Devon County Council

BARNSTAPLE WITH BIDEFORD AND NORTHAM LCWIP

Final version

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Councillor Stuart Hughes
Devon County Council Cabinet Member with responsibility for cycling

Walking, cycling and all active travel measures are amongst the most important infrastructure improvements that the County Council can make to reduce car use, tackle the climate emergency by reducing carbon emissions and improve health and wellbeing. Measures in this plan would see the largest ever investment in active travel in North Devon and Torridge and I fully support the spirit and aims of the plan.

As Cabinet Member for Highway Management it has been a privilege to welcome the Tour of Britain to Devon multiple times with the Devon stage of the Tour being one of the most popular. The passion for cycling in Bideford and Barnstaple was shown by the support of the large crowds each year, and the LCWIP aims to encourage people's enthusiasm to walk and cycle more.

Supported by the Devon Carbon Plan, improvements to walking and cycling infrastructure in Barnstaple, Bideford and Northam over many years will not only help to achieve Devon's Net Zero Carbon goals but be transformative to people's lives.

The local cycling and walking infrastructure plan identifies gaps in the existing network, ensuring to create safe walking and cycling routes between residential, leisure and commuting routes. The measures in will enhance the public realm as well as creating more direct and safer routes for all users.

Photo courtesy of SweetSpot Group Ltd

Selaine Saxby MP
Member of Parliament for North Devon and Chair of the All Party Parliamentary Committee for Cycling and Walking

As an Active Travel Champion I am delighted to support the Local Cycling and Walking Plan for Barnstaple with Bideford and Northam. It has been excellent to see the collaborative efforts of the Town, District and County Councils to fund and prepare this ambitious strategy, which will benefit our communities in the future.

Bold infrastructure measures in the plan will boost walking and cycling rates and deliver far reaching and long lasting positive impacts on people's health and wellbeing as well as helping reach Net Zero Carbon targets in Devon. It will also help ensure that Local Plans and new development deliver on this agenda and prevent worsening traffic congestion in our towns.

This plan is exactly what is needed in response to a number of key Government strategies including the Transport Decarbonisation Plan, Gear Change and second Cycling and Walking Investment Strategy (CWIS2). We need to make walking, wheeling and cycling a natural first choice for shorter distance journeys or as part of a longer journey in the Barnstaple and Bideford areas.

My own potential cycling journey to my office from Instow has stunning views of the Taw Estuary on a flat and direct route, but many areas in northern Devon don't have the opportunity to travel actively in a safe way to work, school or for leisure. This plan would provide momentum for many thousands of people to benefit from coherent, direct, safe, comfortable and attractive routes as they go about their day to day activities.

In my role as Chair of the All Party Parliamentary Committee for Walking and Cycling I have seen many excellent schemes across the country and this plan will help northern Devon compete for much needed funding and investment in its cycling and walking infrastructure.

Photo from left to right: Dave Black (DCC), DfT Official, Trudy Harrison (Former DfT 'Minister for Cycling'), Cllr Maskell, Selaine Saxby MP, Cllr Hughes, Sarah Leeming (Sustrans).

1. Introduction

Background

Barnstaple, Bideford and Northam make up one of the highest population density areas in the Torridge and North Devon districts, with a combined population of 65,000 as of the 2011 Census. The first 2021 census data released in June 2022 showed thar the population across the Torridge and North Devon districts combined increased by 5.8% over the decade. The towns of Barnstaple and Bideford are historic ports on the Rivers Taw and Torridge, with Northam being a parish just north of Bideford on the Torridge comprising of Northam, Westward Ho! and Appledore.

The towns once formed an industrial and trading centre, with Bideford at one time being one of the largest ports in England and Barnstaple being a centre for international trade. Despite the area now being less dependent on international trade and shipping, the area is still the primary employment and education centre for North Devon. The towns also act as the key transport hubs in the region, with Barnstaple being the only major town with a national rail station and Bideford still being an active port.

The area is also famous for its geography, with the North Devon Biosphere Reserve, a UNESCO site established in 1976 covering the basins of the Rivers Taw and Torridge. Along with the area being situated next to the North Devon AONB on the coastline, and Exmoor to the East and Dartmoor to the South, it is a popular tourist destination at all times of year. The local environment makes the area a popular tourism location, with the tourism industry in the area estimated to be worth over £500 million, supporting 11,100 local jobs and attracting an estimated 6.3 million visitors in 2016i.

The area already benefits from existing cycling infrastructure, notably with the Tarka Trail. Named after Henry Williamson's book Tarka the Otter set along the rivers Taw and Torridge, the route follows former rail lines, creating a largely flat, direct and traffic-free route between the major towns along the trail. The trail provides links connecting Braunton, Barnstaple, Bideford/East-the-Water, Great Torrington and Meath.

As with other areas both within the county and nationwide, Barnstaple, Bideford and Northam are facing increasing pressure to reduce carbon emissions. Devon County Council, North Devon District Council and Torridge District Council, declared a climate emergency in 2019 with the vision of a net-zero carbon Devon. Three of the key targets in the Interim Devon Carbon Plan include:

- Fossil fuels no longer an energy source – transition towards walking, cycling and using electric vehicles
- Energy consumption is minimal – Drive less, being active and healthy
- Community action for a net-zero Devon – Communities are at the centre of change

The LCWIP area is also faced with the challenge of delivering more new housing over the coming decade to meet the increase in housing demand, which has the potential to increase car usage across the area if no viable alternatives are available.

Investment in cycling and walking schemes can help address these challenges: helping to manage the transport impacts of growth; reducing congestion; supporting improved public health through active travel; providing access to centres of employment, learning and skills training; cutting carbon emissions; and, helping bring about a green recovery following the Covid-19 crisis. It can also deliver public realm improvements, further enhancing the built and natural environment of the area.

LCWIP Process

Local Cycling and Walking Infrastructure Plans (LCWIPs) are a strategic approach to identifying cycling and walking improvements required at a local level. They enable a long-term approach to developing networks and routes and from a vital part of the Government's strategy to increase the number of trips made on foot or by cycle. LCWIPs will be instrumental in leveraging funding from the newly established Cycle Infrastructure Fund, along with other national and local funding streams. LCWIPs are intended to:

- Plan for cycling and walking using evidence and data on existing and future potential demand;
- Target investment where it can have the greatest impact;
- Identify cycling and walking infrastructure improvements in readiness for funding bids; and
- Plan cycling and walking networks that meet core design outcomes and the needs of users.

For the Barnstaple, Bideford and Northam areas, this process and the resulting outputs will represent an evidence-based approach to focus future investment for the foreseeable future where the most benefit can be realised. The government has published guidance on the preparation of LCWIPs, setting out the following six stage process:

- Stage 1: Determine the scope – establish the geographical context and arrangements for governing and preparing the plan;
- Stage 2: Gathering information – identify existing walking and cycling patterns and potential new journeys. Review existing conditions and identify barriers to cycling and walking. Review related transport and land use policies and programmes;
- Stage 3: Network planning for cycling – identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the improvements required;
- Stage 4: Network planning for walking – identify key trip generators, core walking zones and routes, audit existing provision and determine the improvements required;
- Stage 5: Prioritising improvements – prioritise improvements to develop a phased programme for future investment; and
- Stage 6: Integration and application – integrate outputs into Local Plan policies, strategies and delivery plans.

The remainder of this document details how the LCWIP was developed and sets out a prioritised programme for its delivery.

Geographical Extent

The LCWIP study area covers much of the estuary from Bideford to Barnstaple, including the built-up areas of Fremington, Bickington, Sticklepath and Roundswell west of Barnstaple, as shown in Figure 1-1. This geographical extent includes the key parishes of Bideford and Barnstaple towns, Northam, Pilton West and Fremington. It also includes some areas beyond the boundaries of these parishes which have been identified as growth areas in the joint North Devon and Torridge local plan (2011-2031).

The main lengths of the Tarka Trail between settlements will not be considered for improvement under the proposals of the LCWIP. The Tarka Trail is covered under the Cycling and Multi Use Trail Network Strategy (Devon County Council). However, links connecting to the Tarka Trail will be considered, due to its existing status as a high-quality traffic-free route within the study area.

This LCWIP will consider how connections will link to onward destinations in the wider area where applicable, however it will not provide any specific recommendations outside of the LCWIP study area.

Governance and Engagement

The client group for this project is comprised of Devon County Council, North Devon District Council, Torridge District Council, Barnstaple Town Council, Bideford Town Council and Northam Town Council.

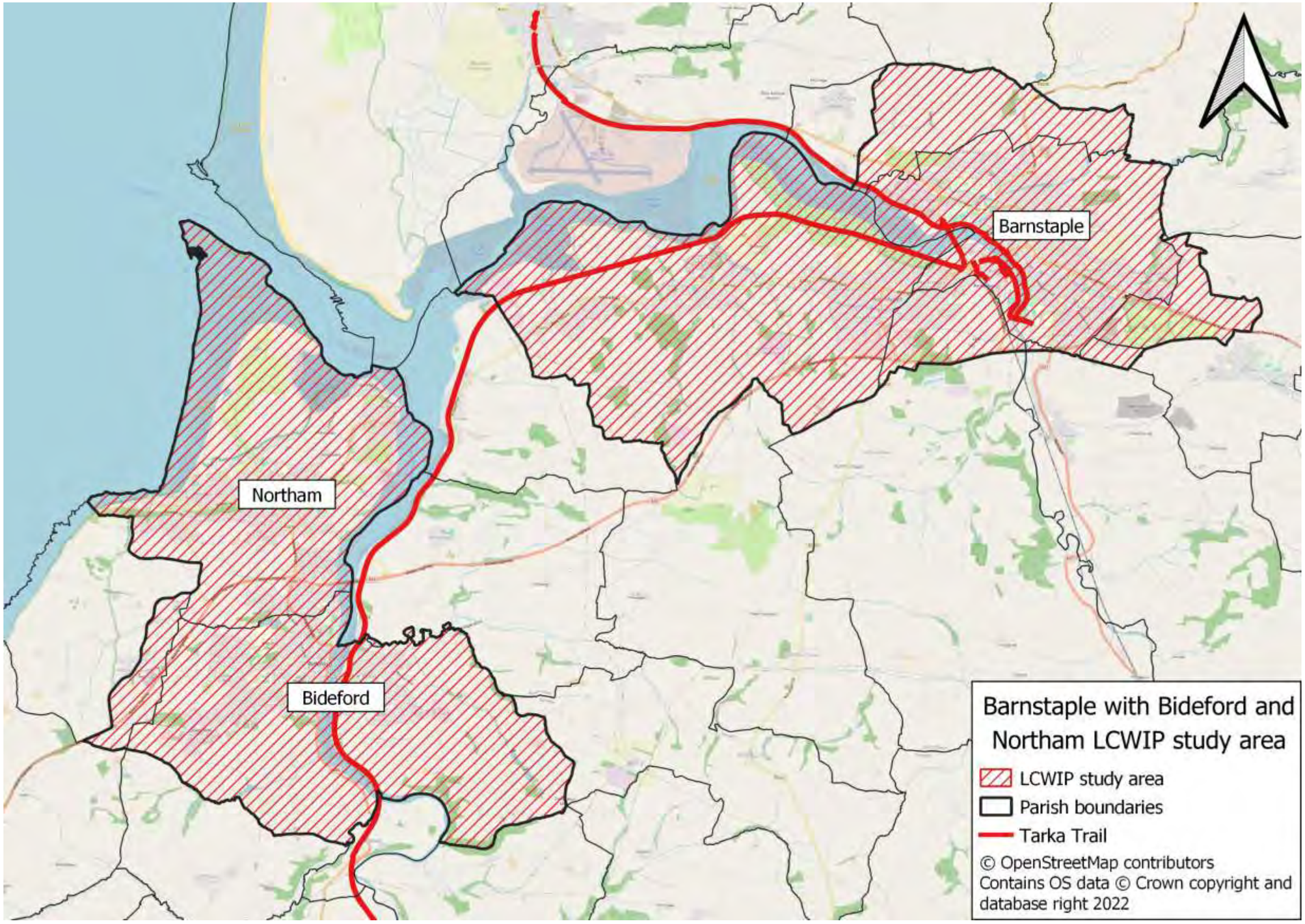
This document has also been informed by engagement with key internal and external stakeholders. Those approached include:

- Community stakeholders, including cycling and walking groups;
- Council officers (planning, transport & environment teams);
- County and District Councillors;
- Local Delivery partners; and
- Town and Parish Councils.

