

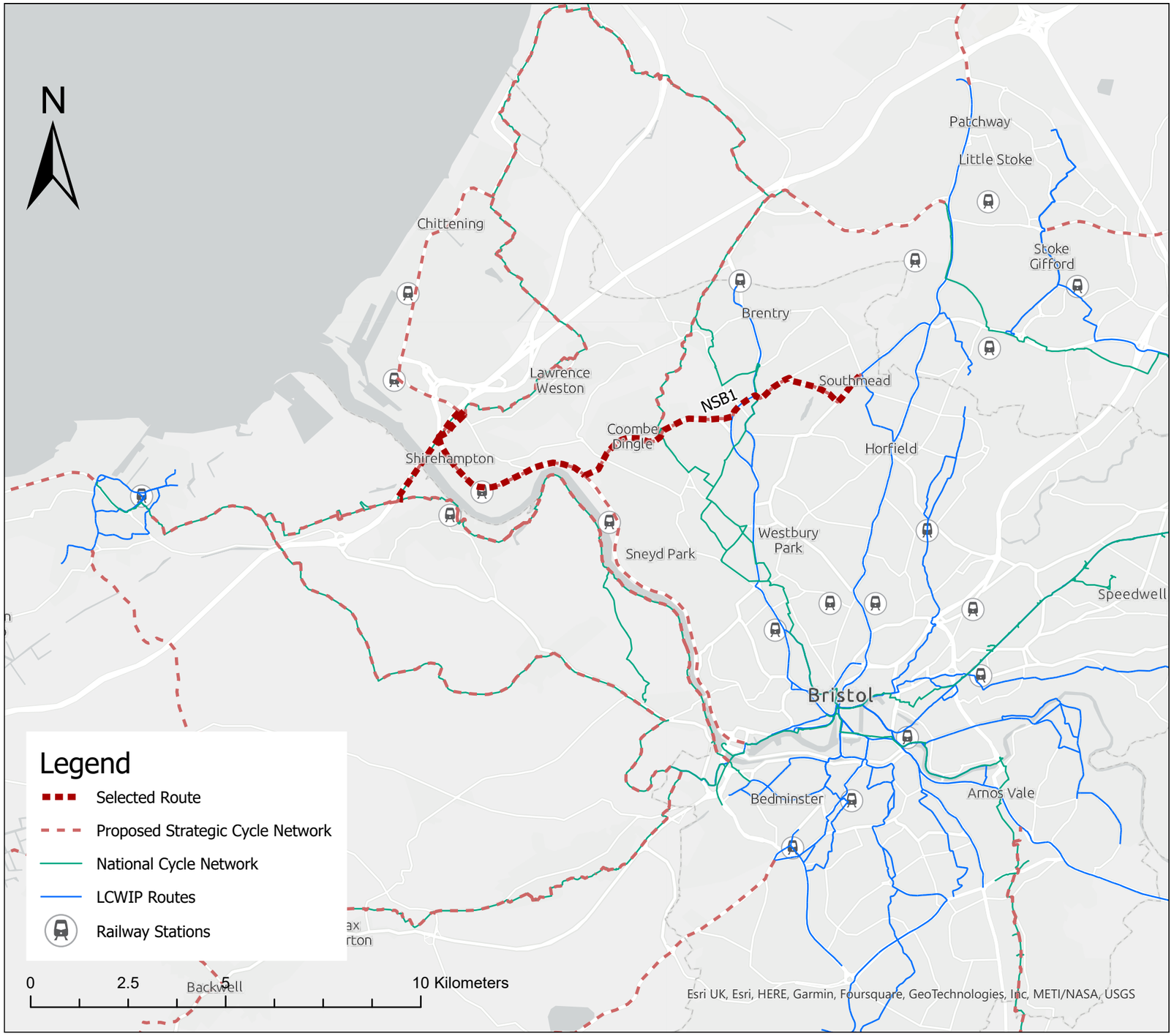
- Route connects NCN26 in Pill to Monks Park Avenue in Filton via the M5 bridge
- Approximately 10.7 km in length
- Key destinations along the alignment:
  - Shirehampton Primary School
  - St Bernard's Catholic Primary School
  - Port of Bristol Sports And Community Hub
  - Shirehampton and proposed Pill Railway Station
  - Canford Cemetery & Crematorium
  - Elmfield School for Deaf Children
  - Badocks Wood E-ACT Academy
  - Bristol Free School
  - Badocks Wood Community Primary School & Children's Centre
  - Southmead Hospital
- There is a segregated shared path along M5, advisory cycle lane along Portway (M4) and a few Advance Stop Lines along Southmead Rd
- It connects to the following NCN Routes:
  - Route 41
  - Route 4

Opportunities on the Route

- Advisory cycle lane along Portway can be replaced by segregated cycle track
- Several key destinations as schools along the route
- Flat area with few hills/gradients

Constraints on the Route

- Busy roads with limited space for cycle infrastructure on route section from Portway to Monks Park Avenue



Route 1: NSB1 Pill to Filton

Mixed traffic use on West Town Road

Segregated cycle track on Dingle Road

Explore cycle stands in front of commercial area

Install controlled crossing. Consider removing pedestrian bridge

Install controlled crossing

Legend

Proposed Interventions

- Controlled crossing
- Cycle parking
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

0 1.25 2.5 5 Kilometers

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

Route 2: BANES_B2 Mangotsfield Station to Keynsham

Route Description

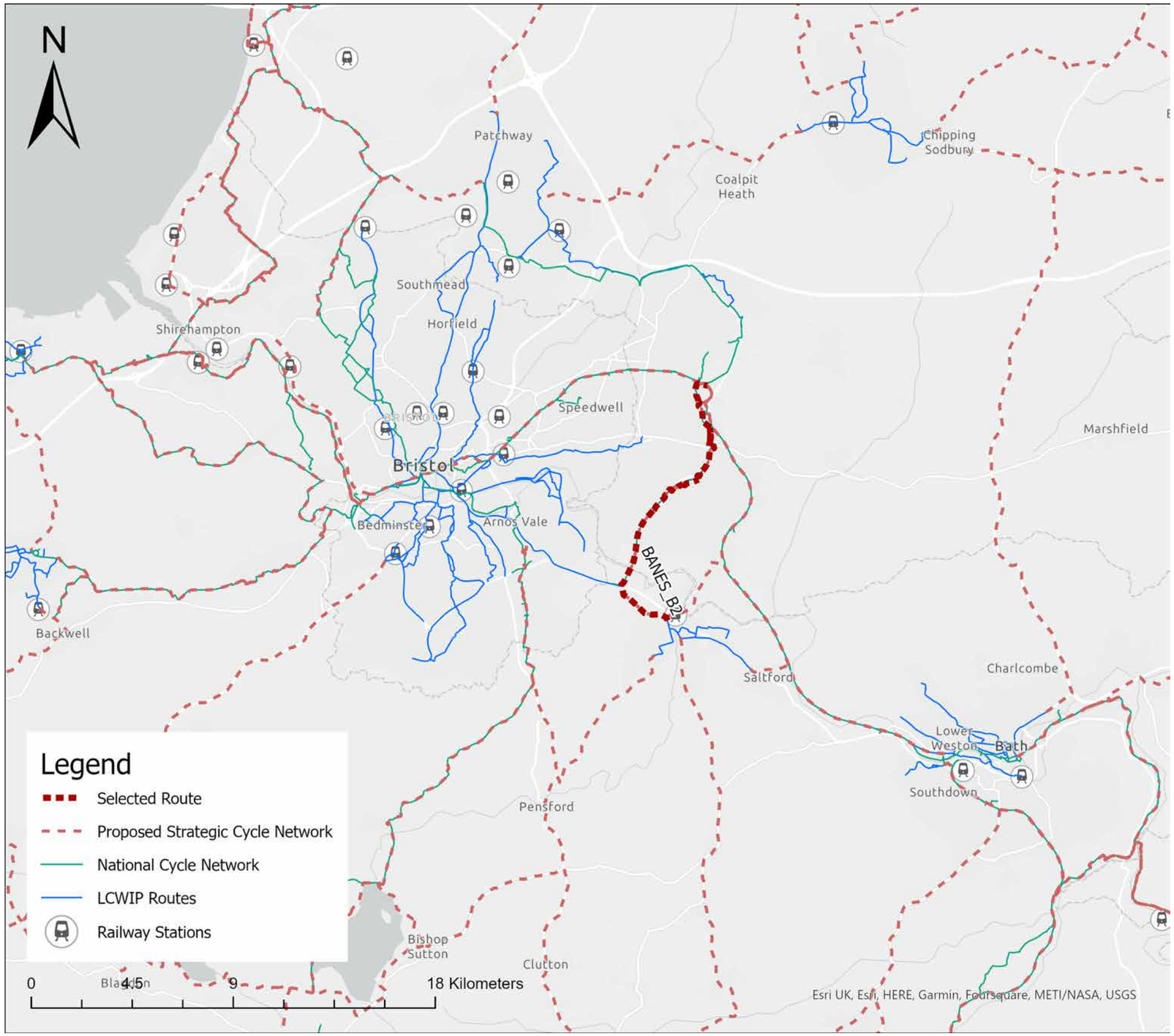
- Route connects Mangotsfield Station in South Gloucestershire to Keynsham in Bath and North East Somerset, following the alignment of the A4174 Ring Road
- Approximately 9.5km in length
- The route connects to the following destinations:
  - Aspects Leisure Park
  - Gallagher Retail Park
  - Keynsham Town Centre and Station
  - Bristol and Bath Railway Path
  - Digitech Studio School
- The route connects residential areas to schools, leisure and retail destinations including the Bristol and Bath Railway Path, Aspects Leisure Park and Gallagher Retail Park.
- Much of the route along the A4174 comprises existing shared use provision but it's width and surface require improvement. Moreover, barriers on the route prevent access for some users.
- There is no segregated provision on Durley Hill between the A4 and Keynsham which makes it unsuitable for most users based on the speed and flow of traffic
- The route follows NCN Route 16 for much of it's length

Opportunities on the Route

- Much of the route already comprises traffic free provision in the form of a shared use path

Constraints on the Route

- The A4174 creates a significant barrier which limits opportunities for users to join and leave the route
- Durley Hill west of Keynsham is a busy road with limited space for segregated provision



Route 2: BANES_2 Mangotsfield Station to Keynsham

Improve existing provision with priority over side road junctions

Provide quietway treatment and investigate a bus gate/modal filter on Craven Way

Install segregated provision on the A4175 Durley Hill

0 1.75 3.5 7 Kilometers

Legend

Proposed Interventions

- Controlled crossing
- Junction improvement
- Remove or redesign barriers
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

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Route 3: GSG5 Sedbury to Severn Beach

Route Description

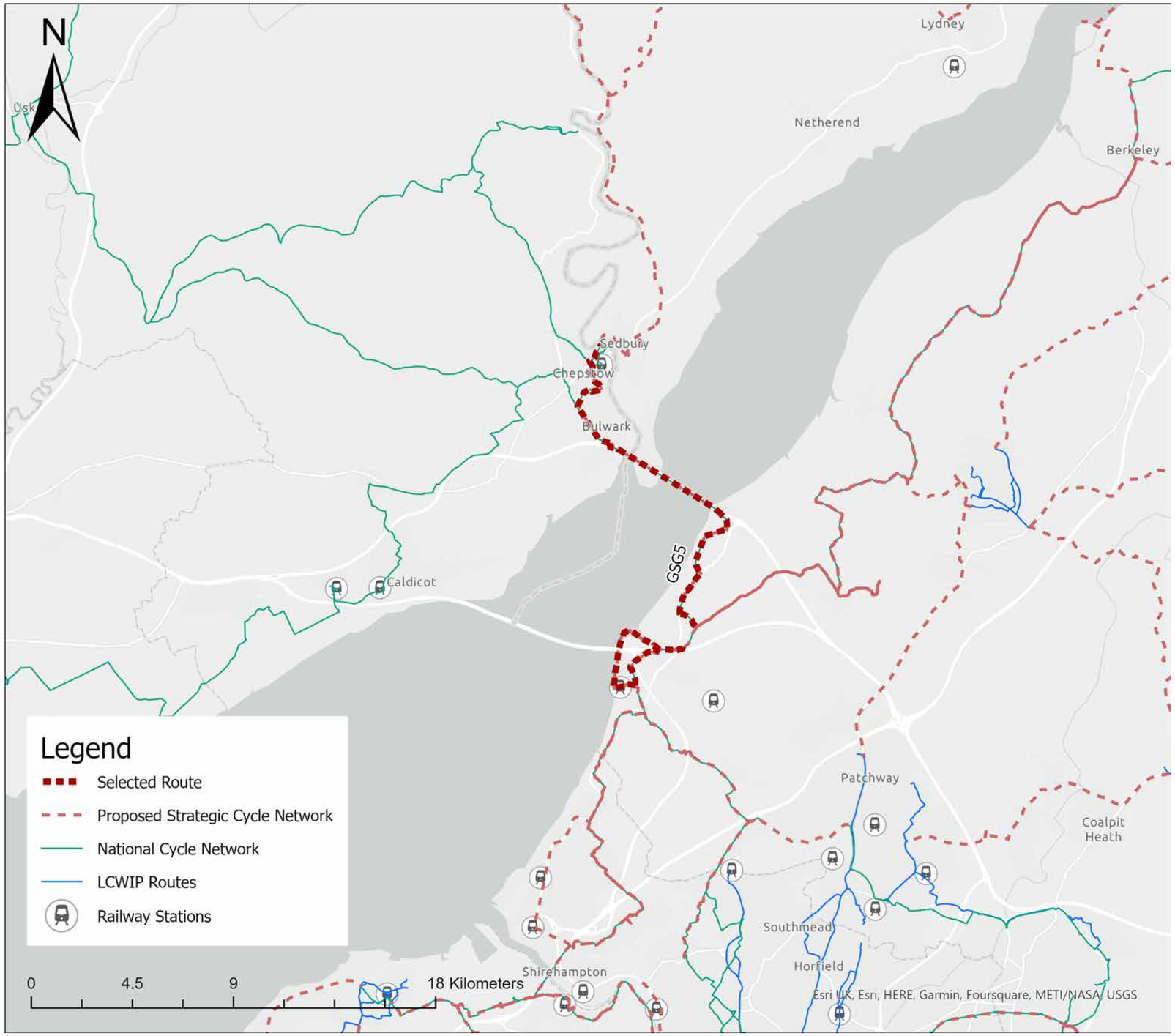
- Route provides an important connection between Sedbury and the key employment areas around Severn Beach and Avonmouth
- The route connects to the following destinations:
  - Chepstow Town Centre
  - Beaufort Park Retail Park
  - Newhouse Farm Industrial Estate
- The route passes through Chepstow which is an important commuter town for people working in the Avonmouth and Bristol area. Due to high house prices in and around Bristol, many people live in the Chepstow and Sedbury area and commute across the Severn.
- Approximately 17km in length
- The route facilitates access to both Chepstow and Severn Beach station
- The route currently comprises a mix of on-road and traffic free provision
- The route follows NCN Route 4 for most of it's length

Opportunities on the Route

- Some of the route already comprises traffic free provision including the M48 Severn Bridge

Constraints on the Route

- Sedbury is located between the River Wye and the River Severn so it is relatively isolated from the rest of the Western Gateway Area. The route must pass through Monmouthshire (Wales) and cross the River Severn to then connect with South Gloucestershire
- There are some topographical challenges to overcome in Cheptstow with steep hills on the route
- Around the M48 there are some busy roads and junctions to cross



Route 3: GSG5 Sedbury to Severn Beach

Install a controlled crossing over Conway Drive

Install a controlled crossing over the A403

Widen the existing shared use path to 3m and provide a buffer between path and road

Legend

Proposed Interventions

Controlled crossing

Mixed Traffic

Segregated

Shared Use

Other Routes and Key Destinations

Proposed Strategic Cycle Routes

National Cycle Network

Schools

Railway Stations

0 1.25 2.5 5 Kilometers

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Route 4: BANES_W1 Bath to Corsham

Route Description

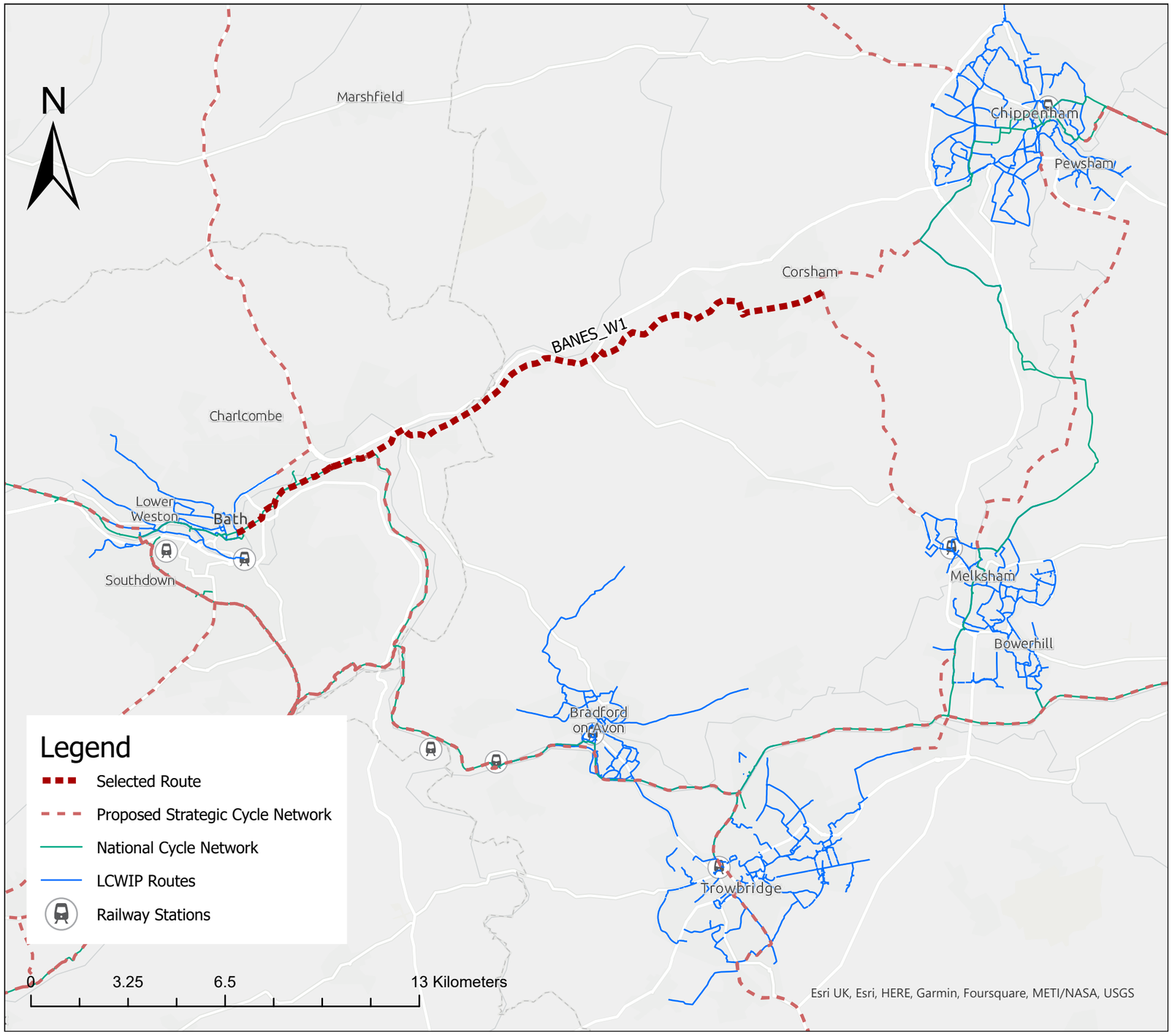
- Route connects Northgate Street in Bath Pound Pill in Corsham
- Approximately 15.2 km in length
- Key destinations along the alignment:
  - Pulteney Bridge
  - The Holburne Museum
  - Bathampton Primary School
  - Avonvale Rugby Football Club
  - Bathford Cricket Club
  - Box Church of England Primary School
  - Ministry of Defence Corsham
- No cycle infrastructure along the route.
- It connects to the following NCN Routes:
  - Route 254
  - Route 4

Opportunities on the Route

- Numerous PROW along the route that could provide a route alternative for the A4 sections
- 2.2 km of route off road along the Kennet and Avon Canal
- Flat area with few hills/gradients

Constraints on the Route

- Route crosses Cotswolds AONB
- Busy roads with limited space for cycle infrastructure on A4 route sections.
- Level difference between A4 and Mill Lane (Photo)



Route 4: BANES_W1 Bath to Corsham

N

Install contraflow cycle lane

Consider replacing bridge for a step free bridge

Improve surface along the river path

Widen path along the river path

0 1.25 2.5 5 Kilometers

Legend

Proposed Interventions

- Contraflow lane
- Controlled crossing
- Improve surface
- Step-free link
- Widen path
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

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Route 5: BANES6 Bath to Midsomer Norton

Route Description

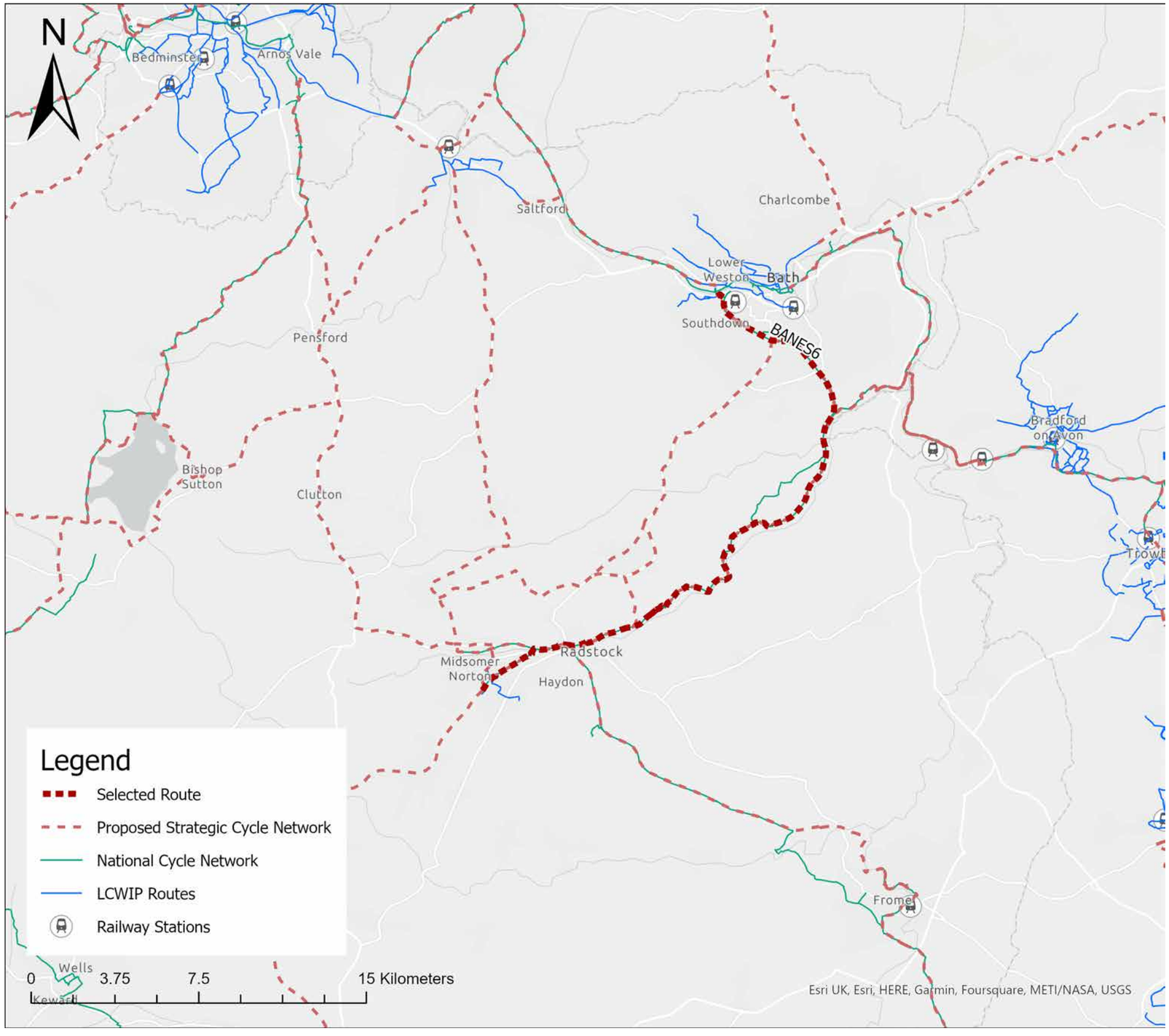
- Route represents a significant north to south routes across Bath and North East Somerset connecting Bath to Midsomer Norton via Radstock
- It follows NCN 24 for it's full length which includes the Two Tunnels Greenway
- The route connects to the Bristol and Bath Railway Path (NCN 4) at it's northern end
- Most of the route comprises existing traffic free provision in the form of a greenway with the exception of a section between Wellow and Foxcote which is mixed traffic
- Approximately 9.5km in length
- The route passes close to the Fox Hill, Moorlands and Twerton areas of Bath which are some of the most deprived parts of the city
- Much of the route along the A4174 comprises existing shared use provision but it's width and surface require improvement. Moreover, barriers on the route prevent access for some users