Funding for the Barnstaple with Bideford And Northam LCWIP was Provided by:

- Devon County Council
- North Devon Council
- Torridge District Council
- Barnstaple Town Council
- Bideford Town Council
- Northam Town Council

Figure 1-1 - Geographical extent of the LCWIP study area



2. Gathering Information

The Case for Walking and Cycling

The Department for Transport's (DfT) Gear Change and Cycling and Walking Investment Strategy (CWIS1 and CWIS2) documents present a clear ambition to make walking and cycling the natural choice for shorter journeys or as part of a longer journey, including the aim to double cycling activity by 2025 and for 50% of all journeys in towns and cities to be walked or cycled by 2030. The benefits of achieving this outcome would be substantial, supporting public health and wellbeing, more vibrant towns and public spaces, and low carbon travel patterns becoming commonplace.

In 2020 the Government announced a £2 billion plan to boost cycling and walking both during and after the Covid-19 lockdown. In total, across the CWIS2 period from April 2021 and March 2025, the total projected investment into active travel is an estimated £3.8 billion. The Department for Transport also announced that dozens of new "Mini-Holland" schemes will be created. These Low-Traffic Neighbourhood pilots are modelled on Dutch schemes and make local streets safer for walking, cycling and play, while maintaining motor vehicle access.

Within Barnstaple, Bideford, Northam and surrounding areas, there are clear opportunities to better connect people and places with targeted investment in new and improved active travel infrastructure. Devon County Council, the district and parish councils share the CWIS2 ambition to provide more direct, convenient, safe and attractive options for local walked or cycled journeys. Devon County Council are also committed to adherence to the principles set out in LTN 1/20 for the implementation of new walking and cycling infrastructure and look forward to engaging with Active Travel England in the design, development and delivery of DfT and Council aims.

Responding to the Climate Crisis

Devon County Council and the district councils of North Devon and Torridge have declared a climate emergency and have signed the Devon Climate Declaration. Transport contributes approximately 27% of Devon's greenhouse gas emissions (GHG) and is the sector with the largest GHG emissions across the County. Reducing transport GHG will be essential to meet both national and local climate commitments. The Devon Carbon Plan identifies that reducing the need to travel and shifting to sustainable transport options such as cycling and walking are the most important priorities to tackle transport emissions.

Supporting Housing and Employment Growth

The identified housing requirement within the LCWIP study area between 2011 and 2031 set a target of 11,600 new dwellings. With approximately 1,350 dwellings built up to 2017, the majority of this housing need will need to be constructed over the next decade. Additionally, allocations have been made for new employment sites, with many of the land allocations within the Local Plan being mixed use, further necessitating strong transport between new development sites and existing residential and employment areas. While many of the developments set to be constructed on these allocated sites will provide internal walking and cycling provisions, links to onward destinations from these sites are also required to enable new and existing residents to adopt sustainable travel alternatives.

Further future growth will be set out in the Local Plan review, which is currently being developed. With the additional pressure on the transport network across the study area from this growth, there is a need for a shift towards cycling and walking along with wider transport improvement schemes and a cohesive plan to deliver new infrastructure within an updated Infrastructure Delivery Plan to support the new Local Plan.

Improving Health and Wellbeing

Encouraging and enabling more cycling and walking can also play a role in improving public health and wellbeing. 42% of women and 34% of men in England are not active enough for good health, with physical inactivity costing the NHS more than £450 million each year[ii] and an estimated cost of £7.4 billion a year to the economy each year overall[iii]. Studies have shown walking and cycling reduce the risk of premature mortality, reduces the risk factor of a number of diseases including cardiovascular disease, some cancers and Type II diabetes, and have positive effects on mental health.

Creating a coherent cycling and walking network accessible to all has the potential to improve the health and wellbeing of the entire population, both young and old. The mental health and neurological benefits of walking and cycling in particular include a reduced a risk of dementia. Many areas in Northern Devon have an older population compared to the UK median age of 40.4 years old, with all but one of the parishes within the study area having a median age of 41 or higher. Meanwhile, studies have also found that[iv] children who walk or cycle to school tend to be more attentive and achieve better results, while cycle friendly environments promote more physical activity in later years, leading to general wellbeing benefits to people of all ages.

Focussing on inclusive "All Ages and Abilities (AAA)" design and ensuring cycling is accessible for everyone are core design considerations when developing and delivering schemes through the LCWIP process.

Supporting Economic Growth

Beyond the financial benefits relating to healthcare, encouraging and enabling walking and cycling has wider economic benefits. The Department for Transport's Gear Change strategy for cycling and walking states that *"well planned improvements to the walking environment can lead to an up to 40% increase in shopping footfall and that cycling contributes £5.4 billion to the UK economy per year, including supporting 64,000 jobs".*

A 2016 independent review[v] into national and international studies researching the economic value of cycling also highlighted that:

- Per square metre, cycle parking delivered 5 times higher retail spend than the equivalent area of car parking
- A compact town optimised for walking and cycling can have a spend per metre rate 2.5 times higher than a typical urban centre
- Cycling schemes achieve high benefit to cost ratios, typically between £5 and £19 for every £1 spent, with some interventions providing a ratio of up to £35 per £1 spent
- Cycle tourists, on average, spend around 9% more per head per trip

The same review highlighted how employees and employers can also benefit from improved cycling infrastructure with the facilitation of cycling to work leading to lower staff turnover, boosting productivity and reducing absenteeism, as regular cyclists on average take one less sick day per year.

Existing Travel Patterns (pre Covid-19)

The study area benefited from a higher-than-average rate of cycling to work as of the 2011 census, with 2.3% of residents reporting that they cycled to work compared to the England average of 1.9%. Walking rates reported in the 2011 Census were also high, with 11.8% of people walking to work compared to the England average of 6.9%. The urban area of Barnstaple has even higher rates, with 4.5% of residents cycling to work and 17.2% walking to work, among those employed in the area.

Despite these higher-than-average active travel rates, driving and car passenger rates when travelling to work are also higher than the England average at 64.3% compared to 59%. Road schemes in the area such as the Western Bypass in Barnstaple (opened 2007) and the current improvements to the North Devon Link Road highlight the dependency many people in the region have on cars, with many journeys being to and from rural communities and larger urban areas. Only 23% of households in the study area do not have access to a car compared to the England average of 26%, with 29% of households having two or more cars.

Each of the towns serve different purposes for residents and visitors to the area, with different travel patterns for each:

- Barnstaple is the largest town in northern Devon. It has a large town centre with multiple large retailers, cafes, shops and an indoor market, as well as numerous industrial and retail parks towards the outskirts of the town. This leads to high volumes of commuter and shopping traffic heading into the town. Petroc college has a campus in Barnstaple, making it a centre for higher and further education in North Devon, with multiple other schools and colleges across the town. Barnstaple is served by the only National Rail line connecting North Devon to the wider rail network, with a station south of the river offering an hourly service to Exeter. There is also a key bus terminal to the east of the town centre.
- Bickington, Fremington and Yelland are smaller villages just west of Barnstaple comprised primarily of housing with schools and large area of industrial and commercial space in Roundswell. These villages are all connected to Barnstaple via the B3233 corridor.
- Bideford (and East-the-Water) are on opposite sides of the River Torridge but are connected via the historic Bideford Longbridge. Bideford has a town centre for shopping, along with schools, retail and industrial estates around the town, and an active port at its centre.
- Northam, Westward Ho! and Appledore are located north of Bideford. Much of the area is focused on tourism, with a lower workplace population than the other locations. Appledore shipyard is a significant regional employer and one the few remaining shipbuilding yards in the country.

Commuting data from the 2011 census, shown in Appendix A, shows how many people were commuting via all transport methods into the study area. These figures highlight high volumes of commutes to the study area are from local, many which are within relatively cyclable or walkable distance, highlighting the opportunity to encourage behavioural change towards active travel for a high number of regular journeys across the study area.

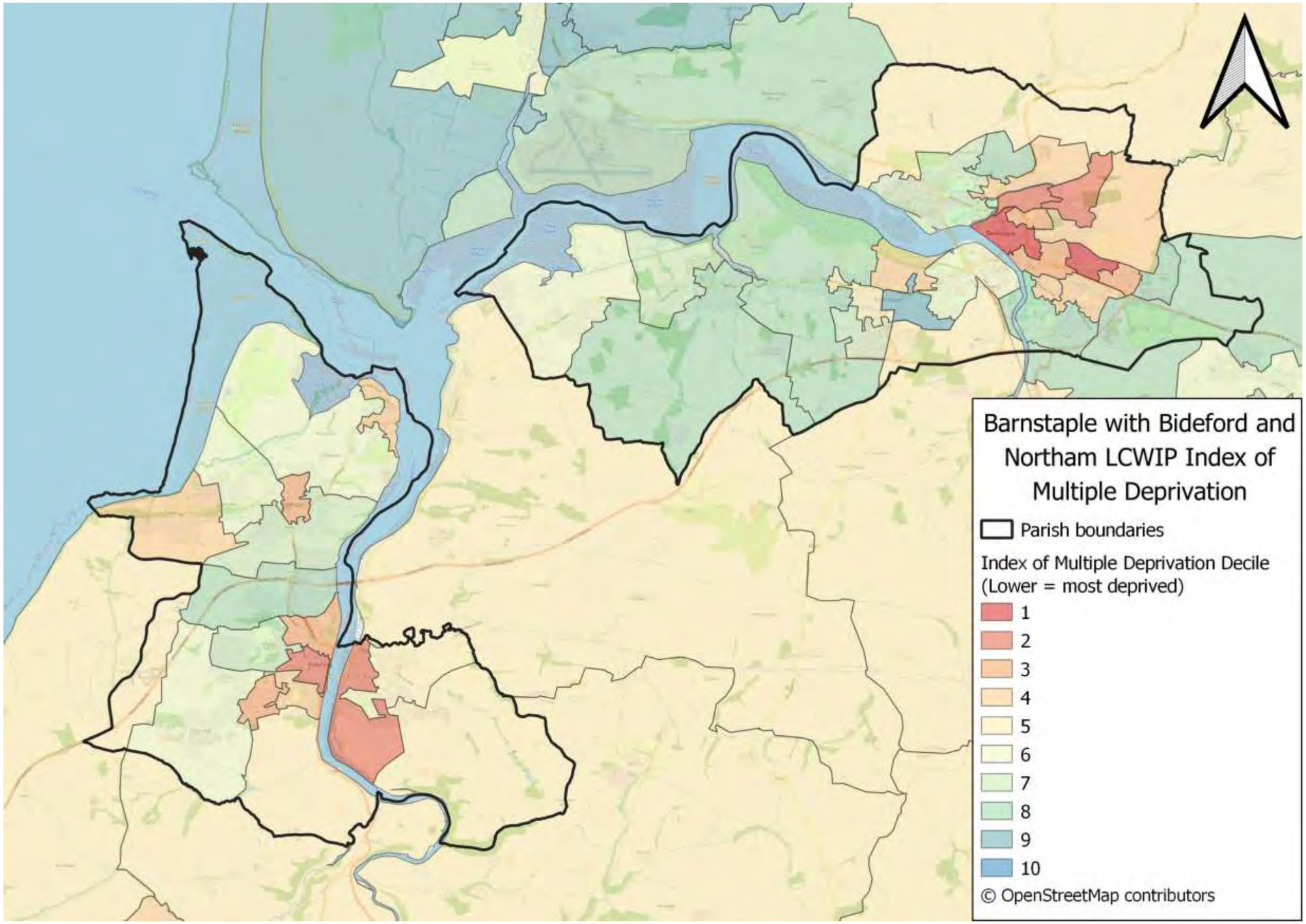
Social Demographics

As seen in Figure 2-1, many areas within the study area fall in the lower 50% deciles of the Indices of Deprivation (IoD), a measure of relative deprivation across England. Two of the areas within the LCWIP study area fall within the 10% most deprived areas in England, with a further four of the areas in the lowest 10-20%. Due in part to this and the nature of the old town centres with limited space for parking, some areas within the centre of Barnstaple and Bideford have relatively low levels of car ownership. In some Census Output Areas within the study area, notably around Barnstaple and Bideford Town Centres, less than a third of households have access to a car.

The LCWIP study area has a higher average age compared to the average across England. As of the 2011 Census, 22% of residents being aged over 65, while less than three in five (58%) residents are within the normal working ages of between 18 and 64. Northam, Pilton West and Tawstock are the areas with the oldest average ages, with 30% of residents in each being over 65 years old. Meanwhile, Barnstaple and Bideford both have much larger working aged populations.

Around 9% of the population in the LCWIP area are between 10 and 17, the age range where children and teenagers are more likely to be able to walk, scoot or cycle to school by themselves, which is broadly in line with the national average of 9.5%

Figure 2-1 - Index of Multiple Deprivation (IMD) Deciles within the study area



Effects of the Covid-19 Pandemic

As the first lockdown started and with many people working remotely, on furlough and limited in the activities available to them, many turned to cycling for leisure and exercise. Since the start of the pandemic, cycle sales had increased by 60%, with e-bike sales more than doubled[vi]. DfT data[vii] also shows that, compared to 2019, miles cycled per person increased by 62% and walking miles increased by 7% compared to 2019. There was also an increase in average cycling trips by 26% and a 46% increase in pedal cycle traffic over the same period.

Despite the drop in tourism following restrictions on overnight stays and hospitality, much of the Tarka Trail saw cycling count increases between 20% and 70%, with the only site with a decrease of 2% being the Barnstaple Rail Station cycle link – likely in part due to the closure of the nearby Iron Bridge NCN3 route over the River Taw for maintenance and the decrease in residents cycling to work while work from home guidance and furlough was in place. Following the lifting of restrictions, while public transport patronage remains below pre-pandemic levels and car usage has returned to pre-pandemic levels, the average rate of cycling across the first 6 months of 2022 was 28% greater than baseline comparison levels pre-pandemic.

Despite the restrictions on travel and guidance encouraging remote working no longer being in effect, the effects of the lockdowns and restrictions have led to ongoing changes in travel habits. In a report by the Office for National Statistics published in May 2022[viii], 84% of workers surveyed who had to work from home due to the pandemic reported that they planned to carry out a mix of working at home and their place of work in the future. With many working residents in the area potentially continuing with a hybrid working model, there's an opportunity to encourage change away from private car use for the days people do travel to work.

Policy context

National policy and Plans

Cycling and Walking Investment Strategy 2 (DfT 2022)

Outlines the ambition for cycling and walking uptake, including the aim to make cycling and walking the natural choices for shorter journeys or as part of longer journeys by 2040. Outlines total investment into active travel from government up until 2025, with forecasted total funding for active travel of £3.78 billion between April 2021 and March 2025.

Net Zero Strategy: Build Back Greener (2021)

Sets out the government's plan for the United Kingdom to achieve net zero greenhouse gas emissions (GHG). Includes key commitments to increase the share of journeys taken by cycling and waling, as well as investing in thousands of miles of segregated cycle lanes and more low-traffic neighbourhoods, with the aim that half of all journeys in towns and cities are cycled or walked by 2030.

Gear Change: A bold vision for cycling and walking (DfT 2020)

Sets out Government's vision for delivery of far higher quality cycling and walking infrastructure, with local authorities being expected to deliver a step-change in the Level of Service for cycling and walking. It announced the establishment of Active Travel England who will assess local authorities' performance on active travel, with findings influencing the funding authorities receive across all transport modes. The accompanying Local Transport Note 1/20 Cycle Infrastructure Design set out new ambitious cycle design standards.

Cycling and Walking Investment Strategy 1 (DfT 2017)

Aims to make active modes a natural choice. Locally targeted investment via LCWIPs enables people to be connected with places – creating vibrant, healthier and productive places and communities.

Future of Mobility: Urban Strategy (DfT 2019)

Nine principles to address the challenge of transforming towns and cities to meet current and future transport demands. Includes the principle that 'walking, cycling and active travel must remain the best option for short urban journeys.

Everybody Active, Every Day (Public Health England 2014)

Indicates how the built and natural environment impact on the travel choices people make and highlights the necessity for effective urban design and transport systems which create 'active environments' to promote more liveable communities.

Clean Air Strategy (DEFRA 2018)

Outlines how achieving modal shift is key to delivering emissions reduction. LCWIPs have a part to play in tackling the climate emergency by reducing emissions through the delivery of walking and cycling options for journeys.

Inclusive Transport Strategy (DfT 2019)

An inclusive transport system must provide inclusive infrastructure, with streetscapes designed to accommodate the needs of all people. LCWIPs identify improvements to build active travel networks and key routes fit for all users.

Local Policy

The existing policy relating to walking and cycling are detailed across a range of policy documents outlined below. These documents provide a strong basis for future policy by displaying support for cycling and walking, across both leisure and urban routes. Several policy documents listed below, notably the Local Plan, are currently being reviewed, providing a key opportunity for the LCWIP to guide upcoming key policy decisions relating to the integration of future walking and cycling proposals.

- Barnstaple & Bideford Area Transport Strategy (DCC 2016)
- Transport Infrastructure Plan - Delivering Growth in a low carbon environment (DCC 2020)
- North Devon and Torridge Local Plan 2011-2031 (NDDC and TDC, Adopted 2018)
- Cycling and Multi-Use Trail Network Strategy (DCC 2015)
- Devon and Torbay Local Transport Plan 3 (LTP3) (DCC 2011-2026)
- Devon Carbon Plan (2022)

Policy Support for Cycling and Walking

Existing local policy sets out strong levels of support for improving walking and cycling, as well as setting out the ambition to increase levels of active travel. Some examples include:

- Local Plan Policy ST02: Mitigating Climate Change – Development will be expected to make a positive contribution towards social and economic sustainability. This includes ensuring developments reduce the need to travel by car and facilitating a step-change towards walking, cycling and public transport;
- Local Plan Policy ST10: Transport Strategy – Emphasises the importance of meeting the needs of local communities and visitors by improving interchanges for transfer between modes of travel, developing quality strategic recreational routes for local pedestrian, cycle and bridleway networks, and reducing the need to travel by car;
- LTP3 Market and Coastal Towns Strategy aims to “Make Devon the place to be naturally active” through investment in walking and cycling;
- Devon Transport Infrastructure Plan states, “Schemes will be supported where they achieve one or more of the following: modal shift towards public transport; modal shift towards active travel; increase in electrification; reduction in road capacity where this supports sustainable travel or improved air quality;
- Growth areas and Local Plan allocations and designations
- The North Devon and Torridge Local Plan sets out the requirements for new dwellings and employment land area across the two district areas between 2011 and 2031. As previously stated, the joint Local Plan is currently in the process of being reviewed and updated. Whilst it is too early for the LCWIP to consider any potential future development allocations, which will ultimately be identified through the Local Plan review, there is an important opportunity for the LCWIP to be integrated with the Local Plan and inform the supporting transport evidence and Infrastructure Delivery Plan.
- The Local Plan states that its strategic aims and objectives seek to promote economic and job growth and provide for new homes to meet northern Devon’s future needs, as well as land for other activities including retail, sport and leisure. The Local Plan also seeks to support the environment of the UNESCO Biosphere Reserve, and protect and enhance valued environmental assets, including the undeveloped coastline and estuary.

The allocations and progress as of 2017 for the areas covered by this LCWIP are as shown in Table 2-1, which shows a requirement of over 10,600 new dwellings at an average of 530 new dwellings built each year, and 42 hectares of new employment land by 2032 across the North Devon and Torridge districts.

Figure 2-2 on the following page shows the allocations from the Local Plan, which also includes some footpath and cycle route proposals as sent out within the Local Plan. Notably, the Local Plan includes proposals for the following cycle connections:

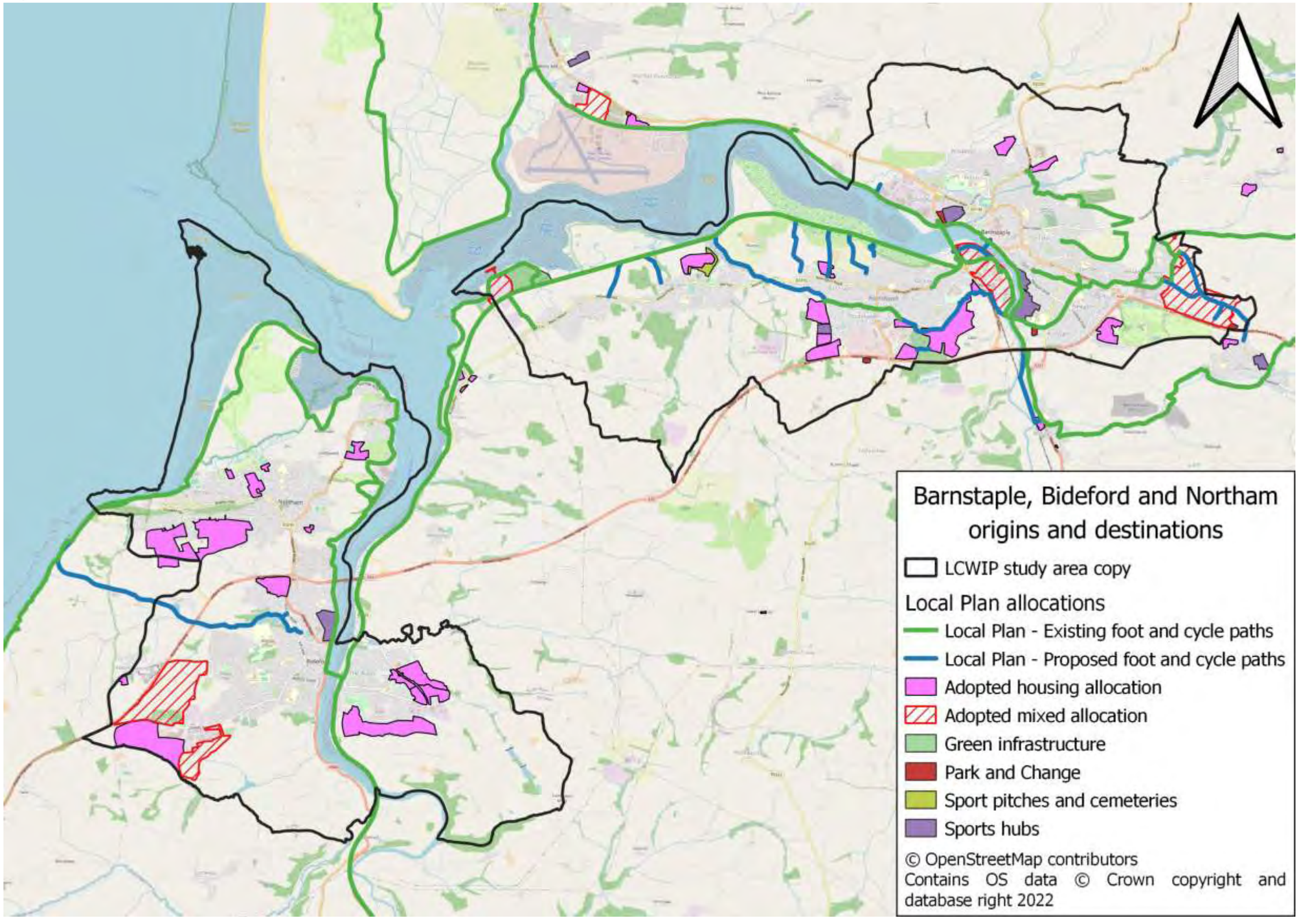
- BAR 01 – Westacott Strategic Extension (BAR 20) – A new pedestrian and cycle bridge linking to Landkey
- BAR 02 – Larkbear Strategic Extension – A pedestrian and cycle bridge over the A361 and rail line
- BAR 04 – Mount Sandford Green – New or improved cycle and pedestrian links across the A361
- BAR 12 – Anchorwood Bank – Cycle and pedestrian links
- BAR 13 – Seven Brethren – Cycle links along the river Taw between the Longbridge and Iron Bridge
- BAR20 – Strategic Green Infrastructure Links – Cycle and pedestrian links from Pottington, Sticklepath and Bickington to the Tarka Trail, improved cycle links between Rock Park and Bishops Tawton and a new pedestrian and cycle link across the River Taw between Anchorwood Bank and the Town Centre.
- BID01 – Integrated cycle links between Abbotsham Road and Clovelly Road
- BID04 – Integrated cycle links with Manteo Way and Gammon Road and link to Tarka Trail
- BID08 – Create a new walking and cycling trail along the former Bideford to Appledore Railway called the Kenwith Valley

Table 2-1 - Local Plan allocations for dwellings and employment land (2011-2031)

Town	Dwelling completions 2011-2017	Planning commitments	Allocations	Total identified Supply	Planned Housing Requirements (dwellings) 2011-2031	Planned Employment Land (hectares) 2011-2031
Barnstaple*	375	473	3,162	4,163	4,139	21.6
Bideford	766	322	2,815	4,129	4,127	20.4
Fremington / Yelland*	63	259	527	849	426	0
Northam	143	140	1,735	2,110	1,916	0
Total	1,347	1,194	8,239	11,251	10,608	42

* Barnstaple figures include some of the housing commitments from the adjacent parishes: Bickington and Roundswell parts of Fremington, Landkey, Pilton West and Tawstock.