Opportunities on the Route

- This is an important leisure route for the area
- It provides a connection between town of the largest urban centres in the district with many residents of Midsomer Norton and Radstock travelling to Bath for work

Constraints on the Route

- There are limited opportunities for users to join and leave the route
- Space is constrained on the on-road sections of the route meaning segregation will be difficult and quiet way treatment may be required



Route 5: BANES6 Bath to Midsomer Norton

Install quietway treatment through Wellow

Upgrade existing crossing to be more accessible. Remove pig pen barriers

Legend

Proposed Interventions

- Controlled crossing
- Step-free link
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

0 1.25 2.5 5 Kilometers

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Route 6: D8 Yeovil to Sherborne

Route Description

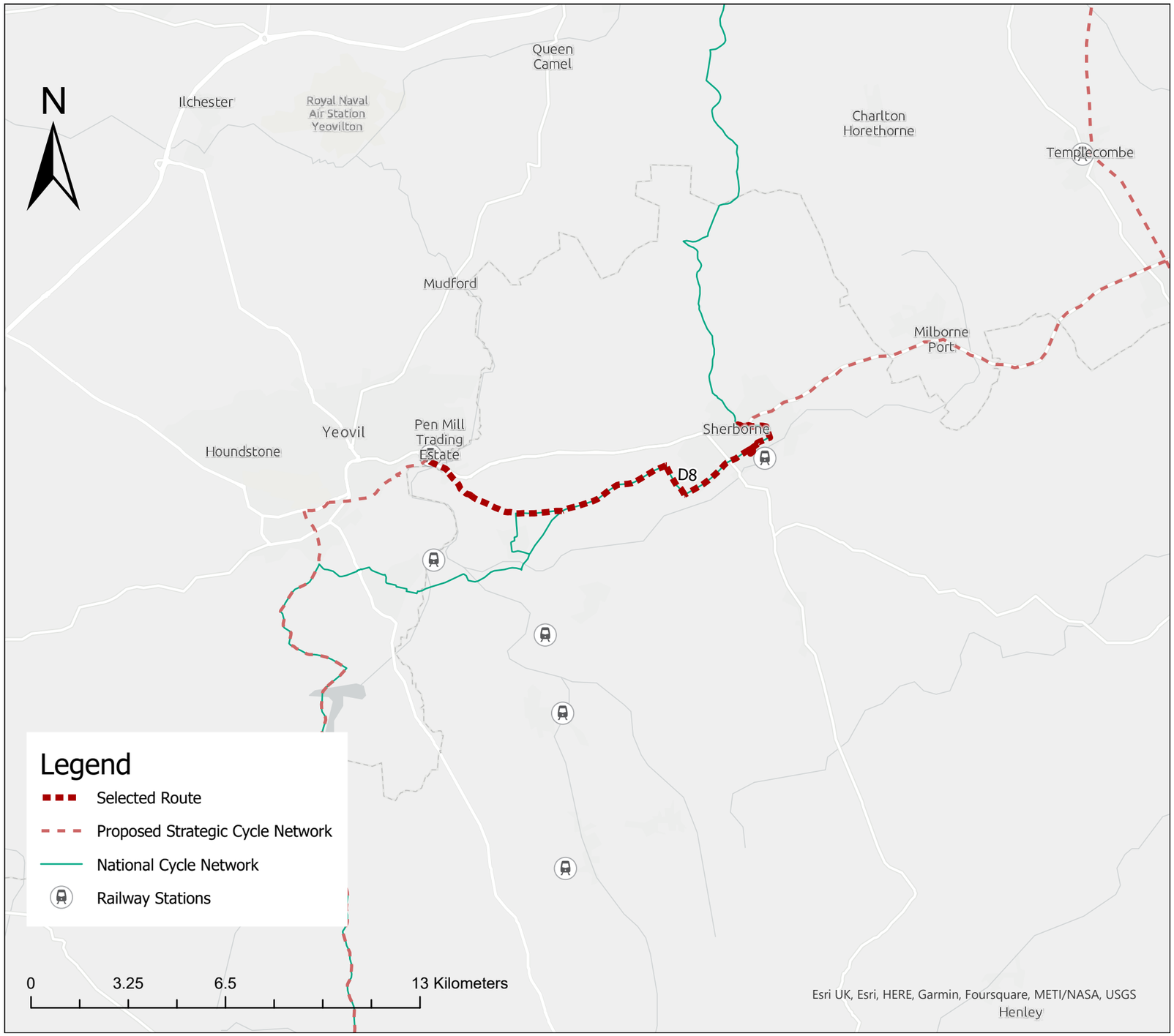
- Route runs from Yeovil (Sherborne Rd) to Sherborne (Newell)
- 9.79 km Length
- Key destinations along the alignment:
  - The Peel Centre
  - Sherborne Abbey Primary School
  - Sherborne Cemetery
  - Sherborne Preparatory School
  - Sherborne School
  - Sherborne Museum
  - Yeatman Hospital
  - Sherborne International
- No cycle infrastructure along the route with the exception of a few cycle gates on Lenthay rd.
- It connects to the following NCN Routes:
  - Route 30
  - Route 26

Opportunities on the Route

- Underdown Hollow and Bradford Rd parallel to A30 road meaning that could be filtered to reduce motor traffic flow.
- Flat area with few hills/gradients

Constraints on the Route

- Width constraint on Cheap Rd and Trendle Street in Sherborne only allows one way traffic creating deviation for people on cycles.



Route 6: D8 Yeovil to Sherborne

N

Install segregated cycle track on A30

Widen path along the path

Mixed traffic use. Install advance stop line

Improve surface along the path

Legend

Proposed Interventions

- Improve surface
- Install advance stop line
- Point closure / modal filter
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

0 0.75 1.5 3 Kilometers

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Route 7: BANES_B1 Radstock to Bristol

Route Description

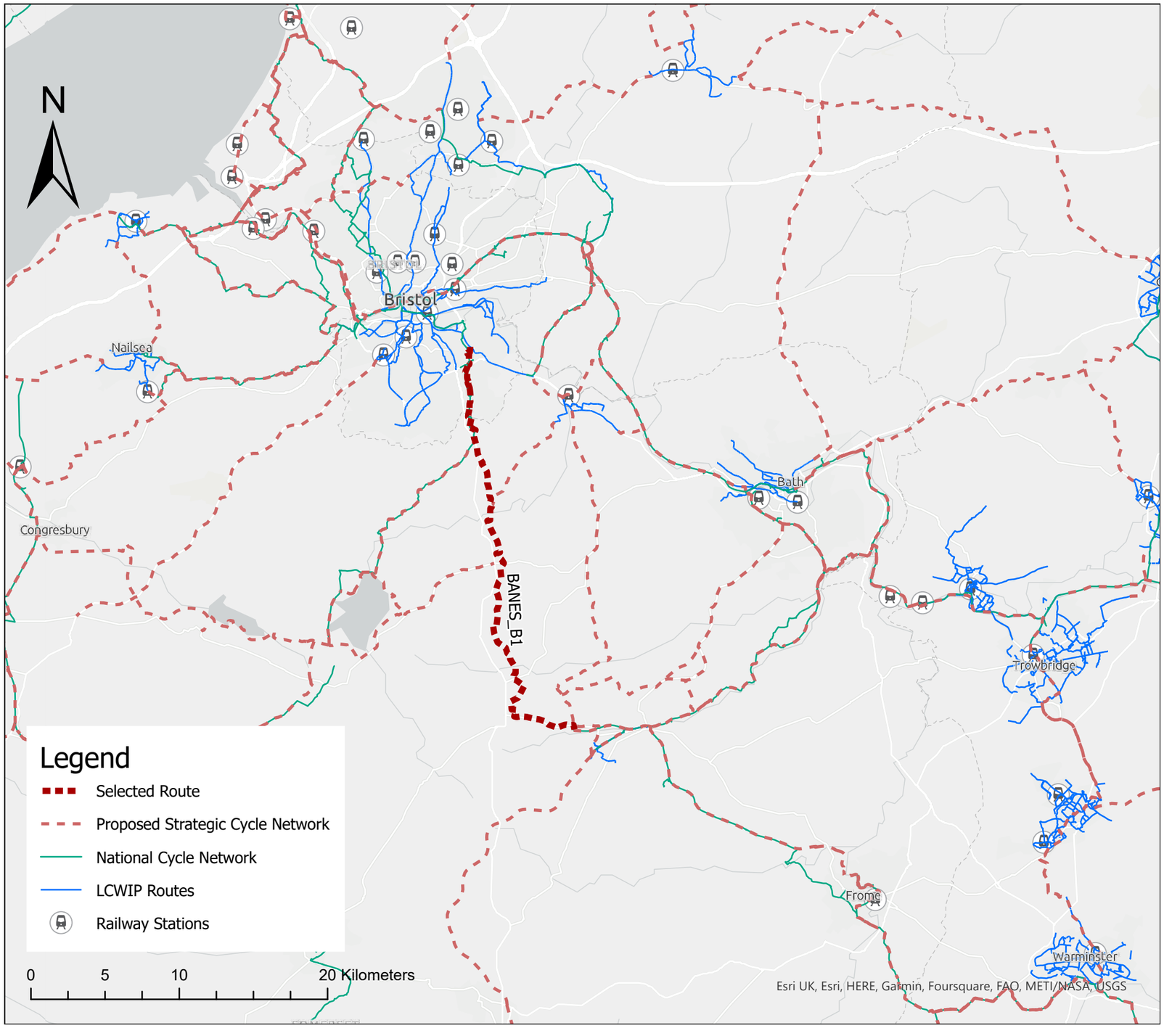
- Route runs from Radstock (Norton Radstock Greenway) to Bristol (Bath Rd)
- 20.76 km Length
- Key destinations along the alignment:
  - Farrington Gurney Church of England Primary School
  - Cameley CEVC Primary School
  - Clutton Primary School
  - Clutton Football Club
  - Pensford Primary School
  - Imperial Sports Ground
  - West Town Lane Academy
  - Callington Road Hospital
- No cycle infrastructure along the route
- It connects to the following NCN Routes:
  - Route 410
  - Route 3

Opportunities on the Route

- 4.4 km of the route are part of the NCN Route 3
- Flat area with few hills/gradients

Constraints on the Route

- A37 busy road and width constraint with limited space for cycle infrastructure.



Route 7: BANES_B1 Radstock to Bristol

N

Potential to use verge to install cycle track

Install segregated shared use path on PROW

Proposed shared use path

Proposed mixed traffic use

Proposed mixed traffic use

0 2 4 8 Kilometers

Legend

Proposed Interventions

Step-free link

Mixed Traffic

Segregated

Shared Use

Other Routes and Key Destinations

Proposed Strategic Cycle Network

LCWIP Routes

National Cycle Network

Hospitals

Schools

Railway Stations

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Route 8: SGB1 Coombe Dingle to Cribbs Causeway

Route Description

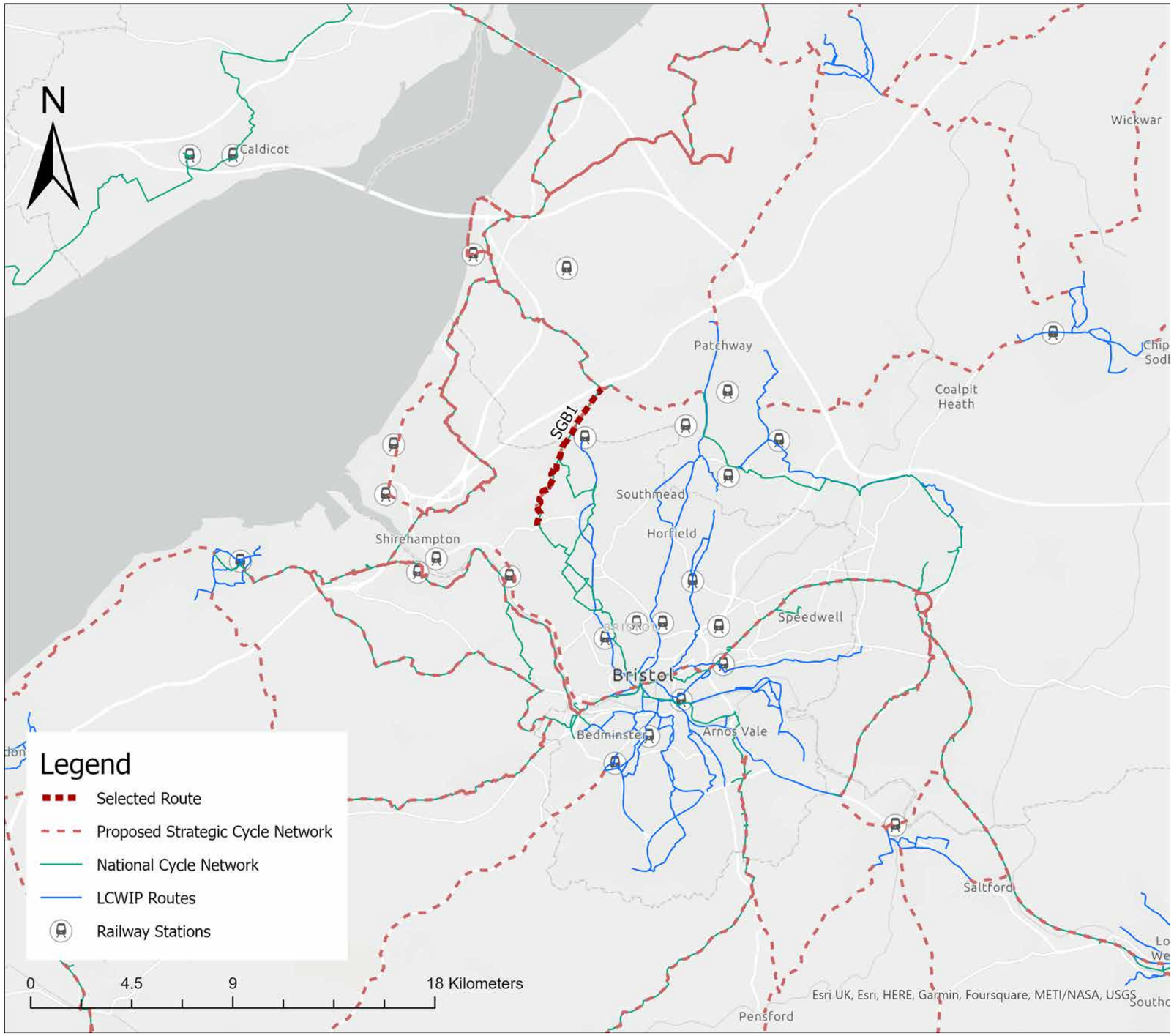
- Route connects the residential suburb of Coombe Dingle and it's neighbouring areas of Sea Mills and Stoke Bishop with Cribbs Causeway via Henbury
- The route connects to the following destinations:
  - Blaise Castle Estate
  - Henbury Leisure Centre
  - Blaise High School
  - Cribbs Causeway
- 4.7km in length
- Route serves a leisure function as well as utility
- The route follows NCN 4 for it's full length
- Comprises part of EuroVelo 1 and 2 long distance touring routes

Opportunities on the Route

- Opportunity to provide a parallel route option via Westbury on Trym High Street
- Much of the route already provides traffic free provision, albeit poor quality in places

Constraints on the Route

- The path through Blaise Estate is narrow and there may be limited scope for widening due to ecological and heritage constraints
- Limited space for segregation on B4055. May require removal of on-street parking
- Railway creates severance between Henbury and Cribbs Causeway. New bridge may be required for cycles as there is limited space on the B4055 Station Rd



Route 8: SGB1 Coombe Dingle to Cribbs Causeway

No space for segregation on Station Rd railway bridge

Widen the existing shared use path to 3m and provide a buffer between path and road

Install a new pedestrian and cycle bridge over railway

Install segregated provision on Station Road

Widen and resurface path through Blaise Estate

Legend

Proposed Interventions

- Bypass for cycling
- Cycle parking
- Junction improvement
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools

0 0.5 1 2 Kilometers

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Route 9: NSS1 Weston-super-Mare to Highbridge

Route Description

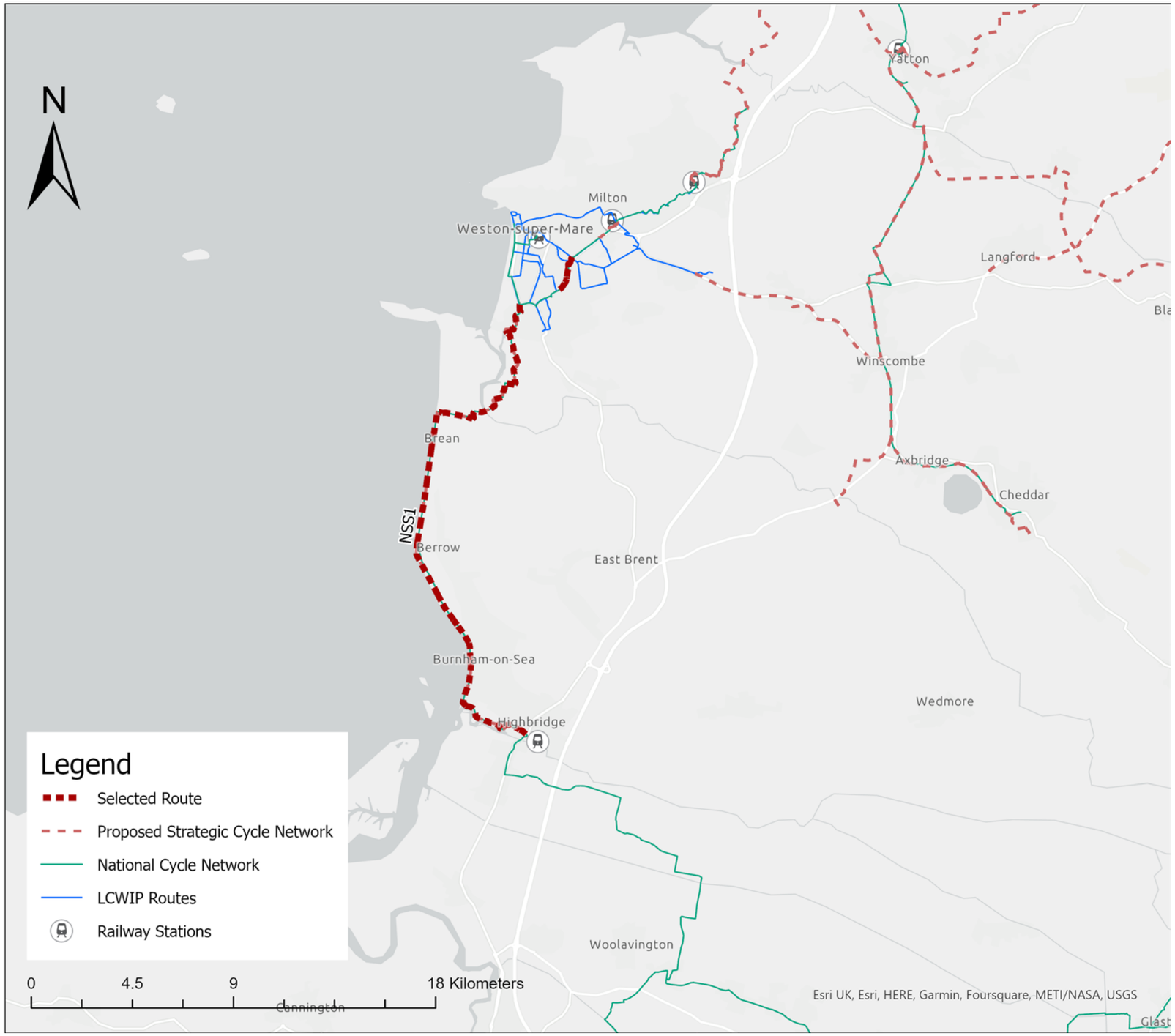
- Route follows the west coast between Weston-super-Mare and Highbridge via Burnham-on-Sea
- 23km in length
- The route would provide links to the following destinations:
  - Weston-super-Mare town centre
  - Gallagher Retail Park
  - Windwhistle Primary School
  - Broadoak Academy
  - Brean caravan sites and holiday parks
- The route also passes close to Weston General Hospital and Highbridge and Burnham Station
- Follows Route 33 of the NCN
- The surface of the route may exlude some users