Figure 2-2 - Local Plan allocations for Barnstaple, Bideford and Northam



3. Network Planning for Cycling

Existing Cycle Network, Journeys and Barriers

Across the entire study area around 2.3% of residents cycled to work as of the 2011 census. However due to the mix of urban and rural locations covered by the study area the rate varies across the major towns. Figure 3-1 shows the percentages of people cycling to work in each of the census output areas. This map highlights that urban areas to the eastern extent of the study area have relatively high volumes of cycling journeys. Barnstaple, the largest town in the study area, had a cycle to work rate of 4% in the 2011 census, over twice the England average of 1.9%. Within the town, 36 of the 79 census output areas had cycling rates of over 4%, with only 12 areas being at or below the England average of 1.9%. Bideford and Northam had much lower levels of cycling to work, with none of the census areas in these parishes having a cycle to work rate over 4% and 21 out of the 99 census output areas with cycling rates above the national average.

Census data shows that around 54% of residents in the study area who commute to work at a fixed place travel less than 5km, with 31% travelling less than 2km to work, highlighting a significant potential and an opportunity for more commuter cycling journeys, provided that the right cycling infrastructure is in place to support cyclists of all abilities.

Since the census in 2011, cycle volumes have continued to grow across the Tarka Trail. Volumes have increased at most of the 5 permanent count sites shown in Figure 3-1. Table 3-1 shows the average daily volume of cyclists at these 5 sites, as well as the change across years.

Table 3-1 - Daily average volume and change at permanent cycle count sites

Counter Location	2010	2019	Change 2010/2019	2020	Change 2019/2020
East the Water (Tarka Trail)	203	178	**-12%**	299	**68%**
Eastern Avenue, Barnstaple	100	97	**-3%**	69	**-29%**
Pottington, Barnstaple (Tarka Trail)	290	351	**21%**	423	**20%**
Barnstaple, Railway Station Link Cycle	234	311	**33%**	305	**-2%**
Fremington Quay (Tarka Trail)	205	283	**38%**	364	**29%**

Tarka Trail

Focused around the Rivers Taw and Torridge, the 30-mile shared use trail was initially opened in 1991 with the section between Barnstaple and Bideford before it was extended in 1997. Since its opening, the Tarka Trail has been a popular tourist and leisure route, making it a key contributor to the local hospitality industry and other businesses including cycle hire providers.

Beyond being a popular leisure route, the trail provides existing traffic-free connections between Bideford, Barnstaple and Braunton, providing the option of commuting by bike between Bideford, Bideford, Braunton and elsewhere. Census data indicates that people do regularly commute by bike between these towns, despite a near 50-minute journey between Barnstaple and Bideford Longbridges.

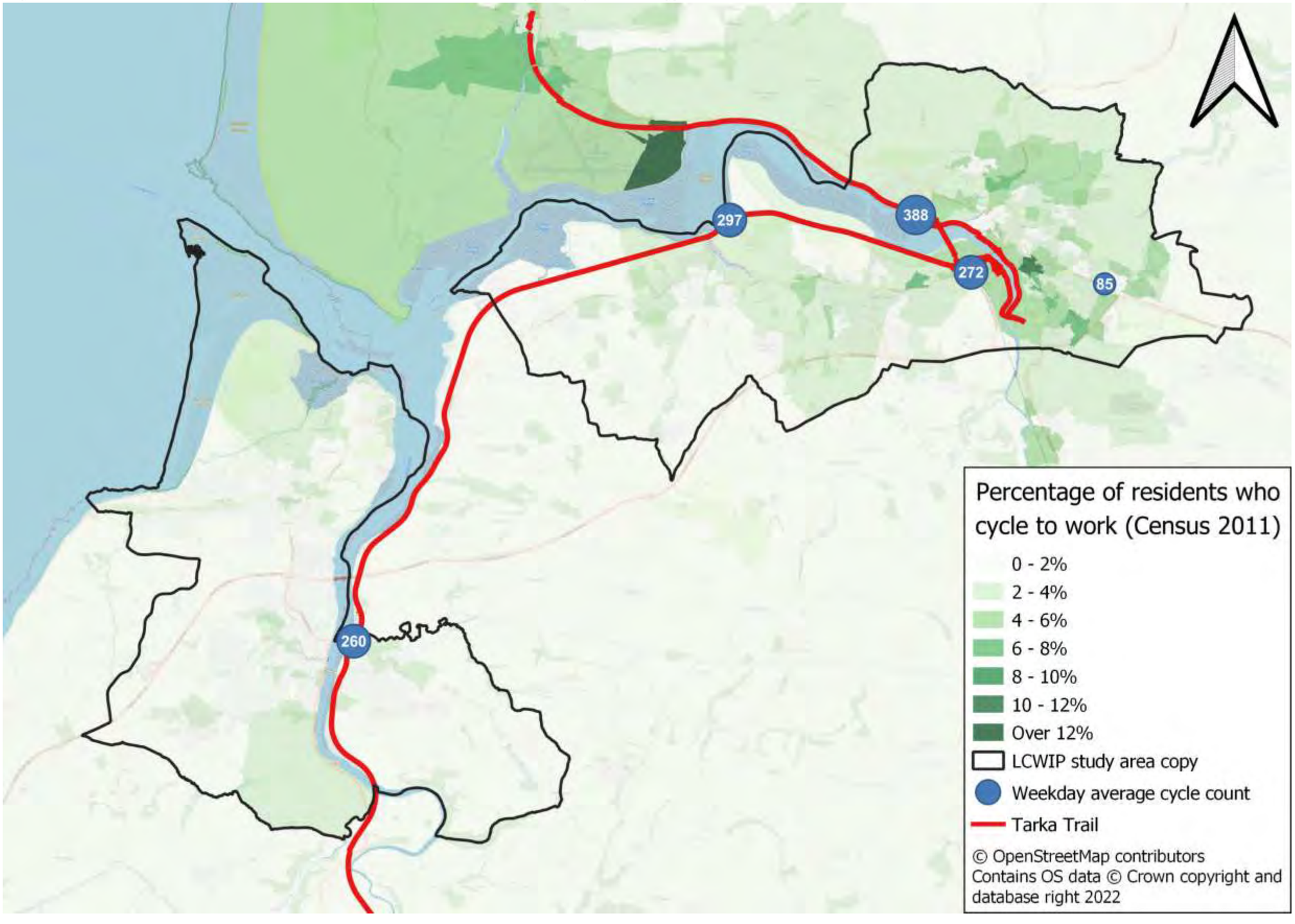
The trail, however, does not have many traffic-free links to Yelland, Fremington and even the Bickington areas. Further connections to the trail, such as those identified in the Local Plan, have the potential to provide easier access to the trail for commuters and provide a quicker route to increase connections to the key employment areas with minimal interventions and will represent relatively simple ‘quick wins’.

Impacts of Covid-19

Cycle count locations around the study area can show how cycle use changed both before and during the Covid-19 pandemic. As seen in Table 3-1, cycle volumes across three of the five permanent cycle count sites in the study area had increased over the decade between 2010 and 2019. Despite decreases in cycle volumes at East-the-Water and Eastern Avenue over that period, overall cycle volumes across all five locations increased by 18% between 2010 to 2019, indicating a steady increase in usage.

With the onset of the Covid-19 pandemic in 2020, and the lockdowns across the following year, cycling enjoyed a nationwide resurgence as people looked for new ways to stay active and explore under travel restrictions. Cycling across the sites increased by 20% from 2019 to 2020. The two more utility journey orientated sites near Barnstaple Railway Station and Eastern Avenue logged decreases in volumes, likely in part due to the prevalence of remote working and furlough reducing overall commuting journeys by all modes. Despite workplace and travel restrictions being lifted, there is a strong opportunity to continue with this momentum and encourage wider cycling uptake for cyclists of all abilities.

Figure 3-1 - Residents that cycle to work and cycle count volumes (average weekday)



Existing Cycle Journeys

Figure 3-2 shows anonymous data from Strava user routes as a heatmap. Routes logged via Strava tend to be more leisure orientated, with many journeys being longer trips along routes that may not necessarily see high levels of daily usage by commuters. However, this data does highlight high usage of the Tarka Trail and shows the importance of onward cycle routes around the town centres. The heatmap also shows high leisure cycling around Northam and in the Bickington area.

Figure 3-3 shows the top 30% used estimated routes taken by people who reported to cycle to work in the 2011 census. While respondents to the census did not report the route they cycled to work, these estimates are based on what routes people would most likely use when travelling between respondents' origins and destinations. As this is only based on commuter data it does not represent demand for other types of journeys, such as for leisure or shopping, but does indicate where people are making regular journeys.

This map highlights how the highest cycle flows occur within and around Barnstaple town centre, as well people using the Tarka Trail to commute between towns on the route. It also highlights flows From Yelland along Bickington Road and Yelland Road, trips to Roundswell, along Eastern Avenue, as well as journeys heading between Northam, Bideford and East-the-Water.

Figure 3-4 shows the estimated routes taken by children cycling to school as of the 2011 census, representing another type of frequent cycling journey beyond commuting. The distances for school journeys are usually shorter than commutes.

Many of the busiest school routes are in Barnstaple, around the Pilton area, and between Sticklepath to South Barnstaple via the Iron Bridge. There are also flows around Barnstaple town centre, from Landkey and Bishops Tatton and Fremington. The most notable flows in Bideford and Northam are across the Longbridge, which currently has no dedicated provision for cyclists, which may therefore be uncomfortable for most cyclists to use.

Pedestrian and Cycle Casualties

Figure 3-5 shows the cycle and pedestrian casualties within and around the study area as recorded by the police. This map does not show unreported near misses and injuries, notably along the Tarka Trail, however it does provide insight into which on-road areas are potentially more dangerous for pedestrians and cycle users.

Between 2016 and 2020 there were 3 reported pedestrian fatalities, two of which occurred on A-roads (A39 and A361) and one occurring in Barnstaple town centre. Of all incidents, only 3 included both a cycle and pedestrian. A number of the casualties occurred around the town centres and main corridors, including people cycling and walking along:

- Eastern Avenue, Barnstaple
- Rolle Street, Barnstaple
- Bickington Road, Fremington
- New Road/Bideford Longbridge
- Kingsley Road, Bideford
- Clovelly Road, Bideford

Many of the collisions recorded on main junctions, roundabouts and junctions leading to destinations such as supermarkets. Collisions have also been recorded on both the Bideford and Barnstaple Longbridges. Notably, multiple collisions were recorded at the roundabout to the west of Bideford Longbridge which acts as the only connection across the River Torridge other than the busy A39 bridge and the most direct link to the Tarka Trail. Larger maps for both Barnstaple and Bideford can be found in Appendix A.

Public Requests

Figure 3-6 shows a map of the cycleway suggestions from Widen My Path, a website where users can highlight locations where they would like to see improvements to cycling infrastructure. Whilst many of the suggestions along the Tarka Trail are highlighting the routes existence, the suggestions around the towns highlight some areas existing cyclists have live concerns about. This included confusing junctions, poor signage, areas with high traffic speed and some suggested improvements such as where modal filters or contraflow routes could go.

Figure 3-2 - Strava cycle flows. Brighter colours indicate increased use (Source: Strava)