Opportunities on the Route

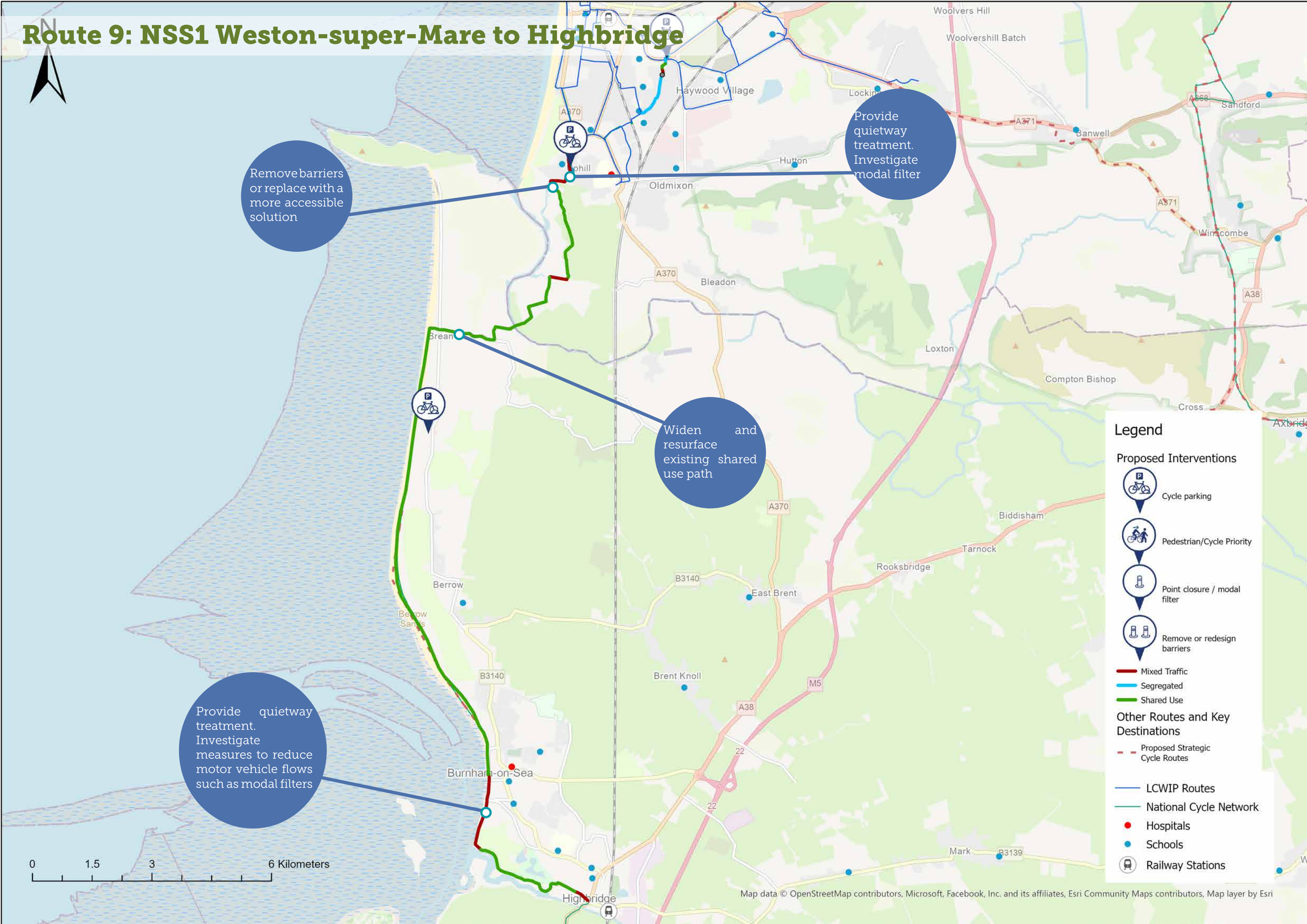
- There are high flows of people commuting between Burnham and Highbridge, and into Weston-super-Mare for work and other major employers
- The route is very flat with minimal change in elevation
- The Highbridge to Weston-super-Mare and Weston-super-Mare to Clevedon routes can be promoted as part of a 'scenic' Land's End to John O'Groats route

Constraints on the Route

- The route follows the coastline and may not be usable due to flooding at certain time of year or during storms
- Some section are very constrained with limited opportunity for segregation and traffic flows may need to be reduced to safely accommodate cycling in the carriageway



Route 9: NSS1 Weston-super-Mare to Highbridge



Route 10: GSG3 Wotton-under-Edge to Thornbury

Route Description

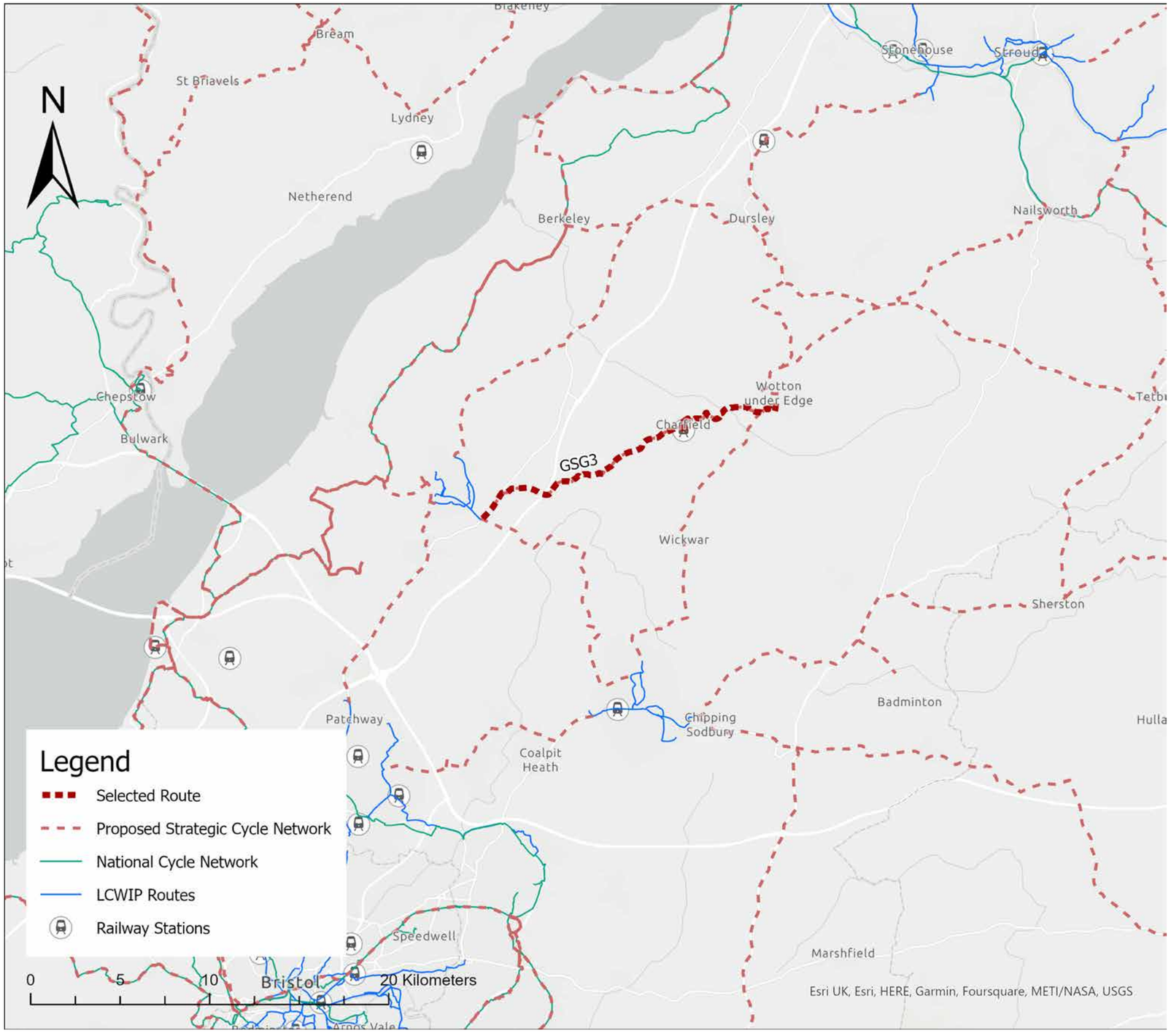
- Route connects Wotton-under-Edge in Gloucestershire with Thornbury in South Gloucestershire via Charfield
- The route fills part of an existing gap in the NCN
- 13km in length
- The route would provide links to the following destinations:
  - Wotton-under-Edge town centre
  - Proposed new station at Charfield
  - Two Renishaw employment sites
  - Katherine Lady Berkeley School
  - Cromhall Quarry Diving and Swimming Centre
  - Dobbies Garden Centre

Opportunities on the Route

- The planned section between Wotton-under-Edge and Charfield is being developed by Sustrans and a local community group
- Lots of support from the local community and some of the landowners

Constraints on the Route

- There are some steep gradients on the route
- There is limited space for segregated provision through Charfield and traffic flows and speeds mean cycling in the carriageway is not an option
- The M5 motorway creates significant severance with limited opportunities to cross and improvements to existing crossing points will be expensive



Route 10: GSG3 Wotton-under-Edge to Thornbury

Install segregated cycle track in verge on A38

Install signalised crossing at Toll House Junction

Install signalised on B4058 through Charfield. Space is very constrained

Install segregated cycle track in verge on B4058 Bristol Road

Legend

Proposed Interventions

- Controlled crossing
- Cycle parking
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools

0 1 2 4 Kilometers

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Route 11: NS10 Portishead to Pill

Route Description

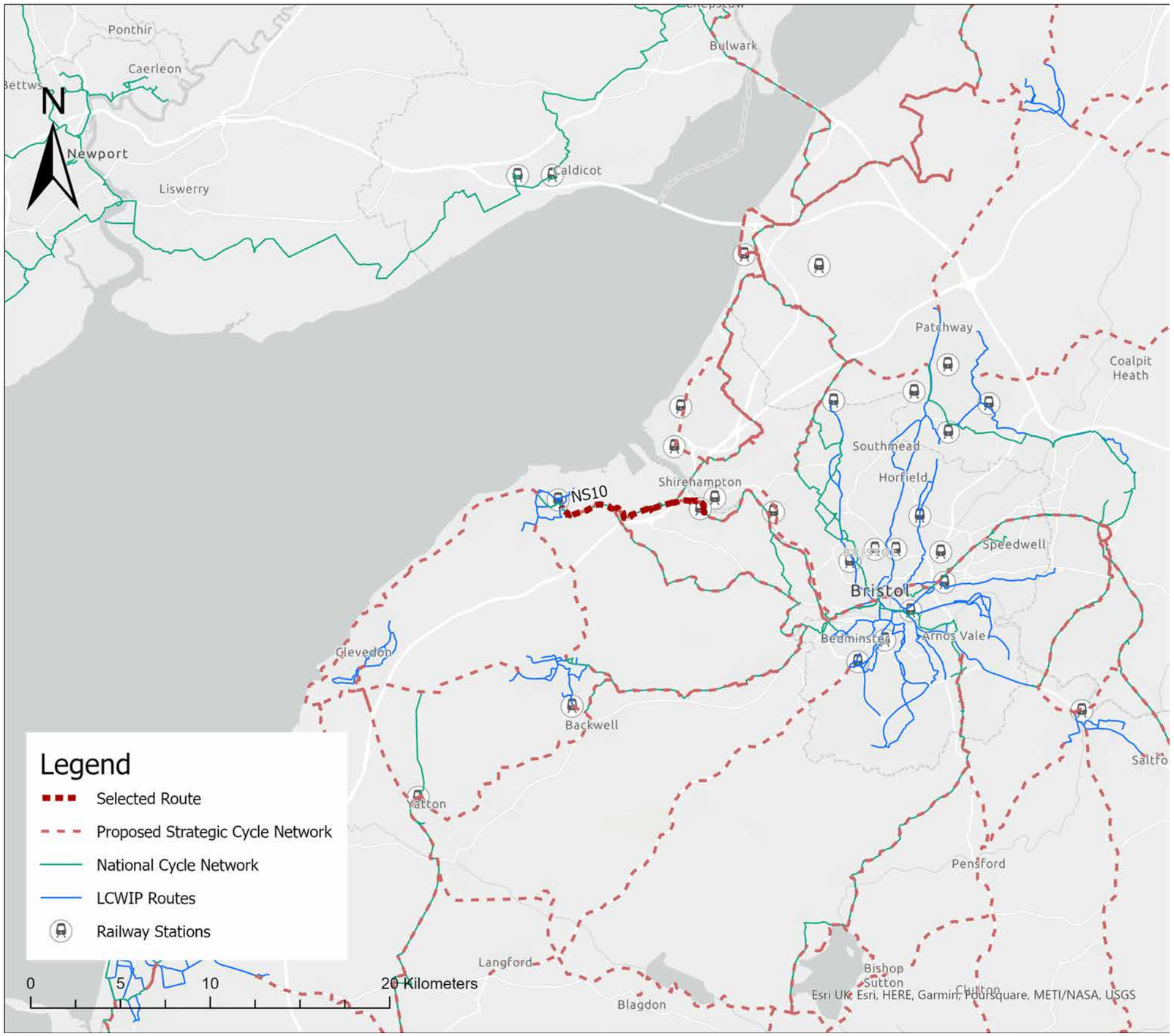
- Route connects the centre of Pill with Portishead within North Somerset
- Approximately 6.5km in length
- Route follows the alignment of NCN Route 26 which comprises a mix of on-road and traffic free provision
- The route connects to NCN Route 334 north of Portbury
- The route facilitates access to the following destinations:
  - Pill village centre
  - Royal Portbury Docks
  - Portbury Wharf Nature Reserve
  - Portishead Ecology Park
- The route would also provide access to the proposed Pill railway station as part of the reopened Portishead Branch Line

Opportunities on the Route

- Much of the route already comprises traffic free provision
- The route provides acess across the M5 motorway which causes significant severance between Pill and Portishead

Constraints on the Route

- Some users may feel unsafe using parts of route in hours of darkness due to the surrounding land uses and lack of natural surveillance



Route 11: NS10 Portishead to Pill

Install pedestrian and cycle priority at crossings in residential areas

Install quietway treatment on Sheepway. Investigate installing a bus gate

Improve wayfinding and remove or replace restrictive barriers

Legend

Proposed Interventions

- Cycle parking
- Pedestrian/Cycle Priority
- Remove or redesign barriers
- Mixed Traffic
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- LCWIP Routes
- National Cycle Network
- Schools
- Railway Stations

0 0.5 1 2 Kilometers

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Route 12: SGB2 Severn Beach to Shirehampton

Route Description

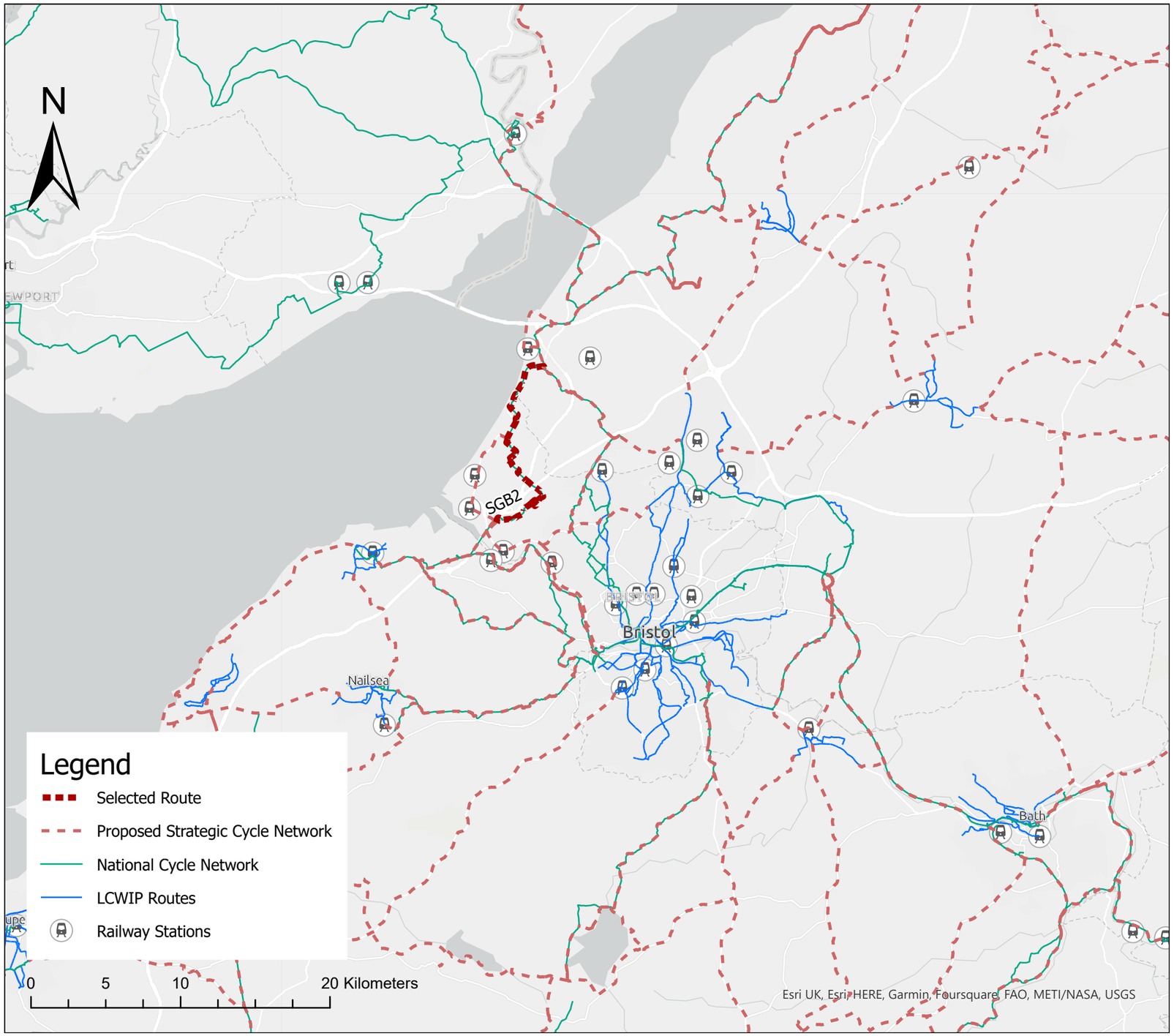
- Route runs from Severn Beach (Govier Way) to Shirehampton (Avonmouth Road)
- 10.71 km Length
- Key destinations along the alignment:
  - Industrial area
  - St Bede's Catholic College
  - Bristol Gateway School
  - Ridingleaze commercial road
  - Nova Primary School
- From Severn Beach to Lawrence Weston route runs along industrial areas, not much pedestrian activity. No cycle infrastructure along the route.
- It connects to the following NCN Routes:
  - Route 41
  - Route 4

Opportunities on the Route

- Most of the route is part of the NCN Route 41
- Flat area with few hills/gradients, with links to the seafront

Constraints on the Route

- There is a lack of natural surveillance on parts of the route and it may feel unsafe for some users due to the surrounding industrial uses



Route 12: SGB2 Severn Beach to Shirehampton

N

Pedestrian and cycle priority in roundabout

Widen existing shared path along A403

Pedestrian and cycle priority in roundabout

Install controlled crossing on Kings Weston Lane

Install controlled crossing on Kings Weston Lane

0 0.75 1.5 3 Kilometers

Legend

Proposed Interventions

- Controlled crossing
- Pedestrian/Cycle Priority
- Widen path
- Mixed Traffic
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

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Route 13: SW2 Swindon to Marlborough

Route Description

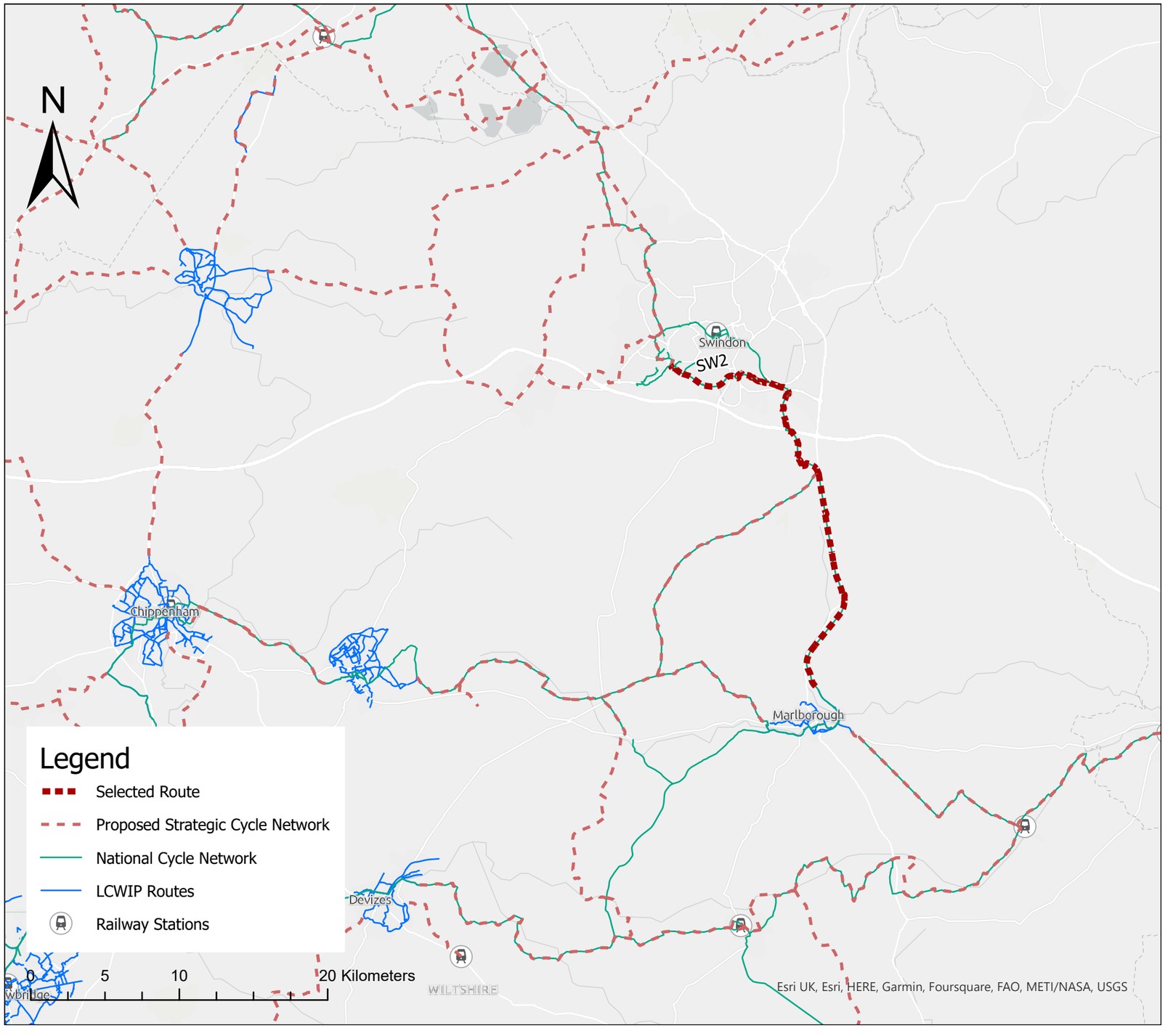
- Route connects Mannington Retail Park in Swindon, Ogbourne St George, Chiseldon and the Chiseldon & Marlborough Railway Path in Marlborough
- Approximately 20.9 km in length
- Key destinations along the route:
  - Mannington Retail Park
  - Lethbridge Primary School
  - Lawn Primary
  - Chiseldon Primary & Nursery School
  - Ogbourne CofE Primary School
- Much of the route comprises existing shared use provision but its width and surface require improvement
- It connects to the following NCN Routes:
  - Route 45
  - Route 482
  - Route 254

Opportunities on the Route

- Much of the route is part of the NCN Route 45 and 482
- Flat area with few hills/gradients
- Much of the route is traffic free through green natural areas

Constraints on the Route

- Much of the route is in the North Wessex Downs AONB
-



Route 13: SW2 Swindon to Marlborough

Pedestrian and cycle priority.

Pedestrian and cycle priority in roundabout

Remove or redesign barrier to make the path accessible for everyone

Install controlled crossing on The Ridgeway

Controlled crossing in Copse Drove and Bytham Road

Install shared use path. Improve surface and widen path.

Legend

Proposed Interventions

- Controlled crossing
- Pedestrian/Cycle Priority
- Remove or redesign barriers
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools

0 1.5 3 6 Kilometers

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Route 14: BANES_B3 Bristol to Bath

Route Description

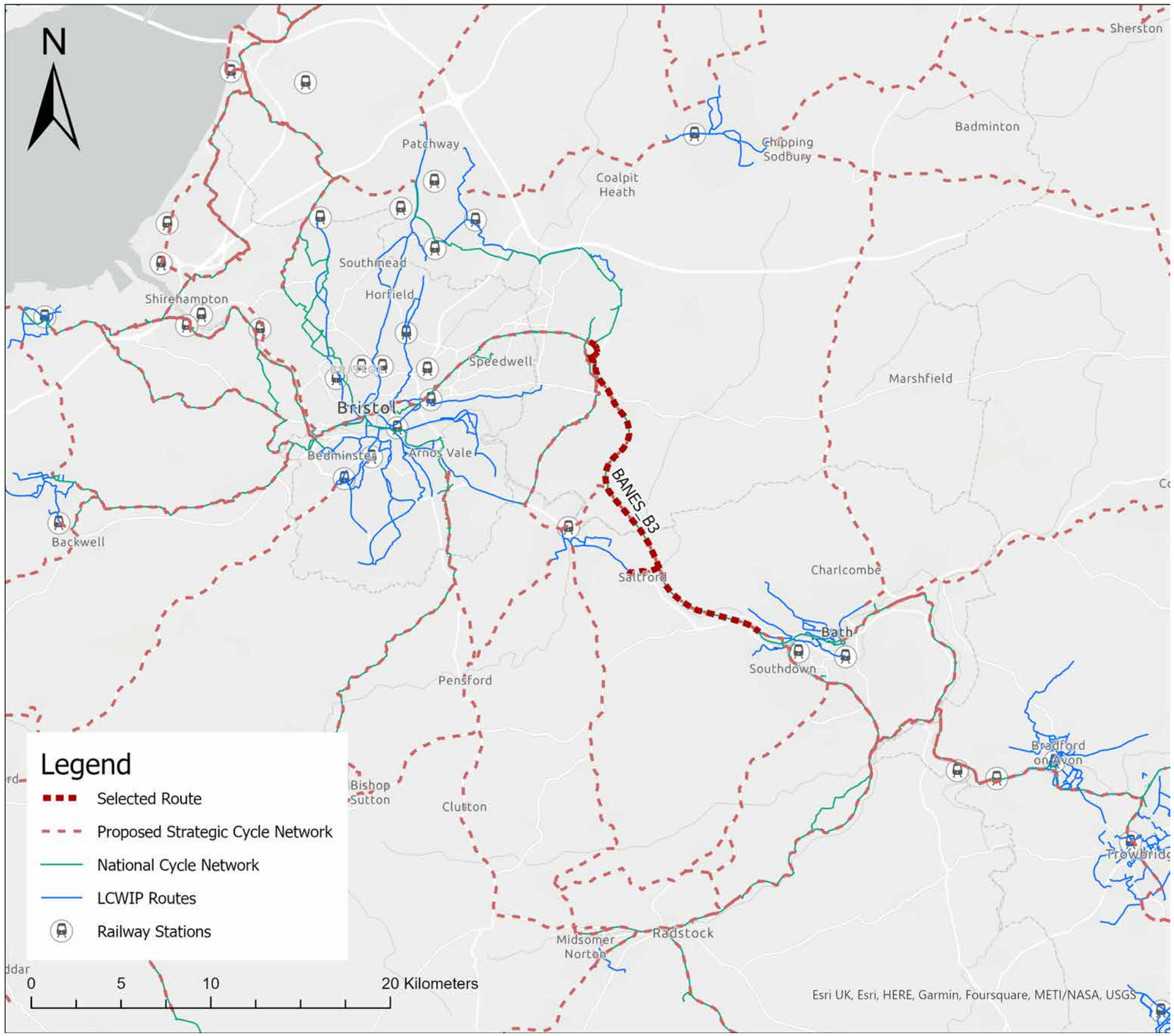
- Route connects Bristol and Bath which are two of the major cities in the STB area
- It runs between Mangotsfield Station in Bristol to Brassmill Lane in Bath and connects to LCWIP routes at either end
- Approximately 14.5km
- The route follows the Bristol and Bath Railway Path (NCN Route 4) which is an existing shared use path for its full length
- The route connects to the following destinations:
  - Warmley Forest Park
  - Caxton Business Park
  - Redfield Edge Primary School
  - Sir Bernard Lovell Sports Centre
  - St Anne's Primary School
  - Avon Valley Railway (Bitton Station)
  - Brassmill Enterprise Centre
- The route is a key local, regional and national route for leisure and tourism and comprises part of the EuroVelo 2 long distance touring route

Opportunities on the Route

- The route is already established and comprises traffic free provision for its full length
- The route is very flat with few changes in elevation

Constraints on the Route

- There are limited opportunities to leave and join the route along its alignment
- There is limited space for widening in places and widening may be required due to high user flows
- It may be difficult to install lighting on the route due to ecological constraints in addition to installation and maintenance costs



Route 14: BANES_B3 Bristol to Bath

Note: The Cycle Design Vehicle is a term used in LTN 1/20 to refer to a composite of the maximum dimensions from a range of cycle typically in use. See Section 5.4 p.40-42 of LTN 1/20. for more details.

Remove or replace bollards to ensure Cycle Design Vehicle can be accommodated

Remove or replace barriers to ensure Cycle Design Vehicle can be accommodated

Remove or replace barriers to ensure Cycle Design Vehicle can be accommodated

Legend

Proposed Interventions

Remove or redesign barriers

Shared Use

Other Routes and Key Destinations

Proposed Strategic Cycle Routes

LCWIP Routes

National Cycle Network

Hospitals

Schools

Railway Stations

0 2.5 5 10 Kilometers

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Route 15: NS7 Clevedon to Winscombe

Route Description

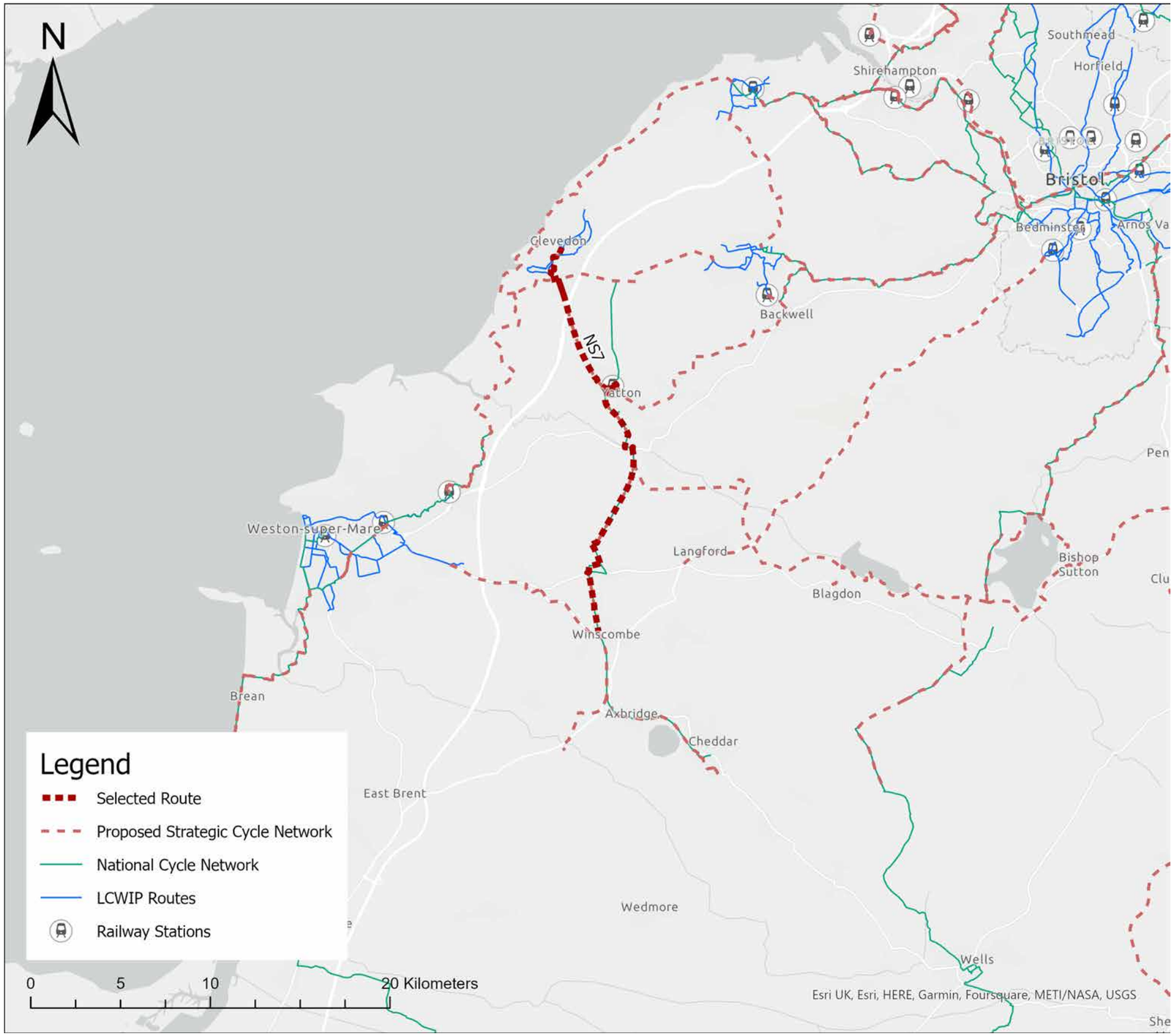
- Route connects Clevedon on the coast with Winscombe to the south
- Approximately 17km in length
- Between Clevedon and Yatton the route would follow a disused railway line and from Yatton
- The route connects to the following destinations:
  - Clevedon town centre, with links to the seafront
  - Kenn Business Park
  - Yatton Station
  - Thatchers Cider
  - St Andrews Primary School
  - Sandford Village
  - Winscombe Village Centre
- The southern half of the route from Yatton follows NCN Route 26 (The Strawberry Line)

Opportunities on the Route

- The majority of the route would follow former railway lines meaning they would be largely traffic free, flat and direct
- The route would provide residents of Clevedon with a safe, traffic free route to Yatton Station which is it's nearest railway station
- The route would cross the M5 motorway which is a major barrier to movement in the area

Constraints on the Route

- The former railway line between Clevedon and Yatton is likely to be within multiple different ownerships
- There may be flooding implications due to the low lying areas and numerous watercourses



Route 15: NS7 Clevedon to Winscombe

Resurfacing and quietway treatment

Install segregated cycle tracks and a controlled crossing on Southern Way

Install segregation for cycles on railway bridge

Resurface Rust Lane and install quietway treatment

Install 3m wide shared use path on alignment of former railway

Legend

Proposed Interventions

Controlled crossing

Cycle parking

Other

Point closure / modal filter

Mixed Traffic

Segregated

Shared Use

Other Routes and Key Destinations

Proposed Strategic Cycle Routes

National Cycle Network

Hospitals

Schools

Railway Stations

Route 16: D28 Shaftesbury to Gillingham

Route Description

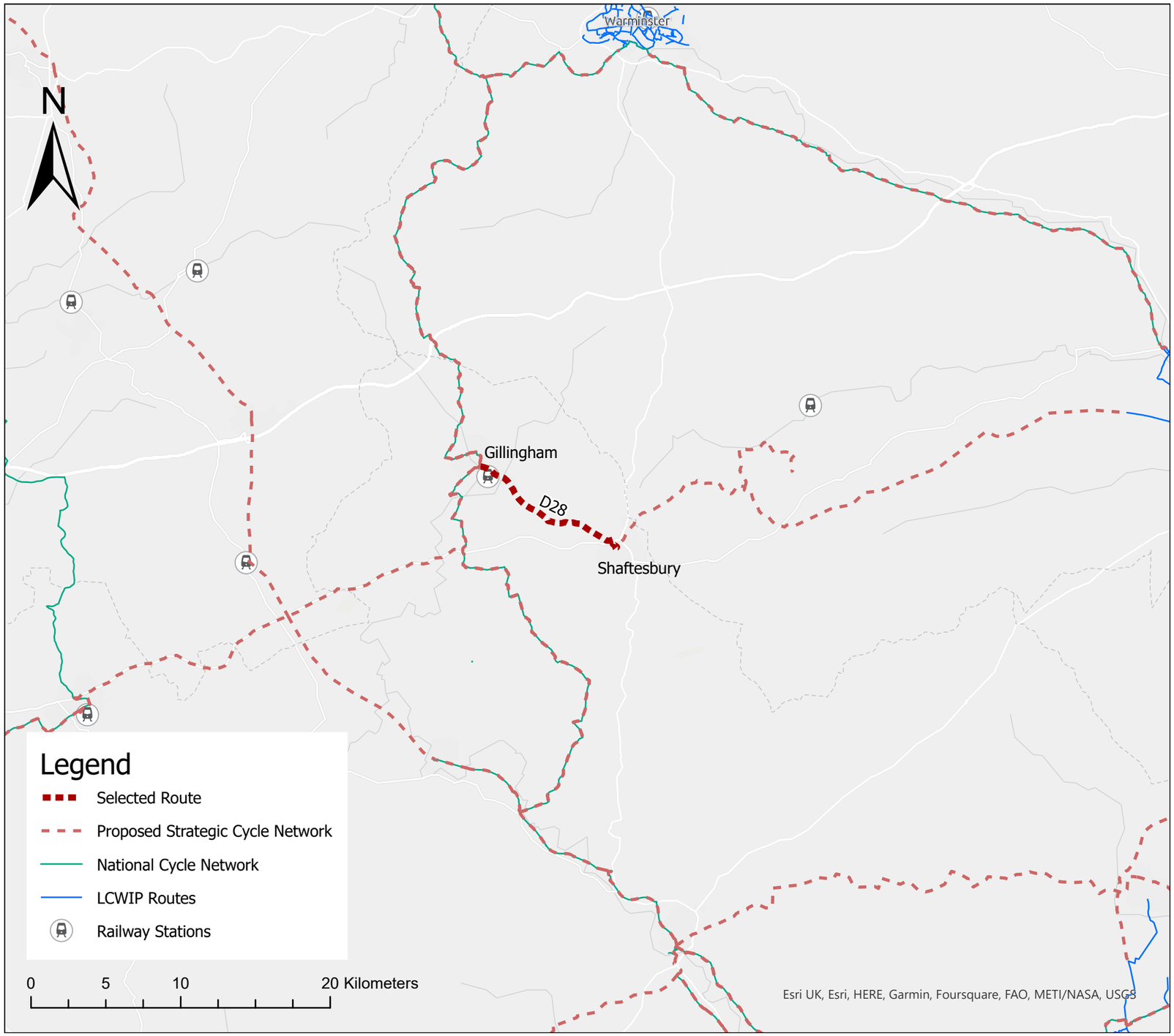
- Route connects the High Street in Shaftesbury, to the High Street in Gillingham
- Approximately 7.3 km in length
- Key destinations along the route:
  - Port Regis Preparatory School
  - Kingsmead Business Park
  - St Mary the Virgin Church of England Primary School
  - Gillingham Railway Station
  - Gillingham School
- No cycle infrastructure along the route with the exception of a few Advance Stop Lines along the B3081 road
- It connects to the following NCN Routes:
  - Route 25
  - Route 253

Opportunities on the Route

- The route covers an important commuting route between Shaftesbury and Gillingham
- Flat area with few hills/gradients

Constraints on the Route

- Much of the route comprises segregated and shared use provision but there is limited space for cycling infrastructure along the B3081 road



Route 16: D28 Shaftesbury to Gillingham

Install cycle stands in available space in front Lidl

Install controlled crossing in roundabout

Pedestrian and cycle priority in roundabout

Opportunity to use verge to install shared path

Install controlled crossing on B3081

Legend

Proposed Interventions

- Controlled crossing
- Cycle parking
- Pedestrian/Cycle Priority
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

0 0.5 1 2 Kilometers

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Route 17: NSB4 Bristol to Churchill

Route Description

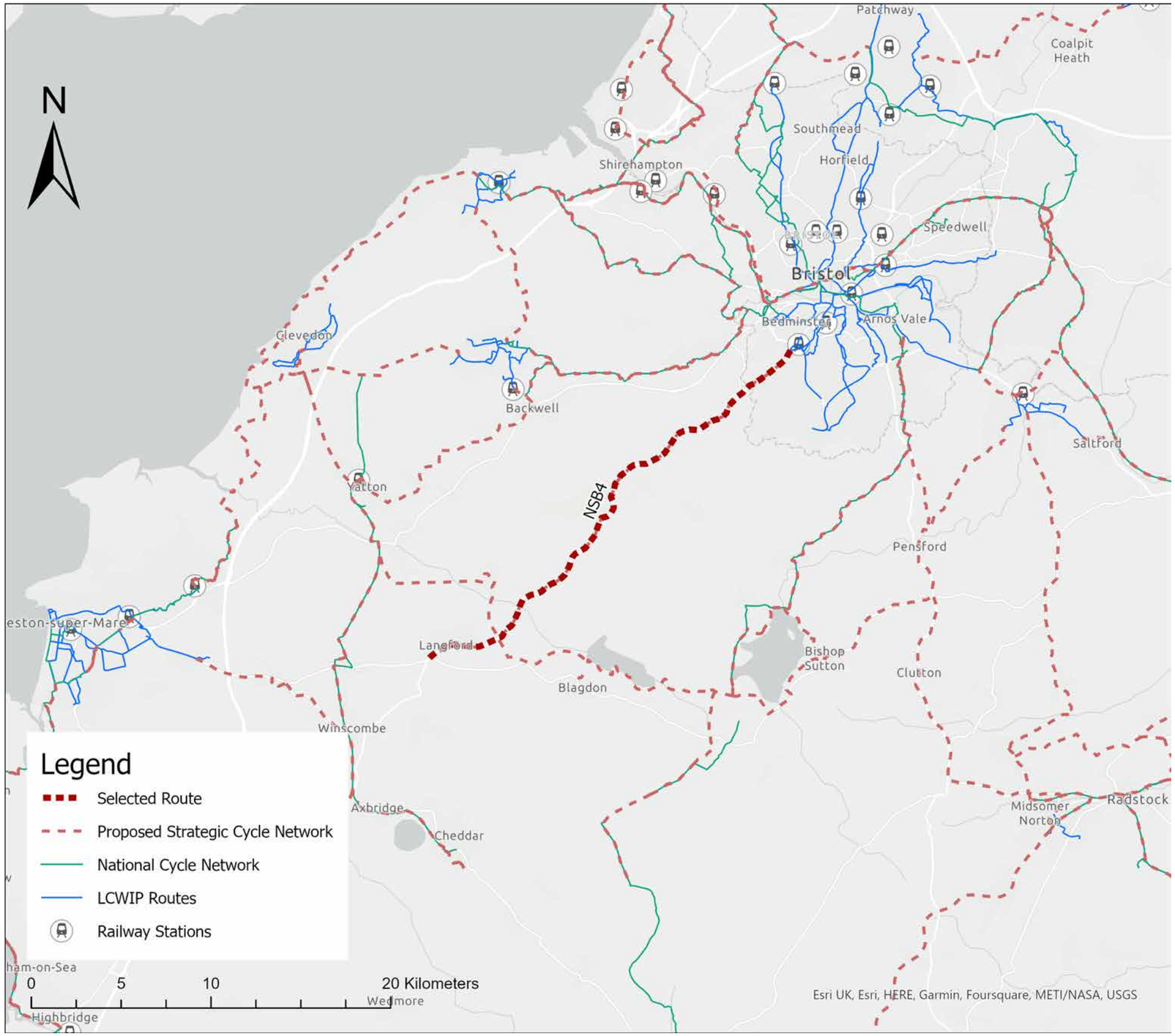
- Route connects the city of Bristol with Churchill in North Somerset via Bristol Airport
- Route follows the alignment of the A38 and represents a gap in the NCN
- Approximately 18km in length
- The route connects to the following destinations:
  - Parson Street Station
  - The Pavilions employment site
  - Bristol Airport
  - Felton Common
  - Langford / Churchill area and new housing
  - University of Bristol Veterinary School
  - Churchill area and proposed new housing developments
- For most of its length, the route could comprise a greenway/ shared use path behind a hedge with some sections of segregated provision beside the carriageway and an on-road quietway section through Lower Langford

Opportunities on the Route

- The route would provide a safe cycle connection between Bristol and Bristol airport which is a major employment and new housing site
- Route is direct, compared to alternatives, but is hilly

Constraints on the Route

- The route would require the use of the edge of fields within private ownership which will take time to negotiate or CPO
- The route will require a number of crossings on the A38 which may be difficult to achieve
- Sections of segregated provision will need a significant horizontal buffer from traffic on the A38 given the speeds and flow of traffic which may be difficult to achieve due to width constraints



Route 17: NSB4 Bristol Churchill

Widen shared use paths on A38 past Barrow Gurney Reservoirs and provide horizontal separation from traffic

Use verge/green space to provide segregated cycle tracks on A38 Bridgwater Road

Widen and improve shared use paths on A38 past Bristol Airport and provide horizontal separation from traffic

Install segregated cycle tracks on A38 through Langford

Implement quietway treatment through Lower Langford. Investigate providing modal filter

Legend

Proposed Interventions

- Controlled crossing
- Cycle parking
- Pedestrian/Cycle Priority
- Uncontrolled crossing
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

0 1.25 2.5 5 Kilometers

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Route 18: NSB3 Long Ashton to Bristol

Route Description

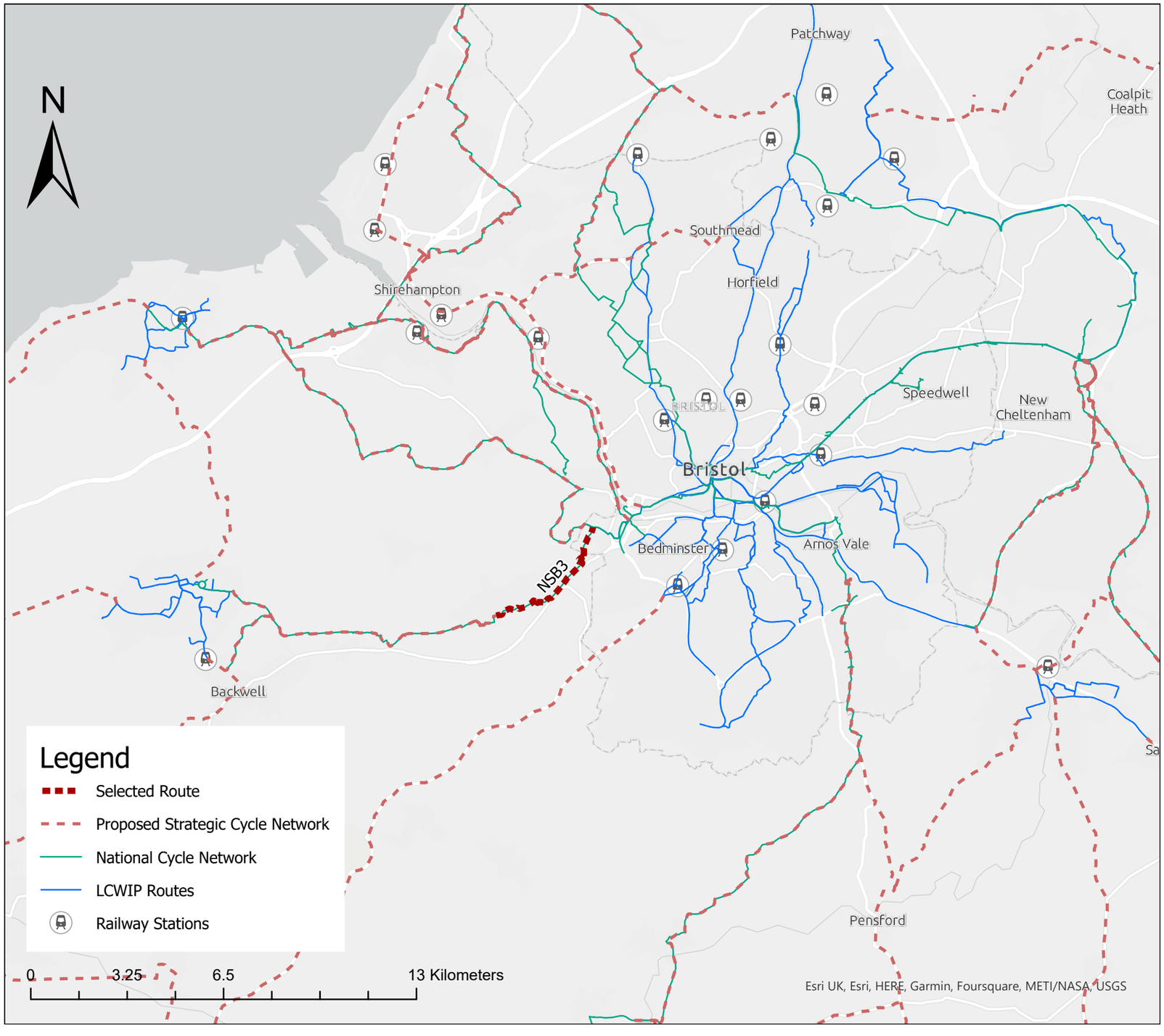
- Route connects Birdwell Primary School in Long Ashton to the UWE Bower Ashton City Campus in Bristol
- Approximately 3.3 km in length
- Key destinations along the route:
  - Birdwell Primary School
  - Northleaze Church of England Primary School
  - Ashton Park School
  - Bower Ashton - City Campus - UWE Bristol
  - Long Ashton P&R site and Metrobus cycle route
- Much of the route comprises existing shared use provision but its width and surface require improvement in some sections
- It connects to the following NCN Routes:
  - Route 41
  - Route 334