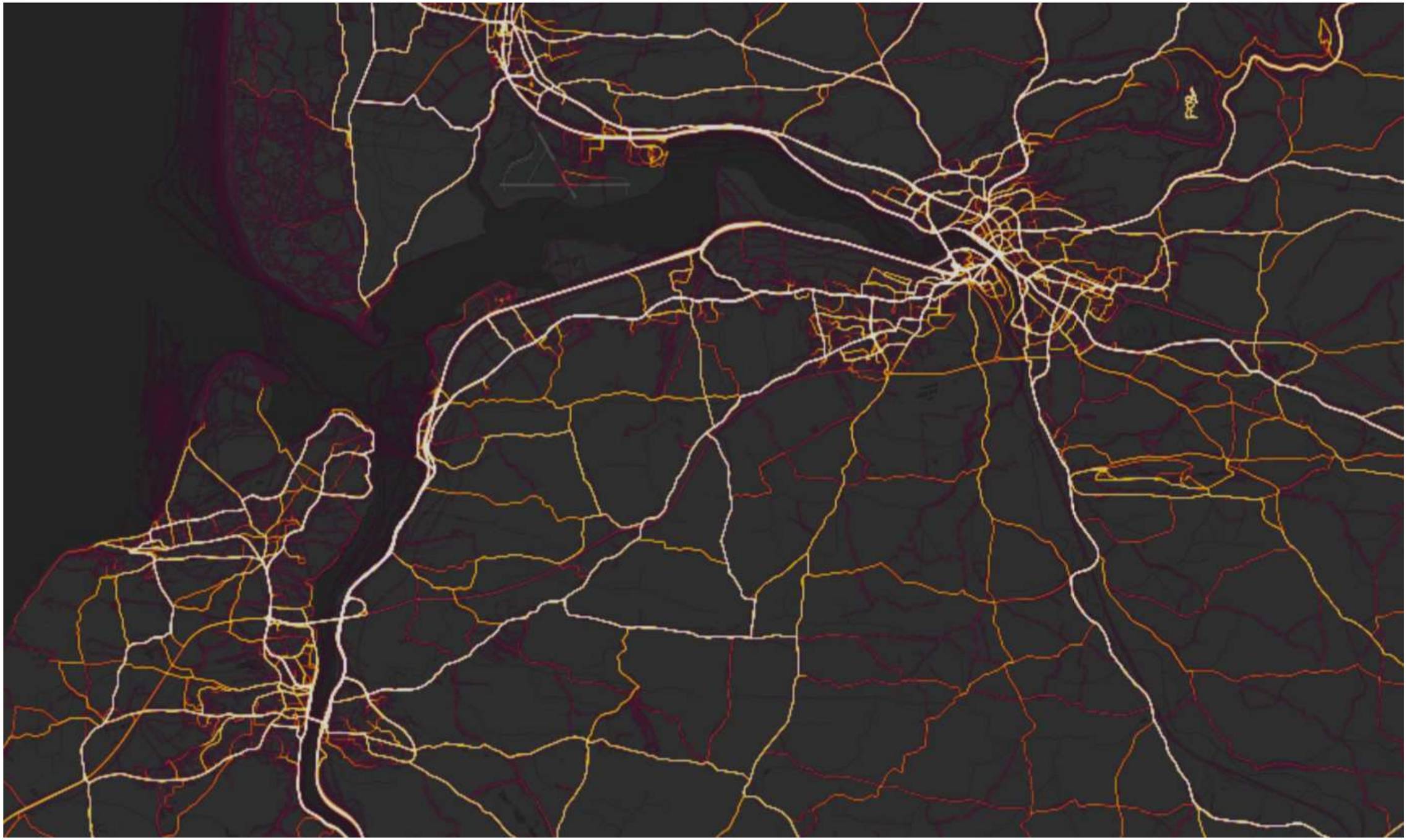


Figure 3-3 - Highest commuter cycle flows. Wider lines indicate increase usage (Source: Propencity to Cycle Tool, 2011 Census

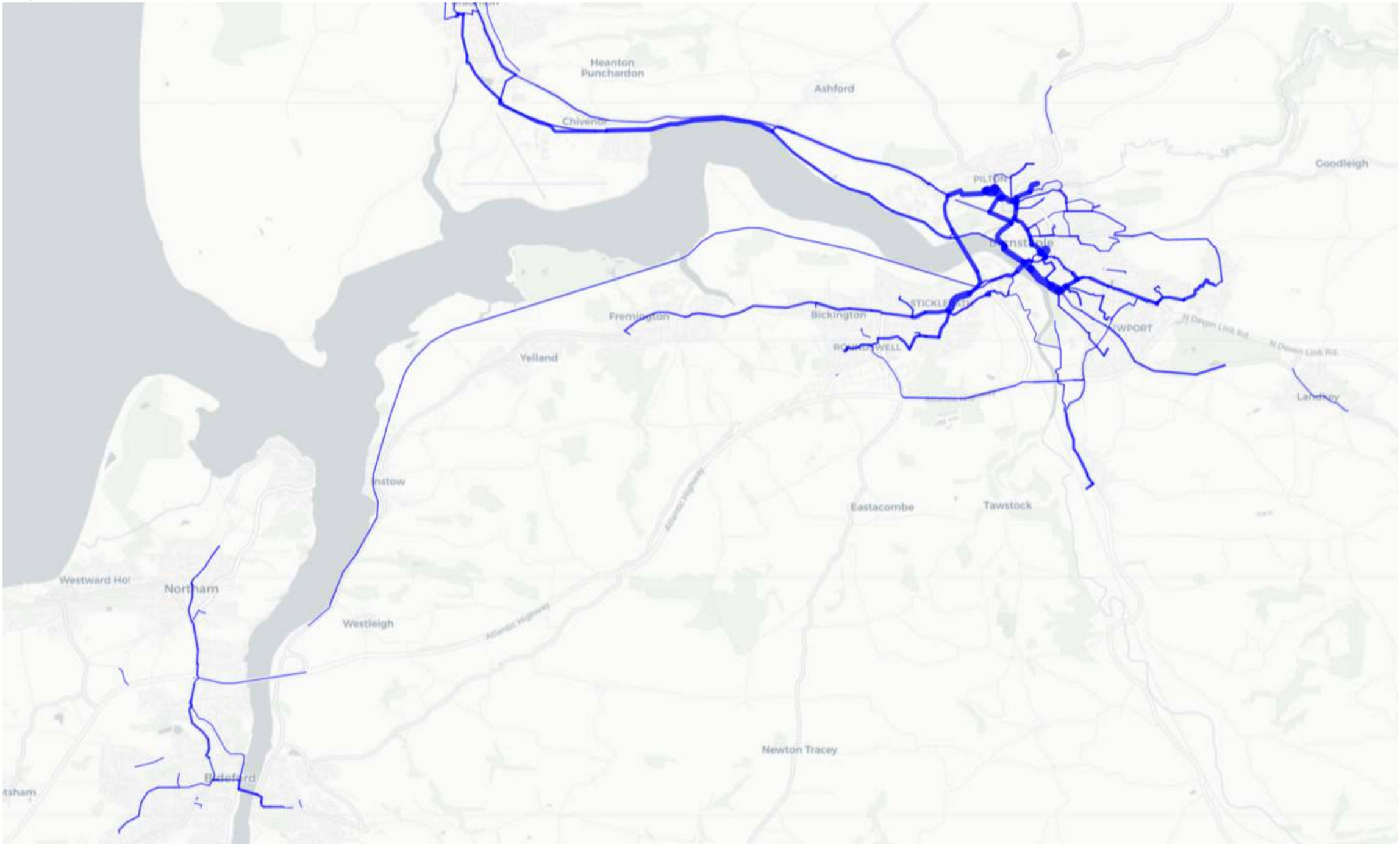


Figure 3-4 - Highest school cycle flows. Wider lines indicate increased usage (Propensity to Cycle Tool, 2011 Census)

Figure 3-5 - Pedestrian and cyclist casualties 2016-2020

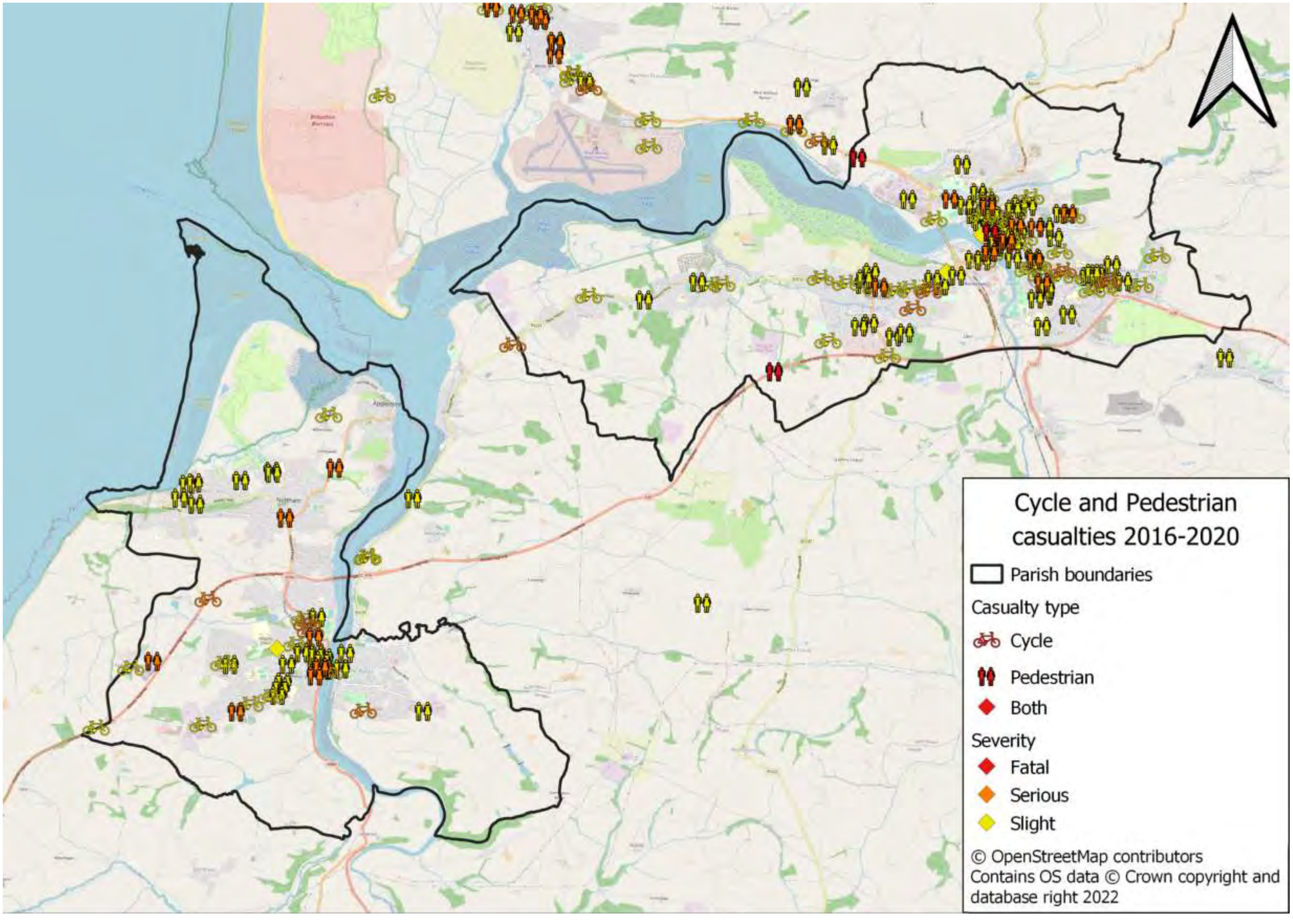
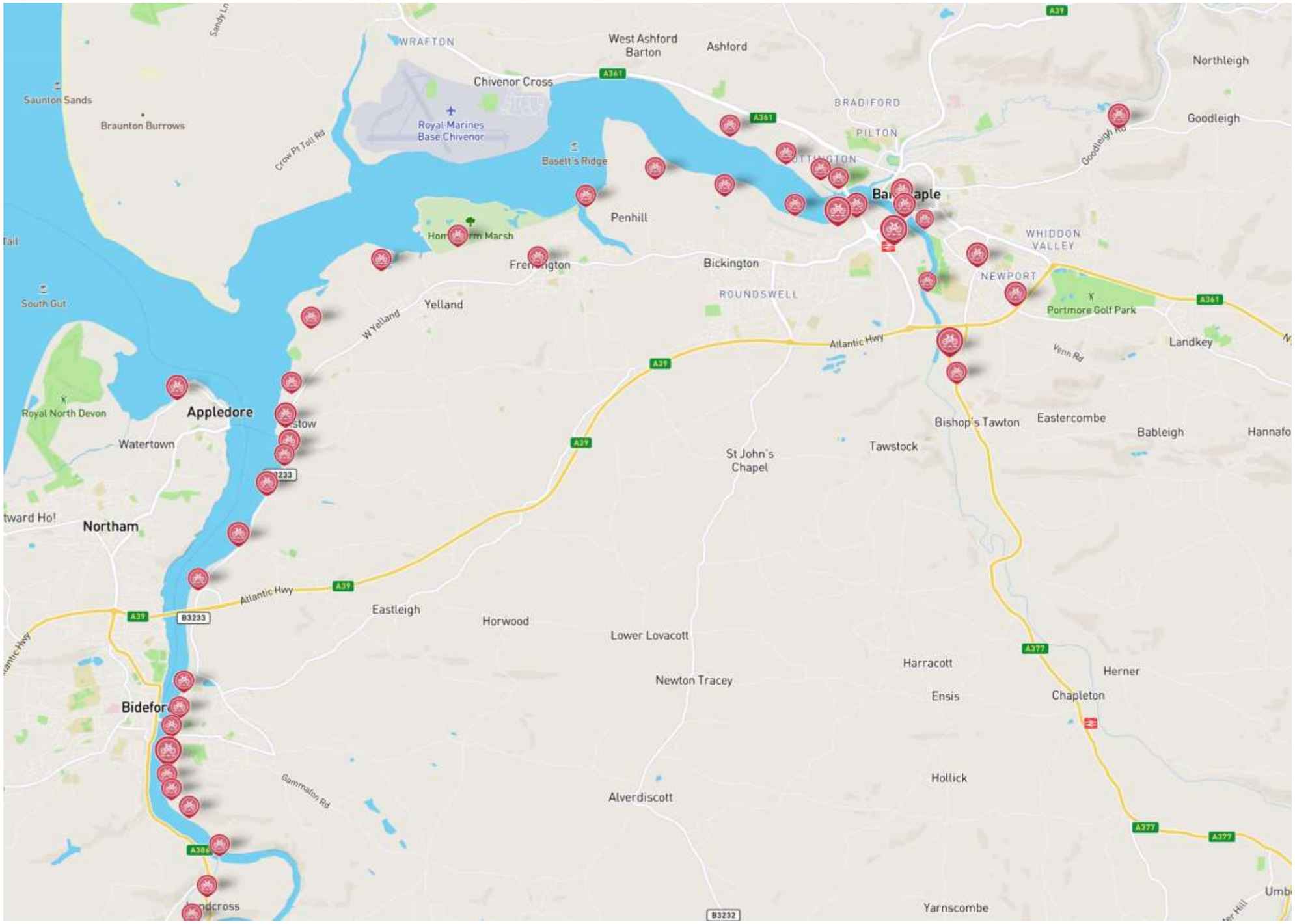


Figure 3-6 - Public suggestions for cycleways (Source: Widenmypath.com)



Planned Cycling Infrastructure Schemes

Various cycle infrastructure schemes have already been outlined in the Devon County Council Transport Infrastructure Plan (2020) and are currently at various stages of development such as design, planning application, awaiting funding and awaiting construction. Table 3-2 lists the existing proposals.