Opportunities on the Route

- Much of the route comprises traffic free existing shared use provision
- Flat area with few hills/gradients
- Opportunity for route to connect to Long Ashton Park & Ride site and Metrobus cycle route

Constraints on the Route

- Route in on the edge of the Ashton Court SSSI opposite to UWE
- Route is within the Ashton Court heritage site, which may prevent upgrading the exisiting stone-dust surface



Route 18: NSB3 Long Ashton to Bristol

Install controlled crossing on Yanley Lane

Legend

Proposed Interventions

- Controlled crossing
- Mixed Traffic
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Schools

0 0.23 0.45 0.9 Kilometers

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Route 19: NSB5 Avon Path Pill to Bristol

Route Description

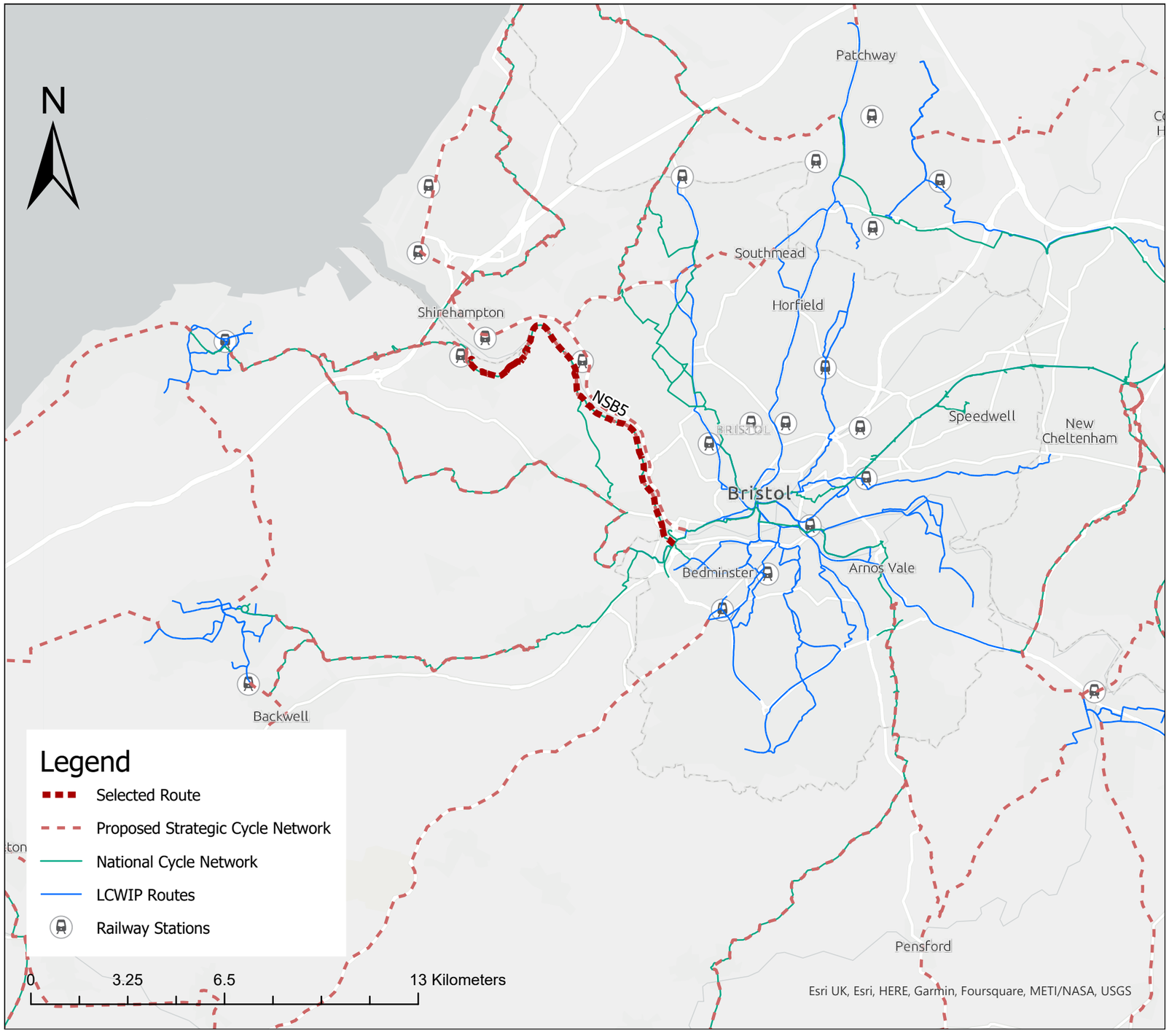
- Route connects Greville Smyth Park next to River Avon to Guided Busway in Bristol.
- Approximately 8.6 km in length
- Key destinations along the route:
  - Eden Office Park
  - Leigh Woods
  - St Katherine's School
  - Ashton Avenue Bridge
- Much of the route comprises existing shared use provision but its width and surface require improvement
- It connects to the following NCN Routes:
  - Route 33
  - Route 41

Opportunities on the Route

- Much of the route comprises traffic free existing shared use provision as part of the NCN route 41
- Scenic route next to the River Avon
- Flat area with few hills/gradients

Constraints on the Route

- Route is within the Avon Gorge SSSI and Avon Gorge Woodlands
- Route on the edge of an Ancient Replanted Woodland Leigh/Oak Wood.
- Path subject to spring tides / rising sea levels.
- Limited access and narrowness of path complicates improvement works.



Route 19: NSB5 Avon Path Pill to Bristol

Widen existing shared path and improve surface

Widen existing shared path and improve surface

Widen existing shared path and improve surface

Legend

Proposed Interventions

Widen path

Mixed Traffic

Shared Use

Other Routes and Key Destinations

Proposed Strategic Cycle Network

LCWIP Routes

National Cycle Network

Hospitals

Schools

Railway Stations

0 0.5 1 2 Kilometers

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Route 20: GW2 Malmesbury to Cirencester

Route Description

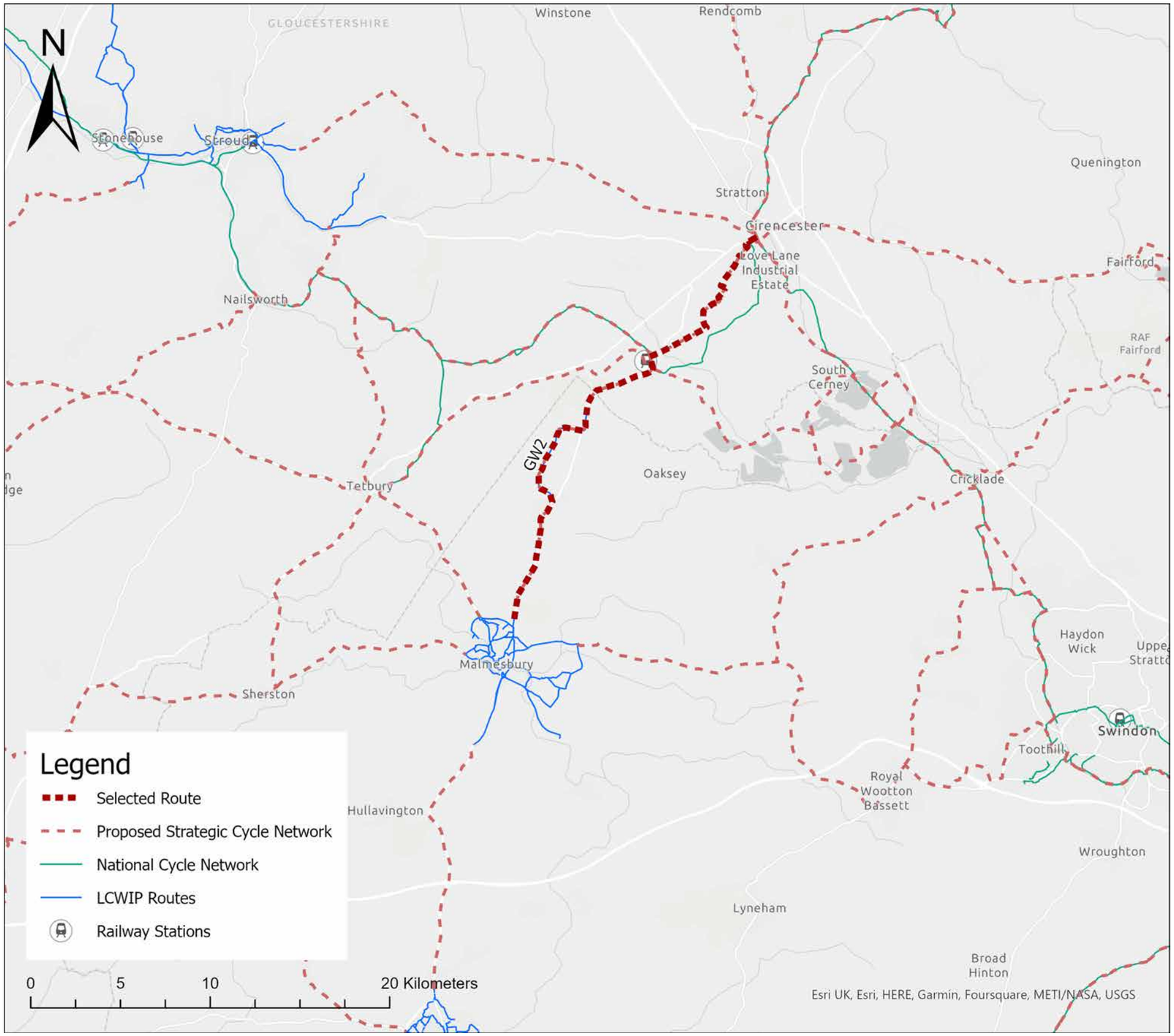
- Route connects Cirencester in Gloucestershire to Malmesbury in Wiltshire via Kemble
- Approximately 19km in length
- The route connects the following destinations:
  - Historic centre of Cirencester
  - Cirencester Amphitheatre
  - Kemble Station
  - Cotswold Airport
  - Kemble Business Park
  - Charlton Business Park
- The section between Kemble and Cirencester would provide a realignment of the existing NCN 45 which is not suitable for most users due to the speed and flows of traffic
- The section between Kemble and Malmesbury is a gap in the NCN

Opportunities on the Route

- Kemble is the closest train station to both Malmesbury and Cirencester but there are no existing safe routes to/from either
- Former railway line and public rights of way network can be utilised to provide a traffic free connection between Kemble and Cirencester
- Attractive route for leisure and tourism as well as having utility credentials

Constraints on the Route

- Requires use of land in private ownership
- The section through Crudwell is very constrained with limited opportunities to provide segregated provision



Route 20: GW2 Malmesbury to Cirencester

Install signalised crossing over A429

Install signalised crossing over A429 to connect to Kemble Business Park

Highway space through Crudwell is constrained but a segregated facility is required

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0 1.75 3.5 7 Kilometers

Legend

Proposed Interventions

- Controlled crossing
- Cycle parking
- Other
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

Route 21: BANES_SG2 Keynsham to Bristol and Bath Railway Path

Route Description

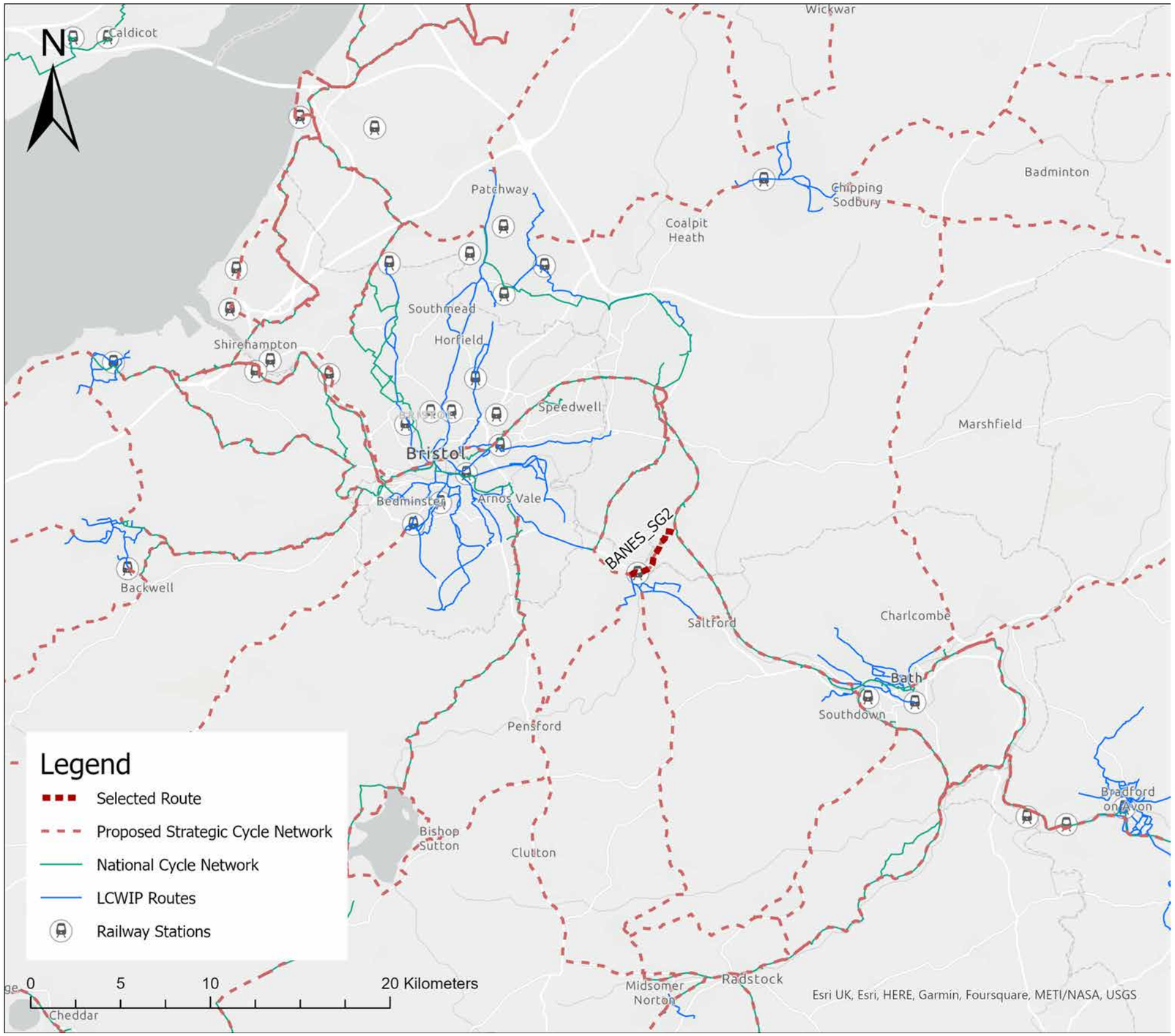
- Route connects Keynsham with the Bristol and Bath Railway Path (NCN4) at Bitton
- Approximately 2.5km in length
- There is an existing shared use path beside the A4175 Keynsham Road but this is substandard in terms of width, surface quality and separation from traffic
- The route connects to the following destinations:
  - Avon Valley Railway (Bitton Station)
  - Jarretts Garden Centre
  - Keynsham Station
  - Keynsham Town Centre
- The route requires a new crossing of the River Avon to the northeast of Keynsham to then follow the alignment of the former Avon and Gloucestershire Railway (Dramway) which is currently designated as a footpath
- There is no existing connection between Keynsham and the NCN

Opportunities on the Route

- Opportunity to use a former railway alignment which is flat and direct
- Would be an attractive route beside the River Avon

Constraints on the Route

- The former railway alignment is within private ownership although it is a PRoW
- There is very limited space for improvement on the A4175 within Keynsham
- The land immediately next to the River Avon is liable to flood during winter



Route 21: Banes_SG2 Keynsham to BBRP

Install segregated facility on A431 Bath Road

Space is constrained on A4175 Station Rd but a segregated facility is required

Install shared path in A4175

Space is constrained on A4175 Keynsham Rd but a segregated facility is required

Legend

Proposed Interventions

- Controlled crossing
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- LCWIP Routes
- National Cycle Network
- Schools
- Railway Stations

0 0.28 0.55 1.1 Kilometers

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Route 22: NS9 Clevedon to Weston-super-Mare

Route Description

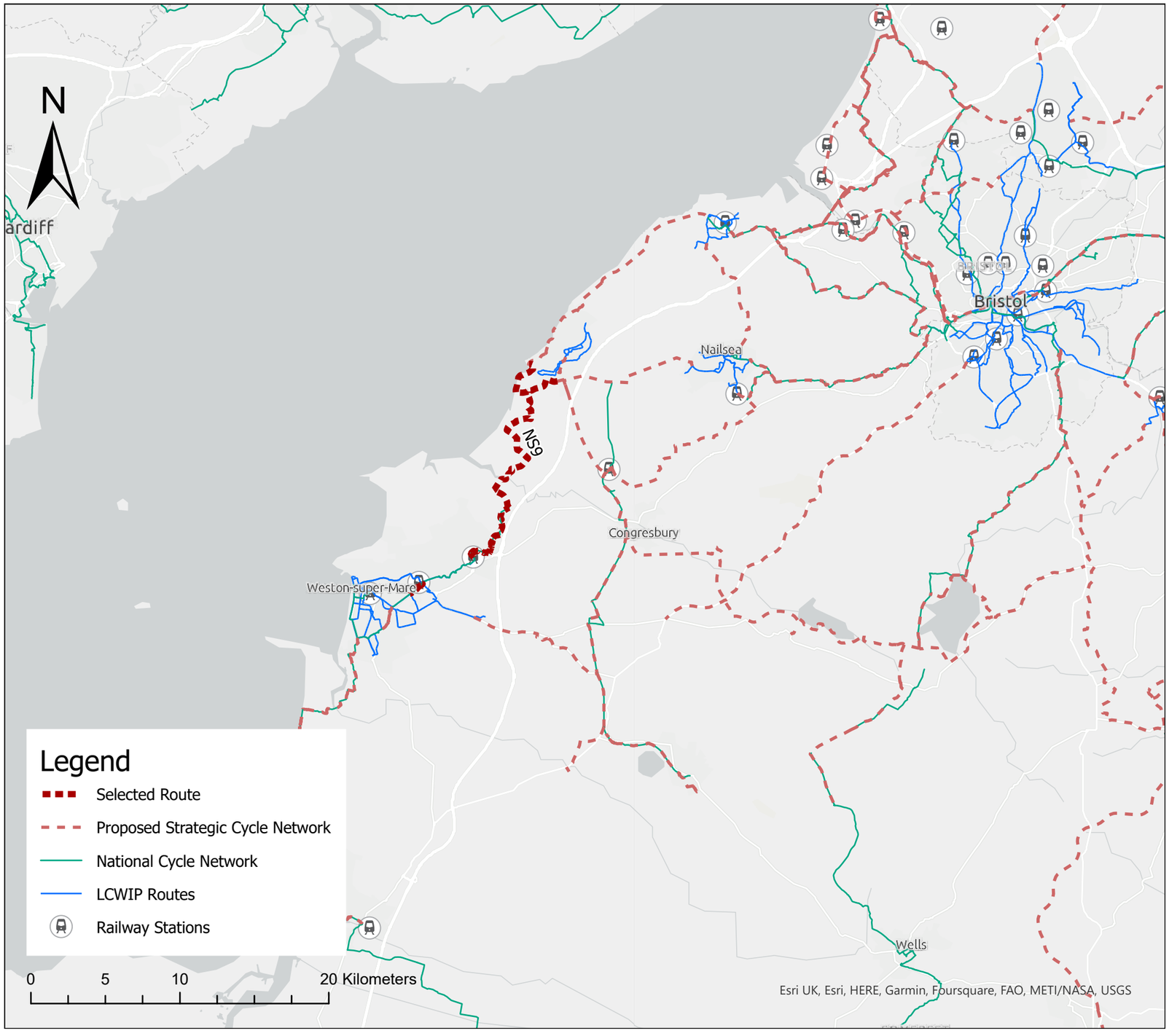
- Route connects Weston Grand Pier to Clevedon Pier, with links to Clevedon town centre and Worle (NCN33 alternative through Worle and Weston)
- Approximately 15.9 km in length
- Key destinations along the route:
  - Clevedon Marine Lake
  - Weston Gateway Business Park
  - Sand Bay
  - North Worle Shopping Centre
- Will form part of commute route between Clevedon and Weston-super-Mare area
- It will form part of the following NCN Routes:
  - Route 33

Opportunities on the Route

- Addresses severance of M5 and shortens existing A370 route by 6km
- Flat area with few hills/gradients
- Scenic route in natural environment, developing alternatives to road using existing bridleways from Wick St Lawrence to seafront
- Opens up area to and acts as a catalyst for sustainable tourism to be promoted as part of the 'Pier to Pier Way, including the Tutshill Greenway

Constraints on the Route

- Route is within the Severn Estuary SSSI



Route 22: NS9 Clevedon to Weston-super-Mare

N

Mixed traffic use along Yeo Bank Lane

Mixed traffic use

Install controlled crossing in roundabout

Pedestrian and cycle priority. Replace cycle lane on pavement by segregated cycle track

Mixed traffic use

0 1 2 4 Kilometers

Legend

Proposed Interventions

- Controlled crossing
- Pedestrian/Cycle Priority
- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Network
- LCWIP Routes
- National Cycle Network
- Hospitals
- Schools
- Railway Stations

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Route 23: SW1 Royal Wootton Bassett to Swindon

Route Description

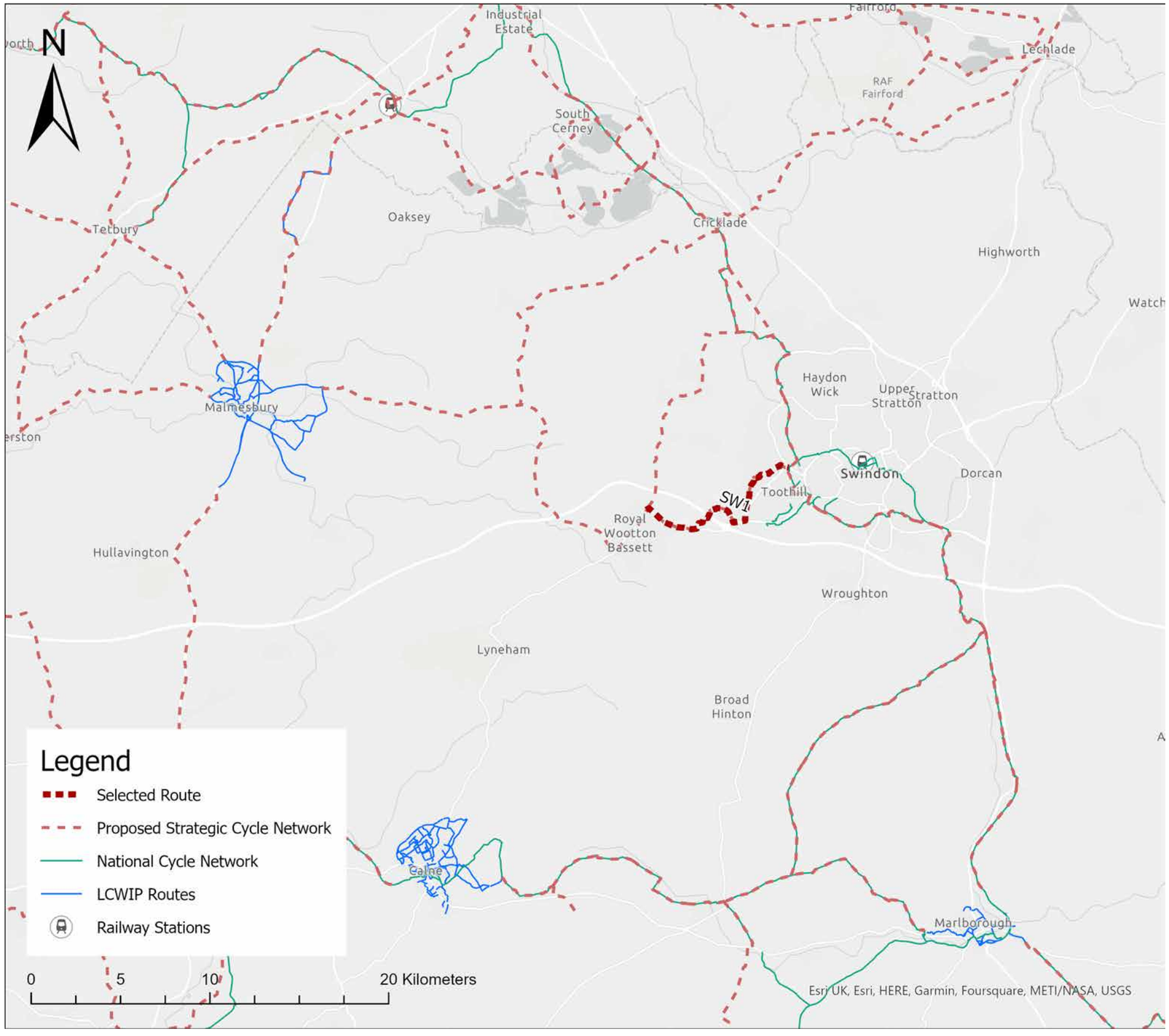
- The route connects Royal Wootton Bassett (RWB) close to the Wiltshire border with the Borough of Swindon
- 7.5km in length
- The route connects to the following destinations:
  - Coped Hall Business Park
  - Interface Business Park
  - Lydiard Fields employment site
  - Windmill Hill Business Park
  - Lydiard Park Academy
  - Shaw Ridge Primary School
  - Shaw Ridge Leisure Park
  - The Spectrum Building
- There is no existing infrastructure between RWB and the county boundary on the A3102
- Within Swindon, the route follows an existing network of shared use paths but they are not suitably wide and use white line segregation in places
- The eastern end of the route connects to NCN Route 45 which provides onward connection to Swindon Station
- The route crosses the M4 motorway which is a major barrier to movement in the area

Opportunities on the Route

- The route has already been considered in part by a Sustrans and Wiltshire Council Study

Constraints on the Route

- Some of the route is within private ownership
- The route could be more direct but there are limited opportunities to cross the M4
- Part of this route do not exist and may need to be built



Route 23: SW1 Royal Wootton Bassett to Swindon

Remove or redesign barriers. Widen path and investigate segregating pedestrians and cycles

Provide pedestrian and cycle priority at existing crossing on Hook Street

Provide shared use path on A3102 with separation from motor traffic. Space is constrained at Sally Pussey's Inn

Continue existing path to the north on the western side of the B4534. Upgrade existing crossing to a controlled crossing

Legend

Proposed Interventions

- Controlled crossing
- Cycle parking
- Junction improvement
- Remove or redesign barriers
- Uncontrolled crossing

- Mixed Traffic
- Segregated
- Shared Use

Other Routes and Key Destinations

- Proposed Strategic Cycle Routes
- National Cycle Network
- Schools

0 0.5 1 2 Kilometers

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8 Deliverability and Impact of Recommendations

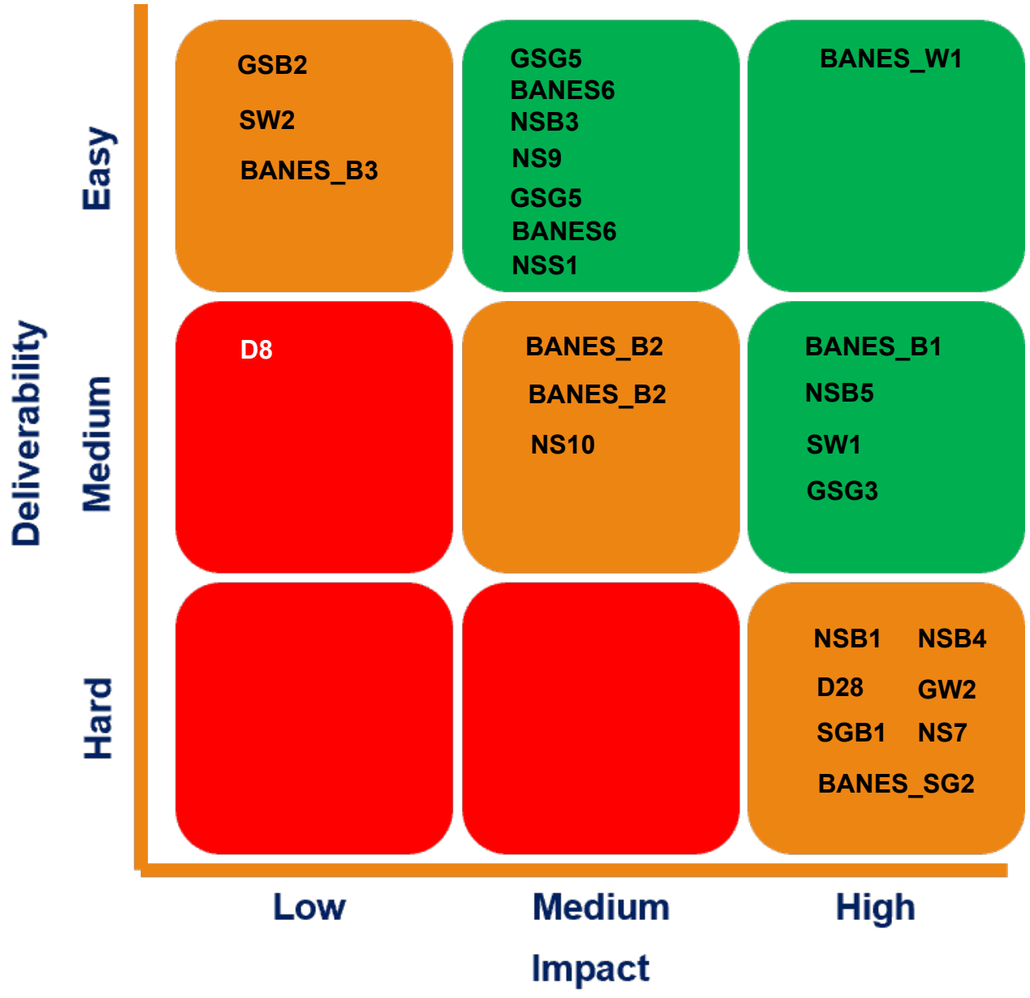
The following table details the potential deliverability and impact of the recommendations described in this report. The objective of this exercise is to differentiate the interventions from each other. This will enable decision-makers to identify 'Quick Wins' (interventions that are easy to deliver and high impact), as opposed to interventions that may be costly and/or challenging to install, and have limited impact. There are, of course, many in between, for example, interventions that offer high impact, but may require additional fundraising and/or more detailed feasibility study.

In order to visually represent deliverability and impact, each intervention has been assigned a colour of red, amber or green, accordingly. This is intended to rank the interventions against each other. Assessments have been made with reference to the five Core Design Principles of LTN 1/20 and professional judgement, however, it is recognised that an amount of subjectivity is inherent within the process.

Deliverability status has been assigned according to best estimates of cost, ease of collaboration with stakeholders (including landowners) and other potential barriers to delivery.

Impact status has been assigned according to PCT data and practitioners' experience of delivering impactful walking and cycling infrastructure. Consideration has also been given to the impact of the scheme in the context of the existing conditions and infrastructure on the route.

The adjacent matrix illustrates where each of the top 23 prioritised route sits in the context of impact against deliverability.



Route Code	Route Name	Deliverability (Easy/Medium/Hard)		Impact (Low/Medium/High)		Cost (Low/Medium/High)	
Route 1: NSB1	Pill to Filton	Hard	Not much space to install cycle track on the A4162. Land negotiation may be required	High	Links Bristol (populated area) and several key destinations.	High	Cycle track along most of the route
Route 2: BANES_B2	Mangotsfield Station to Keynsham Ring Road	Medium	Majority of route is established. Widening and barrier removal is straightforward. Segregation on A4175 Keynsham Road challenging due to space constraints		Links residential areas to a range of uses. A4175 Keynsham Rd is currently unsuitable for most users	Medium	Majority of the route interventions would be cheap with the exception of segregation on the A4175 Keynsham Rd
Route 3: GSG5	Sedbury to Severn Beach	Easy	Majority of route is established and there appears to be suitable space for required interventions		Will make route suitable for a wider range of users. Would facilitate safe crossings of busy roads	Medium	Most existing traffic free provision is of a reasonable standard. New crossings could be expensive
Route 4: BANES_W1	Bath to Corsham	Easy	Existing path goes along the river, PRoWs and low traffic roads. Minor construction elements like crossings or traffic calming measures are needed.	High	Links Bath (populated area) to Corsham. Important commuting link	Medium	Half of the route needs to be built
Route 5: BANES6	Bath to Midsomer Norton	Easy	Majority of the route is established to a good standard. Lighting may be difficult to deliver due to ecology. Some width constrains through rural villages. Route uses small section of third party land but there is an on-road alternative option if this is not possible		Would make route usable all year round and allow less confident users to cycle between Bath and Midsomer Norton	Low	On-street sections could be treated with relatively cheap measures. Low level lighting (e.g. solar studs) is cheap but full lighting will be more expensive
Route 6: D8	Yeovil to Sherborne	Easy	Much of the route is on road and the road is parallel to A30 so it's a less trafficked alternative	Low	Links two medium towns. Half of the route already exists as part of the NCN	Low	Most of the route is on road. Minimal construction
Route 7: BANES_B1	Radstock to Bristol	Medium	Most of the route on PRoW but likely needs engagement with land owners	High	Links Bristol (populated area) and several key destinations	Medium	Half of the route needs to be built
Route 8: SGB1	Coombe Dingle to Cribbs Causeway	Hard	Ecological and heritage implications may make resurfacing and widening difficult within Blaise Estate. Space constraints on Station Rd may make segregation difficult. New bridge over railway could be complicated	High	Much of the route is in place but interventions would improve the users experience and make it accessible to a wider range of users	High	New bridge over railway, segregation on Station Rd and widening existing path on Crisbbs Causeway will be expensive

Route Code	Route Name	Deliverability (Easy/Medium/Hard)		Impact (Low/Medium/High)		Cost (Low/Medium/High)	
Route 9: NSS1	Weston-super-Mare to Highbridge	Easy	Barrier removal, widening, resurfacing and quietway treatment are easy to achieve. Measures to reduce motor vehicle flows could be more complex to install due to public and political support	Medium	Route could become accessible to a wider range of users all year round. Has the potential to transform the environment of the South Esplanade in Burnham-on-Sea	Low	Improvements to existing infrastructure rather than installing new infrastructure
Route 10: GSG3	Wotton-under-Edge to Thornbury	Medium	Requires a lot of third party land. Some areas such as Charfield are very constrained but local Greenway group already have plans in place for Wotton to Charfield section	High	Will provide a safe connection between communities, work places, schools and a new station where there is no existing infrastructure for cycling	High	High cost of land acquisition, infrastructure construction and crossing installation
Route 11: NS10	Portishead to Pill	Medium	Most of the route is existing but it may be difficult to reduce vehicle flows to a suitable level on mixed traffic sections. Widening may be challenging in some locations	Medium	Connects two settlements with key employment destinations and a proposed new station which would provide access into Bristol	Low	Widening, resurfacing and quietway treatment are low cost
Route 12: SGB2	Severn Beach to Shirehampton	Easy	Half of the route is shared path but there is space available for widening/ improvements	Low	links two low populated area and there is not many key destinations in the Severn Beach except for the industrial areas. Most of the route already exists as part of the NCN	Medium	Half of the route needs to be build up
Route 13: SW2	Swindon to Marlborough	Easy	Half of the route already exists. Needs minor improvements	Low	Links Swindon (populated area) with Marlborough and several key destinations	Low	Half of the route already exists. Needs minor improvements. Minimal construction
Route 14: BANES_B3	Bristol to Bath	Easy	Few interventions required. Resurfacing and barrier removal are achievable. Delivery of lighting would be complex due to ecological and maintenance constraints	Low	Interventions will make the route accessible to all potential users but the route is already of good quality	Medium	Cost of interventions would be low with the exception of lighting which would be expensive but potentially not deliverable
Route 15: NS7	Clevedon to Winscombe	Hard	Would require the use of a former railway which is likely to be in third party ownership. May require new bridge over Little River	High	Would provide safe link between two key settlements in North Somerset, one of which has a train station	High	High cost of land acquisition and infrastructure such as a new bridge and controlled crossings
Route 16: D28	Shaftesbury to Gillingham	Hard	Half of the route is shared path and there is space to install it but in Gillingham urban area there is less space to install a segregated cycle track	High	Links two medium populated areas. Important commute link. No existing infrastructure	High	Needs constructions in much part of the route

Route Code	Route Name	Deliverability (Easy/Medium/Hard)		Impact (Low/Medium/High)		Cost (Low/Medium/High)	
Route 17: NSB4	Bristol to Churchill	Hard	Requires a lot of third party land and construction in areas with constrained space. Horizontal separation from motor traffic is required due to speeds and flows, meaning additional width is needed	High	Will provide a safe conneciotn between Bristol and Bristol Airport, a key employment site. Existing route not suitable for most users	High	High costof landacquisitionand expensive new infrastructure such as segregated cycle tracks and controlled crossings
Route 18: NSB3	Long Ashton to Bristol	Easy	Most of the route is on an existing path and the rest is on road.	Medium	Links important key destination as UWE with Long Ashton. Improvement of surface in Ashton Court. Route is part of existing NCN route	Low	Most of the route already exists. It needs minor construction projects like improve surface or crossings
Route 19: NSB5	Avon Path Pill to Bristol	Medium	Most of the route is on an existing path and the rest is on road low traffic roads. Possible ecological constrains.	High	Links Bristol (populated area) with Avon Path Pill. Important commuting link. Route is part of existing NCN	Medium	Most of the route already exist. It needs minor construction projects like improve surface or crossings
Route 20: GW2	Malmesbury to Cirencester	Hard	Requires a large amount of third part land and new infrastructure including signalised crossings	High	Will facilitate safe assess with some key origins and destinations such as between Cirencester and Kemble Station and business park. Existing infrastructure is poor/non existent	High	High cost of land acquisition and infrastructure such as a new greenway and controlled crossings
Route 21: BANES_SG2	Keynsham to Bristol and Bath Railway Path (BBRP)	Hard	Requires third party land, although already a PROW. Will require a new bridge River Avon. Proximity to river will have flooding implications	High	Existing infrastructure is poor/non existent. Will connect Keynsham and it's station with the BBRP and the eastern extents of Bristol	High	High cost of land acquisition and infrastructure such as a new greenway and bridge
Route 22: NS9	Clevedon to Weston-super-Mare	Easy	Most of the route is on road and low traffic	Medium	Links two medium populated areas	Low	Most part of the route is on road so minimal construction needed.
Route 23: SW1	Royal Wootton Bassett to Swindon	Medium	Design work has already progressed for parts of the route but it requires some third party land and construction in constrained areas	High	Links two centre of population with employment, education and transport links. No existing safe route between the two towns	High	High cost of new segregated infrastructure and controlled crossings

9 Long Distance Challenge Route

What are long distance challenge routes?

Long distance challenge routes have been around almost since the advent of the modern bicycle but they have grown in popularity in recent years and decades as cycling for leisure and tourism has started to become more popular again in the country.

Challenge routes are generally over 100 miles in length and can be tackled in stages or in one go. They typically have some kind of geographic, historical or cultural significance.

Routes such as Land's End to John O'Groats or the various coast to coast routes are popular as they give people a sense of achievement from cycling right across the country in addition to taking them through attractive and interesting places.

Hadrian's cycleway for example follows the alignment of Hadrian's Wall taking in the Roman historical sites as well as the attractive countryside on the way.

Some routes follow the route of historical events such as the Monarch's Way (a long distance walking route) which is a 625 mile long footpath which follows the escape route taken by Charles II in 1651 after being defeated in the Battle of Worcester.

The Lochs and Glens Way in Scotland travels through the heart of Scotland between Glasgow and Inverness, passing through two national parks.

Benefits of Long Distance Challenge Routes

Long distance challenge routes can be an great benefit to the tourism economies of the areas they pass through. The routes bring business to the hospitality industry with participants needing places to eat, drink and stay. Additionally, many people are likely to visit some of the key tourism attractions on the route.

The routes also act a good advert for places to encourage participants to come back for another visit and stay a bit longer the next time.

Creating a successful long distance challenge route

Successful long distance challenge routes all have the following characteristics:

- A strong brand e.g. Land's End to John O'Groats (LEJOG)
- Good signage throughout the full length of the route
- Information and maps on the route which can be found online and within cycling literature. This should include information on places to visit along the route as well as suggestions of places to stay
- High quality infrastructure that caters 'for everyone'. The route will be used by a greater number and range of people if it is suitable for families and keen sport cyclists alike.
- Attractive scenery and interesting places along the route

Severn to Sea Long Distance Challenge Route

A new long distance challenge route within the STB area could travel north to south through the region connecting the River Severn in Gloucestershire within Bournemouth on the south coast.

This route would benefit from good rail connectivity at either end at Gloucester and Bournemouth stations respectively. There is also an opportunity to route it through all of the Local Authority districts within the Western Gateway STB area.

The route would be 254km in length which could be ridden in one go or split into sections for a multi-day ride. It would pass through or close to the following places of interest:

- Gloucester (including Cathedral and Docks)
- Gloucester and Sharpness Canal
- Wildfowl and Wetlands Trust (WWT) Slimbridge
- Leigh Woods and Ashton Court Estate
- Bristol
- Bristol and Bath Railway Path
- Avon Valley Railway
- Bath
- Two Tunnels, Bath
- Bradford-on-Avon
- Kennet and Avon Canal
- Longleat
- Stourhead (National Trust)
- North Dorset Trailway
- Kingston Lacey (National Trust)
- Wimborne Minster
- Bournemouth Beach and Pier

The adjacent map shows the alignment of the Severn to Sea long distance challenge route and identifies some of the key points of interest along it. Some of the route already exists or has suitable cycling infrastructure, however sections will need to be built to realise this challenge route.

The Highbridge to Weston-super-Mare and Weston-super-Mare to Clevedon routes could be promoted as part of a 'scenic' Land's End to John O'Groats route, avoiding the A38 / A370.

Long Distance Challenge Route

N

Legend

Severn to Sea Long Distance Challenge Route

Gloucester

Gloucester and Sharpness Canal

WWT Slimbridge

Leigh Woods and Ashton Court Estate

Bristol

Bristol and Bath Railway Path

Avon Valley Railway

Bath

Kennet and Avon Canal

Two Tunnels Route

Bradford-on-Avon

Longleat

Stourhead

North Dorset Trailway

Kingston Lacey

Wimbourne Minster

Bournemouth Beach and Pier

Ross-on-Wye
Cheltenham
The Cotswolds AONB
Mitcheldean
Wye Valley AONB
Cinderford
Forest of Dean
Monmouth
Coleford
Northleach
Burford
Painswick
Carterton
Stonehouse
Lydney
Cirencester
Fairford
Lechlade
Usk
Berkeley
Nailsworth
Wentwood
Chepstow
Wotton-under-Edge
Tetbury
Cricklade
Faringdon
Highworth
Thornbury
Caldicot
Malmesbury
Swindon
South Gloucestershire
Royal Wootton Bassett
Portishead
Filton
Kingswood
Chippenham
Corsham
Calne
Marlborough
Savernake Forest
North Somerset
Bath and North East Somerset
Melksham
Devizes
Bradford on Avon
Trowbridge
Radstock
Mendip Hills AONB
Axbridge
Westbury
Wiltshire
Salisbury Plain Training Area
Imber Range
Tidworth
Wells
Shepton Mallet
Warminster
Copehill Down Training Area
Amesbury
Glastonbury
Sherrington Wood
Porton Down Danger Area
Bruton
Grovely Wood
Castle Cary
Mere
Wilton
Salisbury
Somerton
Wincanton
Langport
Gillingham
Cranborne Chase & West Wiltshire Downs AONB
Shaftesbury
Longford Estate
Yeovil
Sherborne
Stalbridge
Sturminster Newton
Cranborne Estate
Fordingbridge
Ilminster
Crewkerne
Verwood
New Forest National Park
Blandford Forum
Ringwood
Hincheslea Moor
Beaminster
Dorset AONB
Wimborne Minster
Ferndown
Bridport
Bournemouth, Christchurch and Poole
Christchurch
Highcliffe-on-Sea
Lymington
Dorchester
Poole
Bournemouth
Poole Harbour
Wareham
Lyme Bay and Torbay Special Area of Conservation
Godlingston Heath
Lulworth Range
Chickerell

0 10 20 40 Kilometres

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10 Next Steps

Further develop prioritisation to identify schemes for further development

Whilst the prioritisation process has shown which routes are of the highest priority based on a data led approach, this does not necessarily reflect the best order in which to deliver the routes. For example, some of the routes could be delivered in short timescales with minimal planning or further work required - 'Quick Wins'. Theses scheme will generally be lower cost but may also be lower impact. On the other hand, some of the schemes which will have the greatest impact require negotiations with third party landowners, planning applications and a detailed design process. As such, they will need multiple years to deliver.

The prioritisation criteria could be adjusted in the future to best fit the funding opportunities available at the time.

Further develop the interventions

Whilst this study has set out interventions for each of the routes, these have been recommended based on a desktop audit only. This exercise should be developed further with in-person audits and technical surveys to gain an accurate and up-to-date picture of conditions on the ground. This will provide the opportunity to validate and build on the list of recommendations.

Stakeholder and community engagement

To enable successful delivery of any of the routes it is paramount that engagement with stakeholders is undertaken at an early stage. Detailed stakeholder sessions would be advisable with the major landowners affected, as well as the Highway Authorities to flag any key issues which may arise from the proposed alignment.