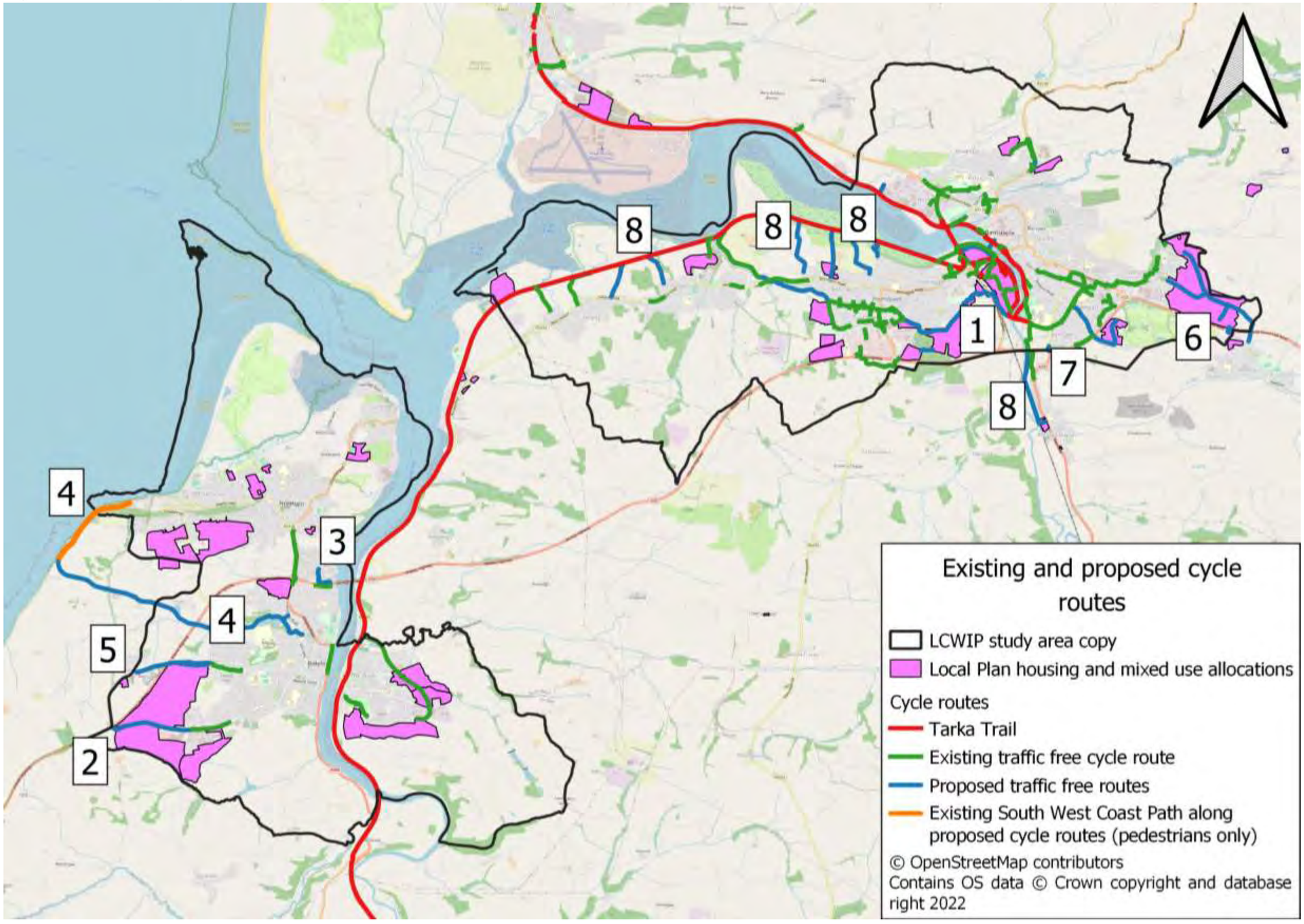
Figure 3-7 shows the current cycle provision, as well as proposals identified in Table 3-2. The Local Plan identified potential links to the Tarka Trail from Pottington, Sticklepath and Bickington, as well as the proposal for a leisure route along the old Bideford to Westward Ho! rail line. Other proposals that have been identified tie in with proposed development in the area, including points 1, 2, 3 and 6.

The Local Plan housing and mixed-use development allocations within the study area have also been shown. Most of these developments will be delivering cycling links within and connecting to them, however due to the various stages though the planning process these allocations are at, and the limited onward connection they will provide, only the allocated land for the developments has been shown at this time.

Table 3-2 - Existing cycle infrastructure proposals

Map number	Proposal	Description
1	Larkbear pedestrian & cycle bridge	New cycle bridge across the A361 connecting the Larkbear development to the iron bridge, forming a section of the East West corridor
2	Clovelly Road path and Caddsdown Link	Shared use foot/cycleway from new developments along the industrial estate
3	Bideford to Northam cycle link	A new cycle route connecting Bideford and Northam under the A39 via new housing development onto Limers Lane
4	Kenwith Valley cycle link	New cycle link and multi-use trail following the old Bideford to Appledore rail line
5	Abbotsham link	New footway along Abbotsham Road linking new developments and schools in Bideford with Abbotsham
6	Landkey Junction cycle and pedestrian bridge	New cycle and pedestrian bridge across the A361 near Landkey Junction
7	Bishops Tawton Roundabout crossing	Pedestrian and cyclist links crossing the A361 to Bishops Tawton
8	Strategic Green Infrastructure Links	Cycle and foot links from Pottington, Sticklepath and Bickington to the Tarka Trail, improved cycle links between Rock Park and Bishops Tawton

Figure 3-7 - Existing cycle network and proposals from Table 3-2



Origins and Destinations

The LCWIP Technical Guidance sets out the stages that should be followed when identifying the routes to progress with improvements along. Initially, to assess the demand for cycle connections, the guidance states that network planning should start by mapping the main journey origin and destination points.

In line with the guidance, census output areas centroids were chosen to represent journey origins from existing residential areas. Additional origins and destinations were identified and are shown in Figure 3-8, including:

- Future housing and employment sites in the adopted Local Plan;
- Recreational areas and visitor attractions;
- Town, District, and Neighbourhood Centres as identified in the adopted Local Plan;
- The existing rail and bus stations; and
- Hospitals and secondary schools.

Some journeys to and from areas outside of the study area have been considered, including from Bishops Tawton, Landkey and Abbotsham, as these lie on the edge of the study area and close to sites allocated within the Local Plan. The links within Barnstaple and Bideford which serve demand for people travelling to Tarka Trail to reach destinations such as Braunton and Great Torrington have also been considered, and while access points onto the trail will be considered as and when they are appropriate, improvements along the Tarka Trail itself will not be considered as part of this LCWIP.

Desire Lines

Geographic Information Systems (GIS) software was used to locate and map the primary journey origins and destinations to determine direct desire lines for movement between them. Desire lines are indicative links between areas with multiple origin and destination points and do not, at this stage of the LCWIP process, need to follow alignments of existing roads or cycle routes. The alignments for routes along these desire lines are identified and assessed at later stages in the process.

Using the origins and destination as shown in Figure 3-8, as well as considering existing residential, retail, and commercial areas, clear origin and destination clusters were identified.

Desire lines close to route alignments with existing high quality cycle infrastructure, such as along sections of the Tarka Trail in Barnstaple and the old rail line in Newport, and existing proposals previously identified were removed. Assessments of demand based on the PCT and census data as shown above was used to determine which desire lines would experience the highest demand. These initial desire lines linking origins and destinations are shown in Appendix C Figure C-1 and Figure C-3 for the Barnstaple and Bideford sides of the study area respectively.

Desire lines were then split into three categories;

- Primary desire lines – High flows of cyclists are forecast along desire lines that link large residential areas to trip attractors such as a town or village centre.
- Secondary desire lines – Medium flows of cyclists are forecast along desire lines that link to trip attractors such as education and employment sites.
- Local desire lines - Lower flows of cyclists are forecast along desire lines that cater for local cycle trips, often providing links to primary or secondary desire lines.

These prioritised desire lines are shown in Appendix C Figure C-2 and Figure C-4 for the Barnstaple and Bideford sides of the study area respectively.

At this stage, these desire lines are represented as the most direct route along the identified routes. This exercise produced 6 desire lines, 4 within Barnstaple and its neighbouring parishes, and 2 within the parishes of Bideford and Northam, shown in Figure 3-9 and Figure 3-10 on the following pages.

Table 3-3 - Primary desire lines

No.	Route	Colour
1	Yelland to Barnstaple Longbridge	Yellow
2	PETROC to North Devon Hospital and Pilton	Dark green
3	Whiddon Valley to Barnstaple Town Centre	Purple
4	Landkey and Newport to Rock Park	Blue
5	Appledore to Bideford Town Centre	Pink
6	East-the-Water to Caddsdown	Light green

During the following steps, these routes will be audited and refined to achieve the most optimal alignment