Input from members of the local communities will assist in devising an optimal solution for each location.

Local stakeholders may include but are not limited to:

- Landowners on the route
- Landowners adjacent to the route
- Local residents
- Local businesses
- Local walking, cycling and other interest groups in the area, plus local representatives of national organisations such as Cycling UK
- British Horse Society
- Local disability forum
- Local authorities
- Local politicians at all levels - Parish Councillor to MP
- Statutory Interests

Identify and bid for sources of funding

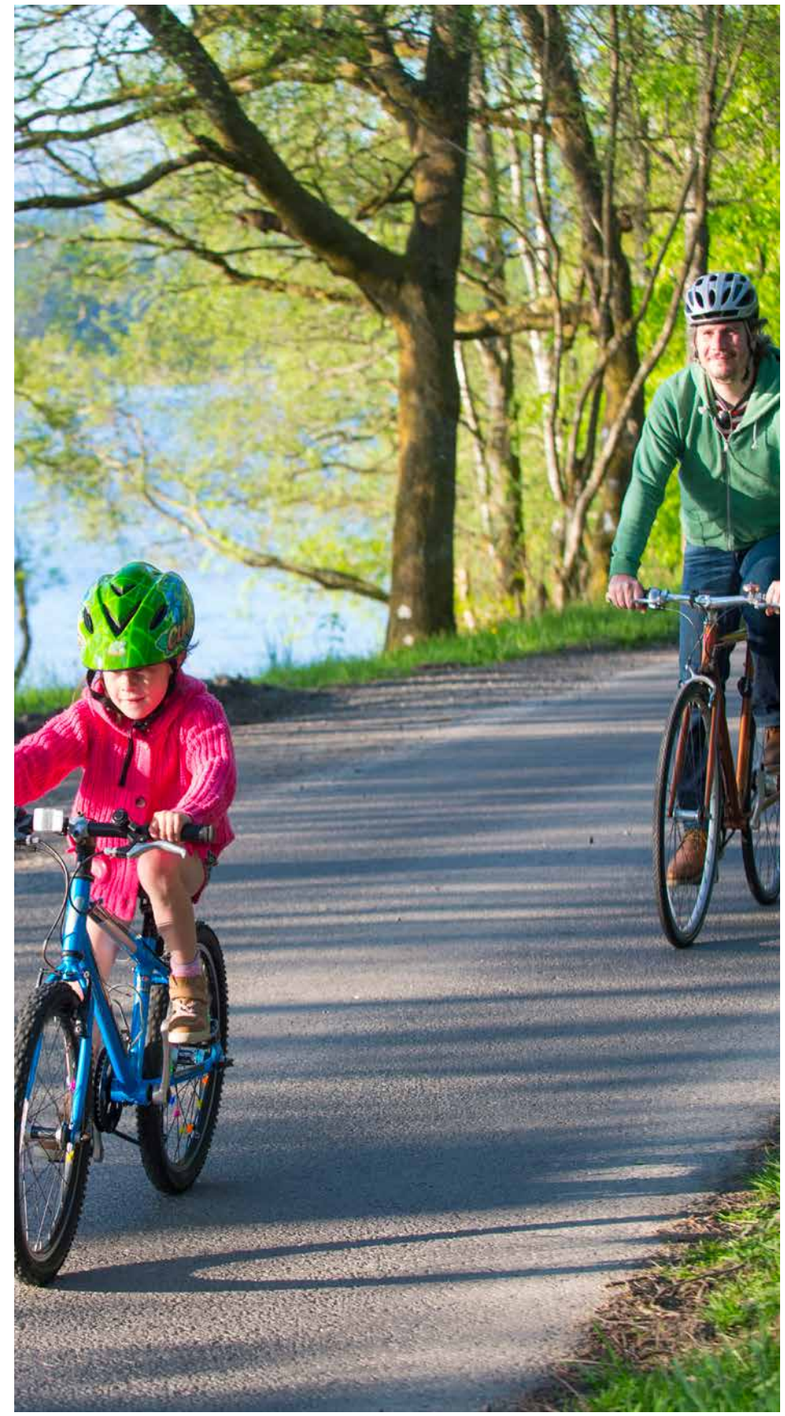
Potential sources include:

- DfT Active Travel Fund (Active Travel England)
- DfT Capability Fund
- DfT LCWIP funding stream
- Local Authority Highways Departments
- Local economic regeneration funding
- National Highways
- CIL / S106 from developments

Further studies

Consider further studies needed for scheme development such as:

- Traffic surveys
- Topographic surveys
- Outline designs
- Ecological and arboricultural surveys
- Archaeological surveys



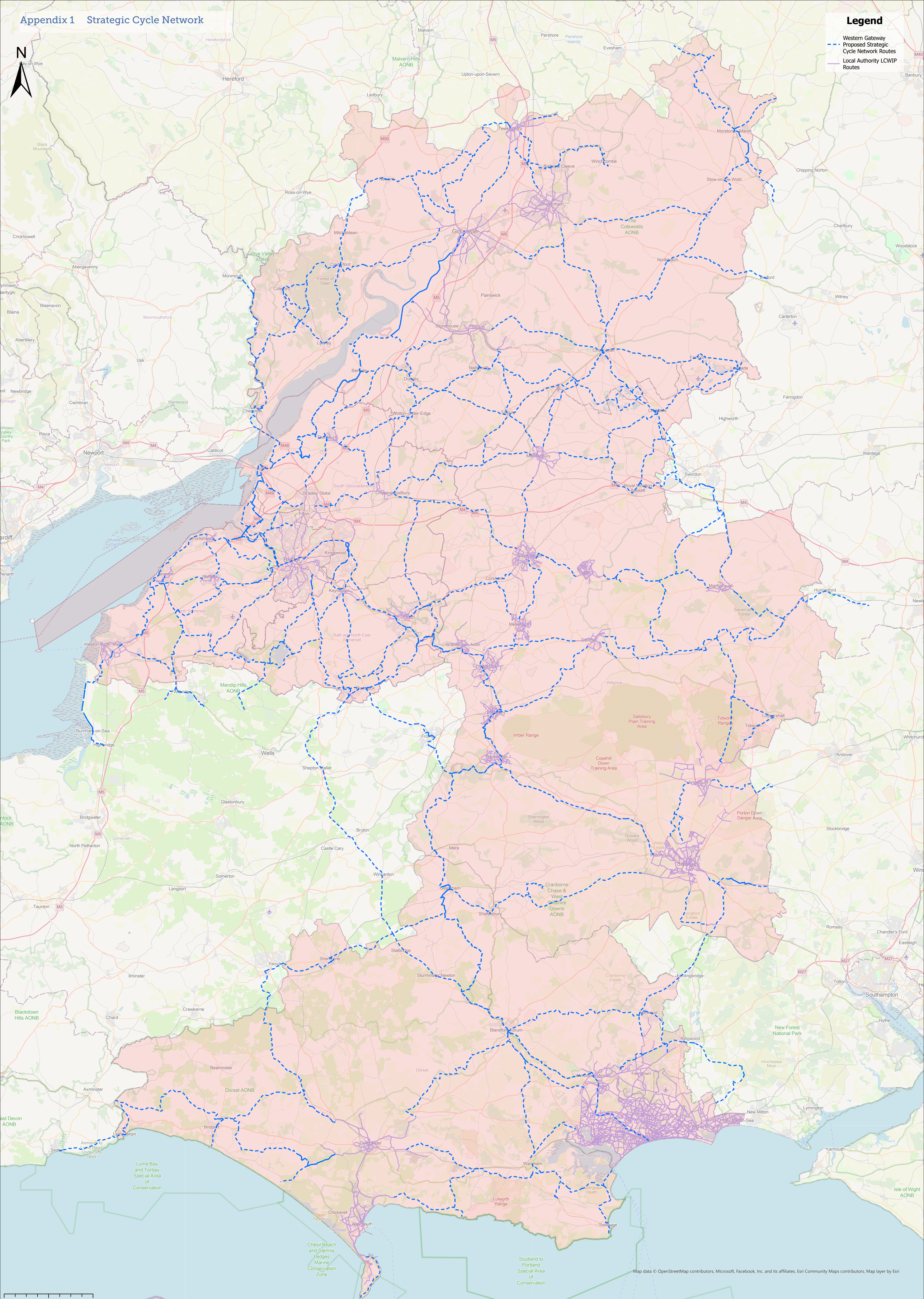
11 APPENDICES

Appendix 1 Strategic Cycle Network

Appendix 2 Full prioritisation table

Appendix 3 Strategic Cycle Network labelled with route references

Appendix 1 Strategic Cycle Network



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Appendix 2 Prioritisation table

Route	Length (KM)	Total Number Of Destinations Within 400M Per KM Score		Total Workplace Population Within 400M Per KM Score		Total Resident Population Within 400M Per KM Score		Number Of Schools Within 400M Per KM Score		Train Stations		SRN Within 400M Score	Number Of NCN Intersections Score		Number Of LCWIP Intersections Score		Total Number Of Bus Stops Within 400M PerKM Score		Total Number Of Tourism Spots Within 400M Per KM Score		Average IMD Rank Within 400M Score		LA Boundary Cross Score	Officer Support	TOTAL	RANK
		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score				
NSB1: Pill to Filton	10.8	15.8	5	750.3	5	1832.4	5	1.2	5	1	5	2	2	4	3	5	12.4	5	1.7	5	14682.1	5	4	4	59	1
BANES_B2: Mangotsfield Station to Keynsham Ring Road	9.5	13.9	5	422.4	5	1421.3	5	0.8	5	1	5	0	1	1	3	5	10.5	5	0.3	5	20868.9	3	4	5	53	2
GSG5: Sedbury to Severn Beach	16.9	4.4	4	303.0	5	490.5	4	0.5	5	2	5	2	3	5	0	0	4.5	4	0.2	4	24723.4	2	4	3	47	3
BANES_W1: Bath to Corsham	15.2	37.2	5	972.4	5	678.7	5	0.5	5	0		2	1	4	1	1	8.4	5	1.1	5	24216.5	2	4	4	47	3
BANES6: Bath to Midsomer Norton	20.2	9.4	5	246.0	4	830.1	5	0.8	5	1	4	0	2	4	6	5	6.9	5	0.1	4	23046.1	2	0	3	46	5
D8: Yeovil to Sherborne	9.8	6.1	4	366.0	5	598.8	5	0.7	5	2	5	0	2	4	0	0	5.6	4	0.1	4	16751.7	5	0	4	45	6
BANES_B1: Radstock to Bristol	20.8	3.8	4	190.2	4	670.2	5	0.4	4	0		0	2	5	1	1	6.1	4	0.1	4	17203.8	5	4	5	45	6
SGB1: Coombe Dingle to Cribbs Causeway	4.7	4.9	4	231.8	4	881.8	5	0.9	5	1	5	2	1	1	0	0	6.4	5	1.9	5	15551.5	5	4		45	6
NSS1: Weston-super-Mare to Highbridge	22.6	2.9	3	334.1	5	654.5	5	0.4	4	1	4	0	1	1	4	5	5.3	4	0.1	4	10645.6	5	4		44	9
GSG3: Wotton-under-Edge to Thornbury	13.1	7.3	5	59.7	2	150.1	3	0.4	4	1	5	2	1	3	0	0	3.4	3	0.2	4	26547.3	1	4	8	44	9
NS10: Portishead to Pill	6.4	3.9	4	243.9	4	620.1	5	0.2	3	2	5	2	2	5	1	1	5.4	4	1.9	5	25312.9	2	4		44	9
SGB2: Severn Beach to Shirehampton	10.7	3.5	4	280.1	5	473.7	4	0.7	5	0		2	3	5	0	0	3.1	3	0.2	4	9325.2	5	4	3	44	9
SW2: Swindon to Marlborough	21.0	2.8	3	246.2	5	669.1	5	0.3	4	0		2	2	5	1	3	5.1	4	0.1	4	19125.1	4	4		43	13
BANES_B3: Bristol to Bath	14.4	3.0	3	343.5	5	896.9	5	0.5	5	0		0	3	5	2	4	6.5	5	0.1	4	22758.7	3	4		43	13
NS7: Clevedon to Winscombe	16.8	3.7	4	228.0	4	624.1	5	0.3	4	1	5	2	1	1	5	5	4.1	4	0.0	2	24032.4	2	0	5	43	13
D28: Shaftesbury to Gillingham	7.4	16.5	5	357.6	5	522.5	4	0.7	5	1	5	0	1	2	0	0	6.7	5	0.7	5	22109.7	3	0	3	42	16
NSB4: Bristol to Churchill	18.0	2.7	3	231.1	4	363.6	4	0.2	3	1	4	0	2	4	1	3	4.2	4	0.1	4	20363.8	4	4		41	17
NSB3: Long Ashton to Bristol	3.3	6.6	5	224.3	4	463.2	4	1.2	5	0		0	1	3	1	3	6.0	4	0.6	5	21309.8	3	4		40	18
NSB5: Avon Path Pill to Bristol	8.6	3.6	4	444.6	5	1026.1	5	0.1	2	2	5	0	1	1	1	2	3.8	3	4.6	5	19917.3	4	4		40	18
GW2: Malmesbury to Cirencester	18.8	4.4	4	305.0	5	266.8	4	0.2	3	1	4	0	1	3	13	5	3.0	3	0.1	3	23985.1	2	4		40	18
BANES_SG2: Keynsham to BBRP	2.6	26.9	5	485.4	5	1036.6	5	0.8	5	1	5	0	1	2	0	0	13.1	5	0.0	1	22648.1	3	4		40	18
NS9: Clevedon to Weston-super-Mare	15.9	2.1	3	235.8	4	601.9	5	0.2	3	4	5	2	1	2	2	4	4.8	4	0.1	3	18643.0	4	0		39	22
SW1: Royal Wootton Bassett to Swindon	7.5	3.1	3	894.5	5	1431.6	5	0.5	5	0		2	1	3	0	0	11.3	5	0.3	5	21598.0	3	0	3	39	22
B1: Pill Path	5.5	9.7	5	341.0	5	656.6	5	0.6	5	1	5	0	0	0	1	2	5.3	4	6.4	5	20724.6	3	0		39	22
BANES5: Paulton to Midsomer Norton	4.4	12.7	5	402.8	5	793.6	5	2.0	5	0		0	1	3	3	5	12.3	5	0.2	4	23298.3	2	0		39	22

Route	Length (KM)	Total Number Of Destinations Within 400M Per KM Score		Total Workplace Population Within 400M Per KM Score		Total Resident Population Within 400M Per KM Score		Number Of Schools Within 400M Per KM Score		Train Stations		SRN Within 400M Score	Number Of NCN Intersections Score		Number Of LCWIP Intersections Score		Total Number Of Bus Stops Within 400M PerKM Score		Total Number Of Tourism Spots Within 400M Per KM Score		Average IMD Rank Within 400M Score		LA Boundary Cross Score	Officer Support	TOTAL	RANK
		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Score		
SG1: Thornbury to Filton	8.5	13.0	5	622.1	5	518.5	4	0.7	5	0		2	0	0	2	4	6.7	5	0.9	5	22875.3	3	0		38	26
D32: Poole to Wareham	8.8	1.5	3	159.8	4	467.6	4	0.5	4	0		0	0	0	1	1	6.7	5	0.1	4	19480.8	4	4	5	38	26
NS1: Portishead to Nailsea	6.2	14.8	5	479.6	5	669.5	5	0.5	5	0		2	1	2	2	4	5.6	4	0.6	5	27292.7	1	0		38	26
SG3: Filton to Yate	9.1	6.5	4	429.3	5	1257.8	5	0.9	5	0		2	1	3	2	4	7.8	5	0.0	1	26896.8	1	0	3	38	26
D21: Verwood to St Leonards	8.3	1.4	3	162.6	4	444.5	4	0.2	4	0		2	1	4	1	1	6.6	5	0.4	5	26266.0	1	4		37	30
BANES_W3: Longleat to Frome to Midsomer Norton	22.0	2.9	3	255.9	5	598.4	5	0.4	4	1	4	0	1	3	0	0	2.9	3	0.3	5	16176.0	5	0		37	30
SGB3: Western Severn Beach to Shirehampton Option	4.9	6.5	5	942.8	5	421.9	4	0.6	5	2	5	2	0	0	0	0	5.1	4	0.0	2	7553.8	5	0		37	30
NS6: Portishead to Clevedon	11.0	12.2	5	449.1	5		5	0.2	3	0		0	0	0	2	4	8.8	5	1.5	5	26193.4	1	0	4	37	30
D4: West Bay to Bridport	5.0	11.5	5	442.8	5	794.4	5	0.2	3	0		2	1	2	0	0	11.1	5	0.2	4	17196.6	5	0		36	34
BANES10: Keynsham to Pensford	7.0	2.1	3	351.4	5		5	0.4	4	0		0	2	5	2	5	5.1	4	0.0	1	18885.6	4	0		36	34
D7: Yeovil to Dorchester	33.0	3.9	4	298.5	5	232.6	3	0.2	3	2	5	0	1	2	1	3	3.2	3	0.0	3	16346.6	5	0		36	34
BANES_W2: Bath to Bradford on Avon	9.3	1.3	2	62.2	2	213.3	3	0.1	2	2	5	2	1	2	1	2	2.4	2	0.2	4	28209.8	1	4	5	36	34
SG5: Filton to Severn Beach	9.2	18.4	5	400.5	5	283.0	4	0.2	3	0		2	3	5	0	0	3.9	3	0.9	5	20168.6	4	0		36	34
WWB1: Marlborough to Kintbury	25.0	3.7	4	69.2	3	177.9	3	0.2	3	3	5	0	2	5	1	3	2.4	2	0.0	1	23349.8	2	4		35	39
GS1: Cirencester to Swindon	25.7	5.5	4	332.1	5	665.0	5	0.4	4	0		0	1	3	0	0	5.1	4	0.1	3	22562.5	3	4		35	39
NS3: Backwell to Yatton	8.4	3.8	4	110.4	4	368.5	4	0.6	5	1	5	0	1	4	0	0	3.9	3	0.1	4	25766.1	1	0		34	41
D14: Studland to Durlston	7.3	9.5	5	262.3	5	555.4	5	0.5	5	0		0	0	0	0	0	8.2	5	0.4	5	20677.3	4	0		34	41
W27: Melksham to Semington	2.7	1.9	3	276.5	5	232.7	3	0.4	4	0		0	2	5	2	4	6.8	5	0.0	1	20408.7	4	0		34	41
BANES_B3: BBRP to Saltford	1.2	10.3	5	220.5	4	723.8	5	0.9	5	0		0	2	4	1	2	8.6	5	0.0	3	28096.5	1	0		34	41
BANES_SG1: Chipping Sodbury to Wal	20.8	5.7	4	84.7	3	278.8	4	0.1	3	0		2	1	3	2	4	3.4	3	0.0	3	26078.4	1	4		34	41
NS2: Nailsea to Backwell	1.0	7.8	5	97.6	3	588.9	5	1.9	5	1	5	0	1	1	1	2	15.6	5	0.0	1	29989.4	1	0		33	46
GSG6: Gloucester to Thornbury	49.7	2.8	3	74.7	3	151.2	3	0.2	3	0		0	2	5	1	3	2.9	3	0.0	3	22803.0	3	4		33	46
D19: Blandford Forum to Henstridge	23.5	2.7	3	85.7	3	204.0	3	0.5	4	0		0	3	5	0	0	3.5	3	0.1	4	18672.6	4	4		33	46
NS5: Weston-super-Mare to Winscombe	6.4	5.0	4	70.6	3	330.6	4	0.5	4	0		2	1	4	1	1	5.8	4	0.2	4	21789.5	3	0		33	46
DH2: Wimborne Minster to Holmsley New Forest	21.5	2.7	3	246.6	5	326.7	4	0.3	4	0		2	1	4	8	5	2.2	2	0.0	2	22895.9	2	0		33	46

Route	Length (KM)	Total Number Of Destinations Within 400M Per KM Score		Total Workplace Population Within 400M Per KM Score		Total Resident Population Within 400M Per KM Score		Number Of Schools Within 400M Per KM Score		Train Stations		SRN Within 400M Score	Number Of NCN Intersections Score		Number Of LCWIP Intersections Score		Total Number Of Bus Stops Within 400M PerKM Score		Total Number Of Tourism Spots Within 400M Per KM Score		Average IMD Rank Within 400M Score		LA Boundary Cross Score	Officer Support	TOTAL	RANK
		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Score		
GWo2: Tewksbury to Bushley	4.4	31.0	5	140.8	4	260.2	3	0.2	3	0		0	1	4	1	1	4.1	4	0.2	5	21063.2	3	0		32	51
W28: Bradford on Avon to Devizes	12.7	1.0	2	62.9	3	184.0	3	0.1	2	0		0	2	4	4	5	2.1	2	0.1	3	20353.2	4	0	4	32	51
D22: Blandford Forum to Wareham	21.7	1.7	3	53.4	2	106.8	2	0.1	2	1	4	2	2	5	0	0	3.6	3	0.2	4	18204.1	5	0		32	51
GO2: Moreton in Marsh to Kingham	19.3	3.2	4	35.5	2	68.9	2	0.2	3	1	4	0	2	5	0	0	2.0	2	0.1	3	21091.0	3	4		32	51
GWa1: Moreton in Marsh to Burmington	7.8	5.6	4	72.0	3	128.9	2	0.1	2	1	5	0	1	3	0	0	2.0	2	0.0	3	19991.4	4	4		32	51
BANES_S1: Midsomer Norton to Henstridge	42.2	1.1	2	100.1	3	192.0	3	0.2	3	1	4	2	0	0	1	1	2.4	2	0.0	3	20367.4	4	4		31	56
W13: Chippenham to Corsham	2.8	8.5	5	313.3	5	198.7	3	0.7	5	0		0	1	2	1	2	3.5	3	0.0	2	19952.8	4	0		31	56
G1: Monmouth to Chepstow	25.6	1.6	3	28.4	1	90.7	2	0.2	3	0		2	2	4	0	0	3.6	3	0.3	5	20047.2	4	4		31	56
G30: Stroud to Dursley	10.7	1.9	3	97.0	3	297.4	4	0.4	4	1	5	2	0	0	1	1	8.8	5	0.0	2	24024.0	2	0		31	56
DW2: Salisbury to Verwood	27.7	0.6	2	72.3	3	277.9	4	0.3	4	0		2	0	0	3	5	2.7	2	0.0	3	24126.9	2	4		31	56
D30: Blandford Forum to Wimborn Minster	15.2	1.4	2	113.4	4	113.0	2	0.3	4	0		0	2	5	2	4	1.8	1	0.3	5	20505.5	4	0		31	56
G41: Coleford to Clearwood Caves	2.4	25.0	5	586.5	5	695.3	5	0.0	1	0		0	0	0	0	0	19.7	5	2.5	5	16000.5	5	0		31	56
G28: Nailsworth to Tetbury	7.4	12.5	5	73.7	3	317.0	4	0.5	5	0		0	1	3	0	0	6.2	5	0.1	4	25133.6	2	0		31	56
DW1: Longleat to Gillingham	24.3	2.8	3	27.6	1	116.6	2	0.2	3	0		2	4	5	0	0	2.8	3	0.2	5	21612.4	3	4		31	56
D2: Lyme Regis to Monkton Wyld	6.3	8.4	5	73.9	3	250.9	3	0.3	4	0		2	1	3	0	0	5.6	4	0.2	4	23446.5	2	0		30	65
G19: Nailsworth to Chalford	5.7	6.2	4	142.6	4	269.8	4	0.5	5	0		0	1	1	5	5	7.9	5	0.0	1	25932.8	1	0		30	65
W21: Chippenham to Melksham	11.2	0.5	1	304.0	5	629.4	5	0.0	1	0		0	2	4	2	4	1.7	1	1.1	5	19970.6	4	0		30	65
GSG4: Dursley to Thornbury	17.9	3.5	4	102.8	3	291.9	4	0.1	2	0		2	0	0	1	2	4.8	4	0.1	3	23584.5	2	4		30	65
D1: Lyme Regis to Seaton	10.5	7.5	5	168.3	4	279.6	4	0.0	1	0		0	1	4	0	0	3.1	3	0.5	5	20473.6	4	0		30	65
GWo1: Tewkesbury to Worcestershire	3.9	1.5	3	117.4	4	310.5	4	0.5	5	0		0	1	1	1	2	2.3	2	0.0	1	20288.6	4	4		30	65
W12: Corsham to Melksham	5.6	1.1	2	162.9	4	409.1	4	0.5	5	0		0	1	2	1	2	8.1	5	0.0	2	19121.6	4	0		30	65
W7: Bulford Camp to Ludgershall	5.9	2.7	3	384.5	5	552.9	4	0.7	5	0		0	0	0	1	2	8.9	5	0.0	2	20572.2	4	0		30	65
G6: Cinderford to Gloucester	23.9	2.1	3	34.2	2	108.7	2	0.2	3	0		2	1	2	2	4	3.2	3	0.1	3	16521.3	5	0		29	73
D17: Sherborne to Gillingham	24.0	2.7	3	37.8	2	134.8	3	0.4	4	0		0	2	4	0	0	2.8	2	0.1	3	20476.7	4	4		29	73
GW5: Cotswold Water Park Links	6.8	1.5	3	94.4	3	152.2	3	0.1	3	0		2	1	2	0	0	4.3	4	0.1	4	27236.3	1	4		29	73