Figure 3-8 - LCWIP study area origins and destinations

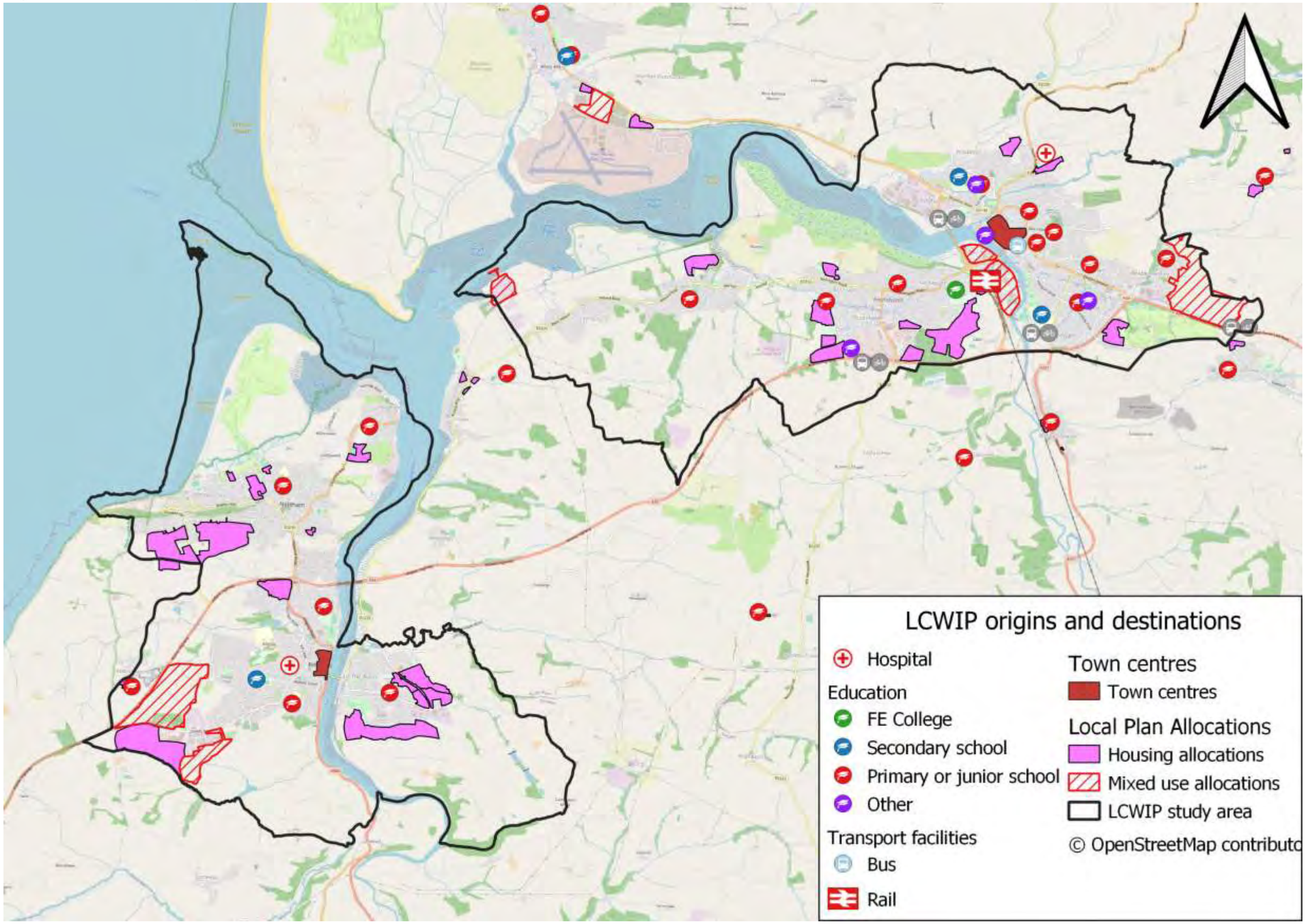


Figure 3-9 - Priority desire lines in Barnstaple

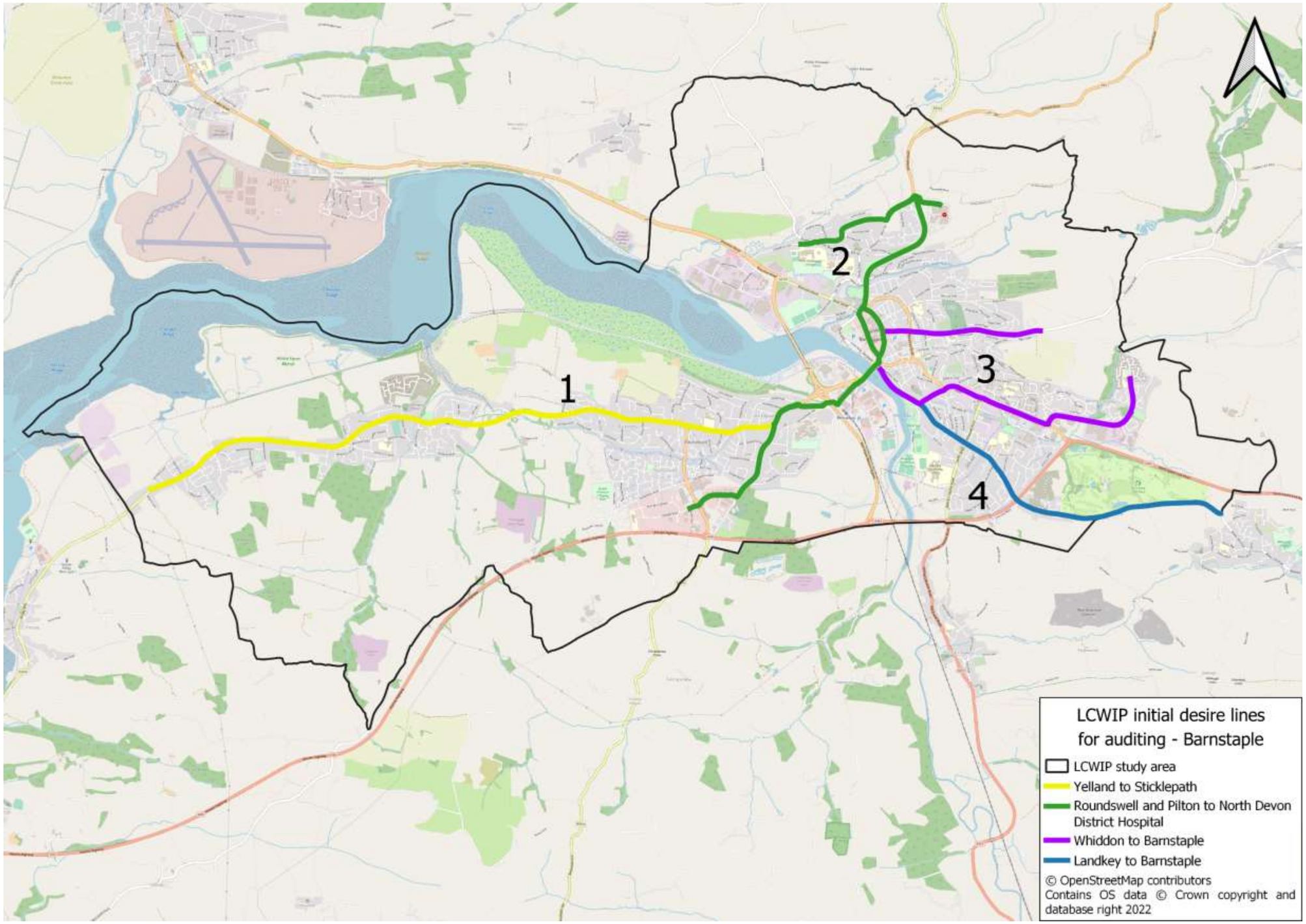
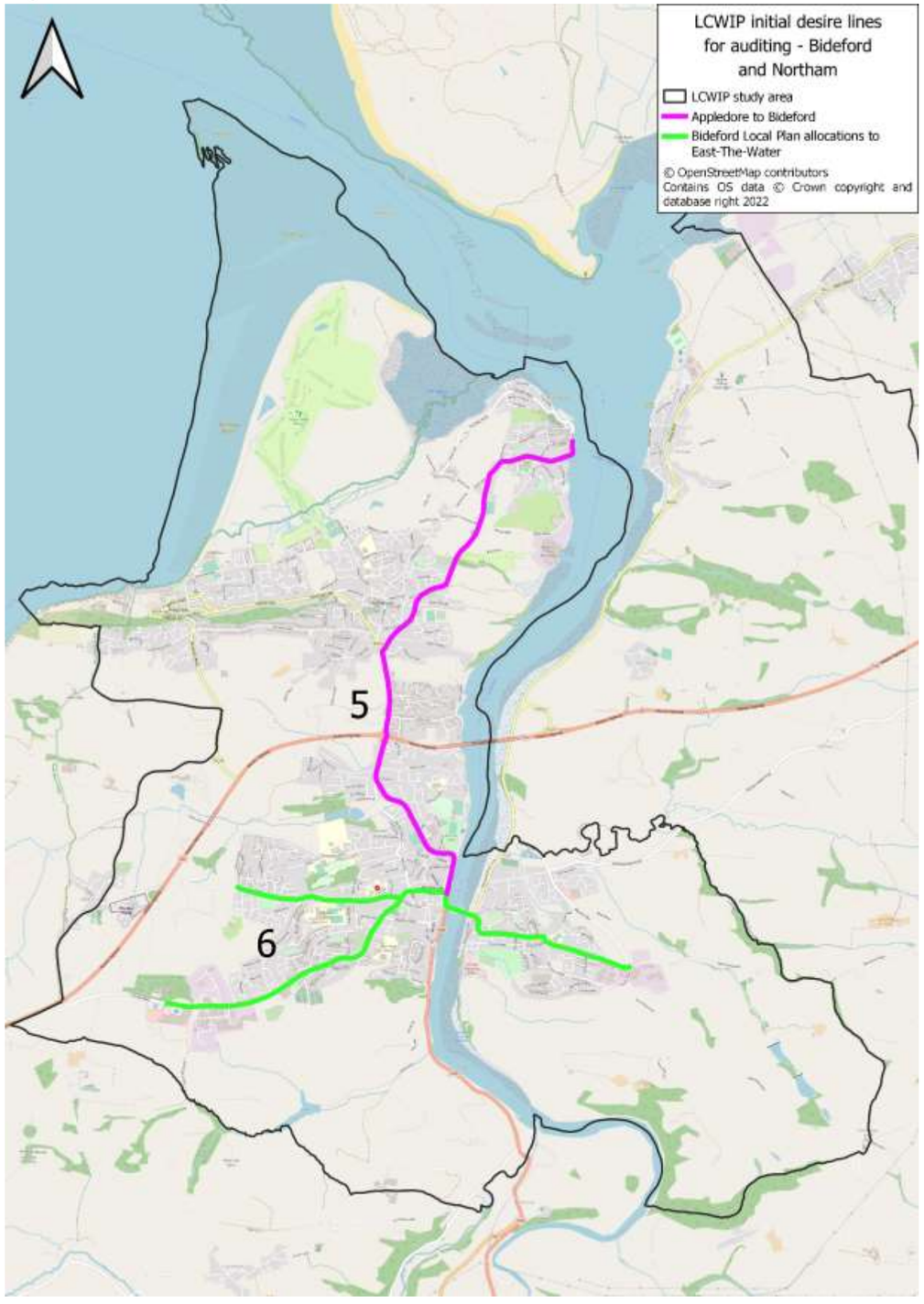


Figure 3-10 - Priority desire lines in Bideford and Northam



Route Development Process

Having determined the priority desire lines, the next phase of the process is to identify actual routes that can accommodate these desire lines. For example, via existing roads or paths, or identifying opportunities to create new routes.

A route auditing process was undertaken for each of the priority desire lines. Audits were undertaken by trained auditors carrying out site visits and the DfT's Route Selection Tool (RST) was applied consistent with the process shown in Figure 3-11. The main function of the tool is to assess the suitability of a route in its existing condition against the core design outcomes of being coherent, direct, safe, comfortable and attractive, then to undertake a comparison with the potential improved future condition. The process also considers the hilliness and gradient of the various route options. The process enables the easy comparison of alternative routes, should any be identified**.**

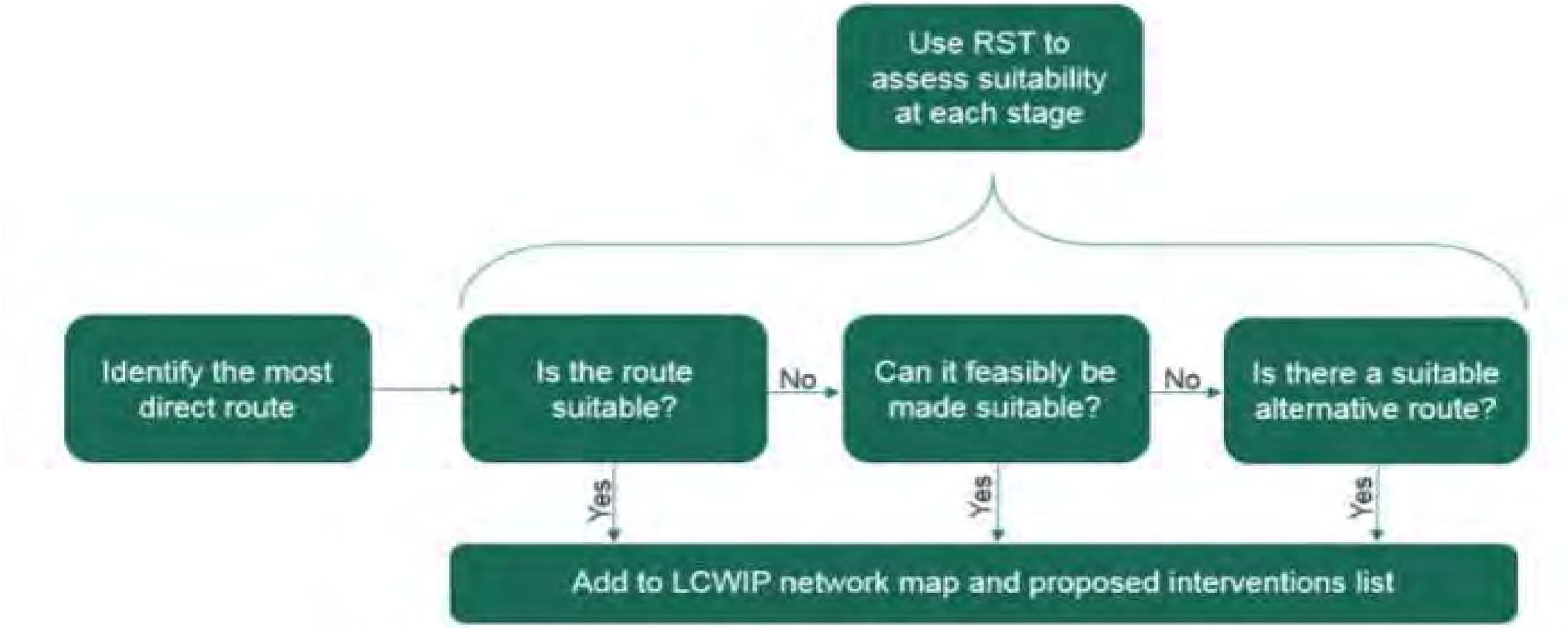
Figure 3-11 shows the process used. The first route audited is the most direct. If this is, or can be, made suitable for All Ages and Abilities cycling, then this is the preferred route option. If the most direct route cannot be brought up to a suitable standard, then the next most direct route is audited by finding alternative alignments for sections which cannot be bought up to a good enough standard, and the process repeated.