Route	Length (KM)	Total Number Of Destinations Within 400M Per KM Score		Total Workplace Population Within 400M Per KM Score		Total Resident Population Within 400M Per KM Score		Number Of Schools Within 400M Per KM Score		Train Stations		SRN Within 400M Score	Number Of NCN Intersections Score		Number Of LCWIP Intersections Score		Total Number Of Bus Stops Within 400M PerKM Score		Total Number Of Tourism Spots Within 400M Per KM Score		Average IMD Rank Within 400M Score		LA Boundary Cross Score	Officer Support	TOTAL	RANK
		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Score		
G2: Cinderford to Coleford	12.1	10.0	5	107.1	4	244.4	3	0.0	1	0		0	1	1	0	0	7.4	5	1.1	5	13463.0	5	0		29	73
NSS3: Winscombe to Cheddar	8.0	6.0	4	145.5	4	306.0	4	0.5	5	0		0	1	3	0	0	4.3	4	0.1	4	25607.0	1	0		29	73
NS4: Nailsea to Long Ashton	7.0	2.9	3	143.7	4	485.7	4	0.4	4	0		0	1	4	1	3	4.2	4	0.0	2	28689.0	1	0		29	73
G35: Chipping Campden to Moreton in Marsh	11.0	4.8	4	34.1	2	59.0	1	0.3	4	1	5	0	2	5	0	0	2.8	3	0.0	1	22206.8	3	0		28	79
SG2: Yate to Thornbury	10.8	0.8	2	153.1	4	219.4	3	0.3	4	0		2	1	2	2	4	3.6	3	0.0	1	22348.4	3	0		28	79
G7: Coleford to Lydney	12.2	9.6	5	90.7	3	244.1	3	0.1	2	0		0	0	0	0	0	9.9	5	0.3	5	16743.0	5	0		28	79
W26: Amesbury to Grateley	11.6	0.2	1	87.3	3	94.3	2	0.1	2	1	5	2	0	0	1	3	1.1	1	0.1	4	25940.0	1	4		28	79
G5: Newent to Cinderford	17.1	3.6	4	147.1	4	286.3	4	0.4	4	0		2	0	0	0	0	4.2	4	0.0	1	15824.1	5	0		28	79
D9: Weymouth to Weston (Portland)	8.4	1.4	2	207.4	4	604.9	5	0.0	1	0		0	0	0	1	3	3.2	3	0.8	5	10393.3	5	0		28	79
BANES3: Bath to Radstock	11.4	2.7	3	225.3	4	735.3	5	0.3	4	0		0	0	0	0	0	8.4	5	0.1	4	21938.9	3	0		28	79
BANES7: Keynsham to Paulton	14.0	4.0	4	131.2	4	449.4	4	0.1	3	0		0	1	3	1	3	6.2	4	0.0	1	24215.1	2	0		28	79
G33: Stroud to Nailsworth	0.3	69.1	5	172.6	4	188.0	3	5.8	5	0		0	1	2	1	2	51.8	5	0.0	1	26399.0	1	0		28	79
G39: Berkeley to Heathfield	2.4	10.0	5	125.7	4	299.4	4	0.4	4	0		0	0	0	0	0	8.3	5	0.8	5	25794.3	1	0		28	79
D18: Dorchester to Wool	12.7	1.4	2	49.5	2	88.1	2	0.2	3	1	5	0	1	3	1	3	2.0	2	0.0	2	19920.6	4	0		28	79
BANES1: Paulton to Peasedown St John	7.2	3.3	4	191.0	4	745.8	5	0.7	5	0		0	0	0	0	0	6.4	5	0.0	1	20911.8	3	0		27	90
D12: Wool to West Lulworth	8.8	2.3	3	78.8	3	165.7	3	0.1	2	1	5	0	1	2	0	0	3.9	3	0.0	1	17885.0	5	0		27	90
W29: Westbury to Warminster	3.2	0.3	1	48.9	2	233.2	3	0.0	1	1	5	0	1	4	2	5	1.9	2	0.0	2	23331.0	2	0		27	90
NS8: Nailsea to Clevedon	6.0	1.0	2	169.8	4	573.4	5	0.0	1	0		2	1	1	1	1	4.6	4	0.0	2	24199.8	2	0	3	27	90
G22: Dursley to Wotton-under-Edge	7.2	18.8	5	177.4	4	499.7	4	0.3	4	0		0	0	0	0	0	5.2	4	0.7	5	25991.4	1	0		27	90
NS11: Backwell Link	1.7	1.2	2	313.8	5	976.7	5	1.2	5	0		0	1	3	0	0	4.0	4	0.0	2	28504.2	1	0		27	90
G3: Cinderford to Lydney	14.1	5.8	4	122.5	4	431.1	4	0.1	2	0		0	0	0	0	0	9.0	5	0.1	3	15092.4	5	0		27	90
NSB2: Portishead to Bristol	11.4	0.7	2	66.8	3	104.0	2	0.1	2	0		2	2	5	1	1	2.4	2	0.4	5	25227.3	2	0		26	97
GSG1: Tetbury to Chipping Sodbury	24.6	6.9	5	80.1	3	160.8	3	0.2	3	0		0	1	1	0	0	3.1	3	0.0	3	25583.6	1	4		26	97
W1: Salisbury to Shaftesbury	25.3	0.6	2	84.9	3	131.6	2	0.1	2	0		0	1	2	1	3	1.3	1	0.0	2	17894.7	5	4		26	97
W6: Trowbridge to Westbury	4.4	3.0	3	450.6	5	395.9	4	0.0	1	0		0	0	0	6	5	6.4	5	0.0	1	23608.3	2	0		26	97
GSG2: Wotton-under-Edge to Yate	11.4	1.3	2	84.3	3	212.5	3	0.3	4	0		0	1	1	1	2	2.5	2	0.1	4	27619.4	1	4		26	97
G10: Bishops Cleeve to Winchcombe	14.1	6.1	4	116.2	4	383.9	4	0.6	5	0		0	0	0	0	0	7.8	5	0.1	3	26361.7	1	0		26	97

Route	Length (KM)	Total Number Of Destinations Within 400M Per KM Score		Total Workplace Population Within 400M Per KM Score		Total Resident Population Within 400M Per KM Score		Number Of Schools Within 400M Per KM Score		Train Stations		SRN Within 400M Score	Number Of NCN Intersections Score		Number Of LCWIP Intersections Score		Total Number Of Bus Stops Within 400M PerKM Score		Total Number Of Tourism Spots Within 400M Per KM Score		Average IMD Rank Within 400M Score		LA Boundary Cross Score	Officer Support	TOTAL	RANK
		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Score		
W25: Devizes to Devizes Parkway	3.9	0.3	1	93.4	3	388.3	4	0.3	4	1	5	0	0	0	0	0	3.1	3	0.0	3	20781.9	3	0		26	97
G15: Little Witcombe to Seven Springs	9.1	0.8	2	66.9	3	114.4	2	0.2	3	0		2	0	0	1	3	2.4	2	0.1	4	16615.0	5	0		26	97
W23: Chippenham to Calne	10.0	0.6	1	85.8	3	251.4	3	0.1	2	0		0	1	3	2	5	1.1	1	0.1	4	18514.2	4	0		26	97
D27: Corfe Castle Link	3.1	3.2	4	16.2	1	27.4	1	0.0	1	1	5	0	1	3	0	0	1.6	1	0.6	5	16815.5	5	0		26	97
GW3: Cricklade to Lechlade	16.4	3.5	4	21.0	1	62.1	1	0.4	4	0		2	1	4	0	0	3.2	3	0.0	1	24501.2	2	4		26	97
D26: Spetisbury to Oakley	9.9	1.3	2	56.1	2	165.2	3	0.1	2	0		2	1	1	5	5	3.5	3	0.1	4	23723.4	2	0		26	97
G24: Dursley to Nailsworth	12.1	6.7	5	65.3	3	292.6	4	0.5	5	0		0	0	0	0	0	4.5	4	0.1	3	26184.3	1	0		25	109
G12: Hidcote to Chipping Campden	6.6	4.7	4	73.4	3	121.2	2	0.5	4	0		0	1	2	0	0	3.8	3	0.3	5	24947.7	2	0		25	109
G16 : Cheltenham to Cirencester	22.5	3.1	4	45.6	2	92.5	2	0.1	2	0		2	1	2	1	3	3.4	3	0.0	3	24550.9	2	0		25	109
G21: Tetbury to Kemble	12.1	6.4	4	35.9	2	81.1	2	0.1	2	1	5	0	1	4	0	0	1.9	2	0.1	3	25487.2	1	0		25	109
GS2: Tadpole Lane Link	1.4	0.7	2	207.9	4	1607.3	5	0.7	5	0		0	1	2	0	0	2.9	3	0.0	2	24745.3	2	0		25	109
W17: Cricklade to Royal Wootton Bassett	10.9	1.7	3	58.7	2	159.6	3	0.2	3	0		2	1	2	0	0	3.6	3	0.1	4	21919.8	3	0		25	109
G14: Chalford to Cirencester	13.5	5.3	4	113.6	4	154.6	3	0.1	3	0		0	0	0	1	3	2.2	2	0.1	4	25117.5	2	0		25	109
W5: Longleat to Warminster	7.1	0.3	1	50.7	2	199.0	3	0.0	1	0		2	2	4	1	1	1.0	1	0.7	5	20433.0	4	0		24	116
D13: Wareham to Studland	16.8	1.6	3	34.8	2	55.5	1	0.1	2	1	5	0	1	2	0	0	1.6	1	0.1	3	16767.6	5	0		24	116
D5: Bridport to Maiden Newton	12.4	0.5	1	9.2	1	33.1	1	0.2	3	1	5	0	1	4	0	0	1.0	1	0.0	3	16392.5	5	0		24	116
G17: Cirencester to Lechlade	22.4	5.0	4	84.6	3	208.2	3	0.2	3	0		2	0	0	0	0	4.8	4	0.0	3	24526.5	2	0		24	116
W14: Devizes to Pewsey	19.9	0.9	2	28.6	1	61.2	1	0.2	3	1	4	0	1	2	1	2	2.8	2	0.1	3	20723.5	4	0		24	116
W22: Westbury to Devizes	18.9	1.3	2	76.2	3	198.7	3	0.1	2	0		0	0	0	2	4	2.1	2	0.1	4	19147.8	4	0		24	116
G34: Stroud to Frampton on Severn	0.4	7.0	5	49.8	2	64.0	1	0.0	1	0		0	1	3	2	3	14.0	5	0.0	1	25007.5	2	0		23	122
BANES4: Monkton Combe Link	3.3	1.2	2	32.2	2	75.3	2	0.3	4	0		2	2	5	0	0	3.3	3	0.0	2	28935.7	1	0		23	122
D29: Wool to Wareham	10.4	0.9	2	40.9	2	45.5	1	0.2	3	1	5	0	1	3	0	0	1.6	1	0.0	2	18407.3	4	0		23	122
GW1: Tetbury to Malmesbury	5.7	9.1	5	71.6	3	101.9	2	0.0	1	0		0	0	0	1	2	1.7	1	0.2	4	27033.7	1	4		23	122
BANES8: Bristol to Chew Valley Lake	8.2	1.7	3	47.3	2	98.8	2	0.1	2	0		0	2	5	0	0	1.5	1	0.0	1	25231.3	2	0	5	23	122
GW4: Kemble to Cerney Wick	12.4	0.6	1	29.1	1	70.4	2	0.2	3	1	5	0	1	1	0	0	2.1	2	0.1	3	26138.8	1	4		23	122
G40: Newent to Maisemore	9.0	0.3	1	30.9	2	75.6	2	0.1	2	0		0	1	2	1	2	2.4	2	0.0	2	21115.3	3	0	5	23	122

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		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Score		
D16: Blandford Forum to Verwood	23.6	0.8	2	101.8	3	246.8	3	0.2	3	0		0	1	3	0	0	2.6	2	0.1	4	21157.5	3	0		23	122
SGW1: Old Sodbury to Chippenham	18.8	0.7	2	58.7	2	102.3	2	0.1	2	0		2	1	1	1	1	2.5	2	0.0	2	22492.4	3	4		23	122
G36: Stow in the Wold to Evenlode	4.6	25.7	5	60.6	2	110.1	2	0.0	1	0		0	2	5	0	0	5.4	4	0.0	1	22292.0	3	0		23	122
W10: Malmesbury to Royal Wootton Bassett	16.5	2.0	3	98.4	3	221.8	3	0.4	4	0		2	1	1	1	1	2.0	2	0.0	1	20770.4	3	0		23	122
W3: Wilton to Warminster	28.0	0.6	2	24.4	1	57.5	1	0.1	3	0		2	1	1	4	5	2.5	2	0.0	1	19853.2	4	0		22	133
G27: Tewkesbury to Cheltenham	7.4	2.7	3	157.1	4	145.5	3	0.1	2	0		2	0	0	1	3	2.4	2	0.0	1	23174.7	2	0		22	133
GO1: Farmington to Burford	13.8	4.0	4	15.3	1	24.9	1	0.1	3	0		0	1	4	0	0	2.4	2	0.0	1	24493.7	2	4		22	133
G31: Cirencester to Stow on the Wold	31.6	4.9	4	51.0	2	94.5	2	0.2	3	0		0	1	2	0	0	2.6	2	0.1	4	22154.7	3	0		22	133
G9: Tewkesbury to Gloucester	8.7	0.8	2	38.1	2	79.2	2	0.1	2	0		0	0	0	2	4	4.6	4	0.0	1	16798.0	5	0		22	133
SW3: Swindon to Avebury	12.3	0.2	1	33.5	2	70.9	2	0.1	2	0		0	2	4	0	0	0.8	1	0.1	3	21824.0	3	4		22	133
W20: Pewsey to Great Bedwyn	16.9	0.5	1	13.5	1	44.4	1	0.1	1	1	5	0	2	5	0	0	2.1	2	0.0	2	22431.8	3	0		21	139
BANES_NS1: Chew Valley Lake to Winscombe	18.2	1.0	2	75.3	3	130.6	2	0.1	1	0		0	1	4	0	0	1.1	1	0.0	3	25895.4	1	4		21	139
WH1: Salisbury to Hampshire	13.3	0.1	1	16.2	1	60.5	1	0.0	1	1	5	2	1	2	1	2	1.4	1	0.0	2	21837.8	3	0		21	139
W4: Amesbury to Salisbury	15.1	0.2	1	35.8	2	71.0	2	0.1	2	0		0	1	1	3	5	2.1	2	0.0	2	20716.5	4	0		21	139
W15: Calne to Marlborough	20.0	0.4	1	11.5	1	37.4	1	0.1	1	0		0	2	5	2	4	1.8	1	0.1	3	20598.3	4	0		21	139
SG4: Thornbury to Pilning	15.4	0.7	2	45.6	2	48.5	1	0.1	2	0		2	2	5	0	0	1.3	1	0.1	3	23266.3	2	0		20	144
D6: Bridport to Dorchester	30.9	0.2	1	11.4	1	32.3	1	0.1	2	0		2	1	1	2	4	1.1	1	0.0	3	18576.3	4	0		20	144
G29: Tewkesbury to Bishops Cleeve	9.6	0.1	1	104.5	3	313.0	4	0.0	1	0		2	0	0	2	4	2.1	2	0.0	2	27934.0	1	0		20	144
D31: Littlebredy to Abbotsbury	4.8	2.5	3	9.2	1	24.3	1	0.0	1	0		0	1	3	0	0	1.7	1	1.7	5	13647.0	5	0		20	144
W8: Ludgershall to Everleigh	6.9	0.9	2	58.5	2	199.5	3	0.0	1	0		0	2	4	0	0	1.3	1	0.0	2	17399.8	5	0		20	144
GWo3: Forthampton to Bushley	2.2	0.0	1	11.9	1	41.4	1	0.0	1	0		0	0	0	0	0	3.7	3	0.0	3	17289.5	5	4		19	149
G26: Tetbury to Kingscote	9.9	9.1	5	37.8	2	89.1	2	0.1	2	0		0	0	0	0	0	3.1	3	0.2	4	29117.2	1	0		19	149
G25: Nailsworth to Wotton-undge-Edge	11.9	2.0	3	86.3	3	141.1	3	0.3	4	0		0	0	0	0	0	3.8	3	0.0	2	27317.9	1	0		19	149
D3: Raymonds Hill to Bridport	21.3	0.1	1	44.6	2	106.6	2	0.1	2	0		0	1	3	0	0	1.8	1	0.0	2	17582.1	5	0		18	152
D20: East Stour to Child Okeford	16.8	0.4	1	22.1	1	55.3	1	0.1	2	0		0	2	5	0	0	1.3	1	0.0	2	17766.0	5	0		18	152
G8: Brookweir to Bream	11.8	0.4	1	21.4	1	94.5	2	0.1	2	0		0	0	0	0	0	4.3	4	0.1	4	18565.6	4	0		18	152

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		Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Results	Score	Results	Score	Results	Score	Results	Score	Results	Score	Score	Score		
G38: Cannop to Parkend	3.9	1.8	3	15.2	1	53.8	1	0.0	1	0		0	1	2	0	0	4.9	4	0.0	1	15490.0	5	0		18	152
W16: Malmesbury to Sherston	7.2	0.7	2	98.5	3	227.8	3	0.1	2	0		0	0	0	1	1	3.5	3	0.0	2	25388.2	1	0		17	156
G37: Whelford to Kempsford	2.9	1.0	2	25.9	1	62.6	1	0.3	4	0		0	0	0	0	0	5.8	4	0.0	2	22155.5	3	0		17	156
W18: Pewsey to Amesbury	22.9	0.0	1	29.9	1	56.3	1	0.0	1	0		0	2	5	1	2	0.8	1	0.0	2	22522.6	3	0		17	156
D15: Dorchester to Blandford Forum	23.5	0.3	1	24.0	1	49.1	1	0.1	2	0		2	0	0	1	1	1.1	1	0.0	3	17991.0	5	0		17	156
NSS3a: Cross to Lower Weare	2.9	1.4	2	32.2	2	99.5	2	0.0	1	0		0	0	0	0	0	4.2	4	0.0	3	22021.0	3	0		17	156
W9: Malmesbury to Chippenham	9.4	0.2	1	28.7	1	73.9	2	0.0	1	0		2	0	0	2	4	1.9	2	0.0	2	25522.5	1	0		16	161
G20: Minchinhampton to Kemble	14.4	0.8	2	21.6	1	57.5	1	0.1	2	1	5	0	1	1	0	0	1.8	1	0.0	1	23119.4	2	0		16	161
G24: Tewkesbury to Gloucester West	11.9	0.4	1	18.4	1	53.5	1	0.3	4	0		0	1	1	1	3	1.8	2	0.0	1	23030.0	2	0		16	161
W11: Cricklade to Braydon Wood	11.7	0.7	2	37.4	2	107.1	2	0.2	3	0		0	0	0	0	0	2.0	2	0.0	2	22035.5	3	0		16	161
BANES9: Bishop Sutton to Whitley Batts	4.8	0.8	2	38.3	2	100.7	2	0.2	3	0		0	0	0	0	0	3.5	3	0.0	2	25312.8	2	0		16	161
D32: Sandbanks Ferry Link	2.9	0.3	1	17.8	1	26.8	1	0.0	1	0		0	1	1	0	0	2.8	3	0.3	5	21461.5	3	0		16	161
G4: Newent to Tewkesbury	19.8	0.5	1	31.2	2	78.9	2	0.0	1	0		0	1	1	0	0	2.3	2	0.0	1	18164.3	5	0		15	167
D11: Preston to West Lulworth	12.0	0.6	1	15.6	1	30.6	1	0.0	1	0		0	0	0	0	0	1.0	1	0.7	5	16228.0	5	0		15	167
W30: Salisbury to Downton	8.7	0.6	1	58.7	2	63.5	1	0.3	4	0		0	0	0	1	2	1.1	1	0.0	1	22817.0	3	0		15	167
GWo4: Hidcote to Honeybourne	5.7	0.7	2	28.3	1	90.8	2	0.0	1	0		0	1	2	0	0	1.8	1	0.0	3	21398.3	3	0		15	167
G18: Fairford to Lechlade	7.8	1.8	3	44.6	2	228.5	3	0.0	1	0		0	0	0	0	0	1.9	2	0.0	2	26916.3	1	0		14	171
W24: Old Wardour Castle Link	5.4	0.4	1	10.9	1	31.2	1	0.2	3	0		0	0	0	0	0	0.7	1	0.0	2	16490.7	5	0		14	171
G23: Highleadon to Highnam	3.2	0.3	1	14.4	1	46.0	1	0.0	1	0		0	0	0	1	1	6.2	4	0.0	1	19251.3	4	0		14	171
DH1: Christchurch to Holmsley New Forest	8.2	0.0	1	13.2	1	46.1	1	0.0	1	0		0	1	1	1	1	1.7	1	0.0	1	19606.0	4	0		12	174
SG6: Petty France to Badminton	1.8	0.0	1	13.8	1	44.3	1	0.0	1	0		0	0	0	0	0	0.0	1	0.0	2	17502.0	5	0		12	174
W19: Avebury to Woodbrough	14.2	0.5	1	8.5	1	27.6	1	0.0	1	0		0	1	1	0	0	0.8	1	0.0	2	19329.5	4	0		12	174
BANES2: Chew Valley Lake Loop	12.1	0.6	1	20.5	1	54.3	1	0.1	2	0		0	1	3	0	0	1.5	1	0.0	1	27884.8	1	0		11	177
NSS2: Campton Martin to Priddy	9.3	0.1	1	9.5	1	32.1	1	0.0	1	0		0	1	3	0	0	0.2	1	0.0	1	23554.7	2	0		11	177
G11: Cheltenham to Bourton on the Water	19.8	0.9	2	17.6	1	44.0	1	0.1	2	0		0	0	0	0	0	1.3	1	0.0	1	24778.4	2	0		10	179

Appendix 3 Strategic Cycle Network labelled with route references