The following factors were considered when undertaking the audits and determining the potential route improvements:

- The quality of existing cycling infrastructure provision;
- The potential of the route to connect other origins and destinations within the corridor;
- The potential for and feasibility of route improvements, based on any apparent constraints;
- Identification of critical junctions, to determine how these could be either avoided or enhanced to make the route more attractive, safe and direct for people cycling; and,
- The potential for integration with other proposed improvements identified through the policy review and engagement with officers, to add wider value.

A suite of plans showing the context of each corridor and the proposed improvements are shown on the following pages.

Figure 3-11 - LCWIP Route development process



Types of Improvements

Improvements were developed according to the latest design standards, with key improvement types shown below.

Protected cycle path

A cycle route, physically separated from the areas used by motorists and pedestrians. It may be next to, or completely away from the carriageway.

Continuous footway/cycleway crossing

A method of giving people cycling and walking priority over motor vehicle movements at side junctions. The footway material continues across the junction, giving a strong visual priority.

Contraflow cycle route

Allows people cycling to travel in the opposite direction to one-way motor traffic. Can be implemented with or without lane markings.

Parallel / Tiger crossing

A crossing similar to a zebra crossing, which accommodates people cycling as well as walking.

Shared use path

A route, path, or part of any public space which people cycling and walking share, but where motor traffic is not permitted.

Public realm improvements

Measures that enhance the look and feel of an area, including tree planting, street art, paving, seating, and other features to make public spaces more attractive.

20mph limits/zones and traffic calming

Traffic calming includes features that physically or psychologically slow traffic. 20mph limits refers to 20mph areas enforced by signs only. 20mph zones refers to 20mph enforced by signs and traffic calming.

Dropped kerb and tactile paving

A feature to allow non-stepped access, usually between a footway and carriageway. Tactile paving helps people with sight impairments understand the street and crossing points.

Wayfinding

Encompasses all of the ways in which people orient themselves and navigate from place to place.

Modal filter / Low Traffic Neighbourhood

A modal filter typically consists of a bollard, planter, or other barrier that allows people cycling and walking (and occasionally public transport vehicles) to pass, but not other motor traffic. Low traffic neighbourhoods often deploy modal filters to reduce the volume of motor traffic through an area.

Case Study: Protected cycle routes and liveable neighbourhoods

Towns and cities across the UK are adopting Dutch-style design principles including delivery of protected cycle tracks and Liveable or Low-Traffic Neighbourhoods. These approaches were recently endorsed by central government in LTN1/20 Cycle Infrastructure Design, published in 2020.

Safety, and the perception of safety, is the main reason why most people do not cycle, or do not cycle more. Protected cycle infrastructure breaks down these barriers – providing separation from other road users on both road links and at junctions. Sustrans national "Bike Life" survey identified protected routes as the most effective way to encourage more people to cycle more often, and this is reflected in monitoring evidence from London and elsewhere, with protected cycle tracks significantly increasing cycling compared to painted on-street cycle lanes[ixx].

Local authorities across the country are also developing Liveable Neighbourhoods and 'Healthy Streets' to deliver safer, quieter, less polluted and more pleasant streets. They provide the opportunity to create space for social activity, play and greening. Introducing Liveable Neighbourhoods leads to:

- More active travel;
- Improvements in physical health & wellbeing; and
- Greater opportunities for social interactions

By reducing the amount of through traffic, modal filters can be the single most effective intervention installed along a street to improve the environment for cycling and walking.

The best-known Liveable Neighbourhood schemes in the UK are in the London Borough of Waltham Forest. The scheme included continuous footways, pedestrian crossings, school streets, pocket parks and trees, and bike hangars, which provide secure on-street cycle parking for residents in the same footprint as half a car parking space.

A strategic east-west cycle route across Exeter (E9) was delivered in 2020 as part of the Emergency Active Travel response to the Covid-19 pandemic. This was achieved by introducing four new modal filters at key locations to reduce through traffic in the city. Supported by partners including the city's biggest single trip generator, the Royal Devon and Exeter Hospital, the measures have created a safe attractive route connecting residential areas with employment, open spaces and the city centre. Following the trials of these measures and subsequent consultation, many of the temporary measures to help deliver the E9 route in Exeter have been made permanent, including permanent modal filters, green lanes, bus gates and contraflow cycle lanes enabled by creating one way traffic flows.

Rural and Suburban Cycle Links

The study area provides a unique environment for cycling design principles compared with other more urban environments, which are currently generally leading on the deployment of new cycling infrastructure. Many routes used for regular local and leisure journeys are along routes which experience lower vehicle and pedestrian volumes compared to many routes in dense urban settings. As such, many routes may be better suited for alternatives to segregated cycle infrastructure, such as shared use and multi-use routes.

LTN1/20 states that "shared use may be appropriate in some situations, if well-designed and implemented", such as:

- Along interurban and arterial roads where there are few pedestrians
- At and around junctions where cyclists are generally travelling at slow speed, including in association with Toucan facilities
- In situations where a length of shared use may be acceptable to achieve continuity of a cycle route
- In situations where high cycle and high pedestrian flows occur at different times

Along with cycling and walking, other residents in the study area make leisure journeys on trails and quiet roads on horseback.

LTN1/20 (table 6-3) also supports the use of shared use paths if paths have up to 300 pedestrians an hour. With a width of 3.0m being required for up to 300 cyclists per hour and a width of 4.5m for over 300 cyclists per hour.

Equestrian Use

While routes passing through busy urban environments, such as Barnstaple and Bideford town centres, would likely be unsuitable for equine use due to the high volumes of pedestrian footfall, some sections of routes along the six identified desire lines pass through rural environments and may be suitable for multi-use. Consideration as to whether sections of route would be suitable for equine use alongside pedestrians and cyclists should be taken on a case-by-case basis at the early stages of the design process, with consultation between local interest groups such as the British Horse Society, to determine whether a mixed-use environment would be suitable. Where this multi-use is considered appropriate the materials used in the new infrastructure will need to be carefully designed to include horse riders safely.

Stakeholder Engagement

Before the finalisation of the draft LCWIP report, in person stakeholder engagement events were held in Bideford and Barnstaple to gather input and opinions on the emerging route proposals. Stakeholders invited included local district and parish councillors, relevant council officers, local organisations and campaign groups. Comments were also received by stakeholders unable to attend in person. Stakeholders also provided valuable evidence supporting the need for cycling and walking infrastructure, such as sources listing health and wellbeing benefits. The comments gathered during these events and online have directly fed into the proposals.

Route Proposals

Following the auditing process, the proposals identified would deliver 46 miles of additional traffic-free and low-traffic cyle routes in the Barnstaple, Bideford and Northam areas, suitable for all ages and abilities. These routes will link up the key employment and residential areas that currently do not have suitable cycling provision. They will also improve connections to the Tarka Trail, enabling more residents and visitors to access leisure journeys.

Additional links providing access between the key desire lines and key origins or destinations have also been identided where applicable.

Further details of the routes and associated improvements are shown on the following pages.

Yelland to Barnstaple Longbridge - Cycling

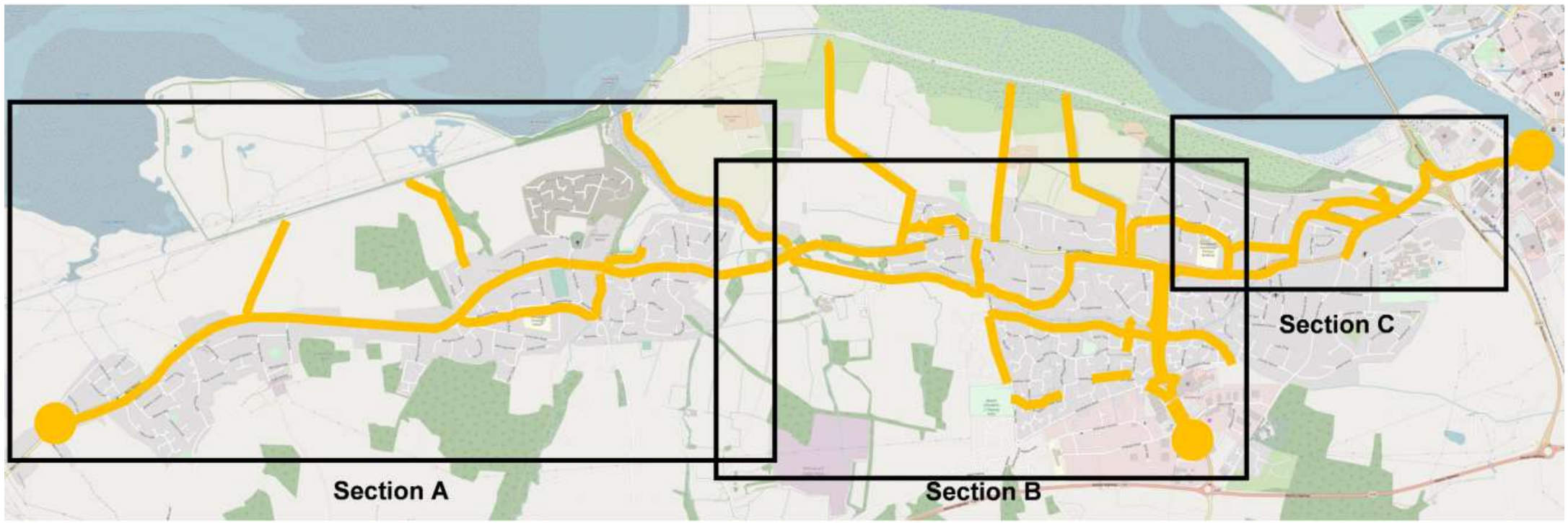
The approach towards improving the cycling infrastructure from Yelland to Barnstaple and the communities between focuses on:

- Creating direct links between communities without the need for long diversions via the Tarka Trail
- Provide safe crossings along Bickington and Yelland Road towards the Tarka Trail to enable people of all ability to safely access the trail
- Connecting residents to employment and education sites in Bickington, Sticklepath and Barnstaple

While the Tarka Trail provides a high quality, traffic-free route along the estuary from Yelland to Barnstaple, local journeys between the communities via the Tarka Trail require long detours, potentially doubling the distance required to cycle via a traffic-free route compared to travelling along the main roads. Communities such as Yelland and Fremington do not have secondary education sites and limited local amenities, while the traffic-free cycle route through Bickington and Roundswell is missing links to allow all users access it. A more direct route along the main road corridor will therefore allow shorter local journeys between these communities to be more viable, increasing the number of residents who can safely cycle to their destination.

The proposed route utilises protected cycle lanes, shared use paths and signposted quiet roads to provide a cohesive and coherent network suitable for all ages and abilities. This also includes removing potential barriers for adapted cycle and wheelchair users, as well as for families and cargo bikes, such as bollards and barriers, which prevent wider or longer cycles from passing, and safe crossings along busy corridors.

The following pages detail the recommended improvements. Page 37 also includes an example of a barrier along existing routes which should be reviewed to improve accessibility to all route users.



Yelland to Barnstaple Longbridge - Cycling

Section A: Yelland to Fremington

This section of the Yelland to Barnstaple route runs from the access point to the Tarka Trail at Isley Marsh along Yelland Road and through Fremington. A detailed map of the proposals for this section can be seen in Figure 3-12 on page 36. The recommended improvements are:

1. Create a shared use path from Isley Marsh access road to link onto the existing short length of shared use path in Fremington. Recommended minimum width of 3m due to low pedestrian footfall in the area, but aim for a 0.5m wide grass verge to act as a buffer between the path and the carriageway.
2. Install a new crossing over Yelland Road from the existing shared use path to Beechfield Road to allow safer cycle crossing from housing to the south of Yelland Road, selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
3. Consider a one-way traffic flow around the primary school entrance and allow contraflow cycling along Mill Road.
4. Reduce highway width and realign crossings to facilitate a shared use path on the northern side of the road passing through the village. Pedestrian footfall of <300 per hour would allow for a minimum width of 3m, but preferably wider where possible. Select crossings in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
5. Install a new crossing over Yelland Road from Old School Road/The New Inn to allow cycles to safely cross to the proposed shared use path, selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
6. Progress any cycle links to the Tarka Trail previously identified in the Local Plan, including the link from Chilpark along the existing footpath and the link along Riverside Park. Include relevant signage to highlight the destinations accessible from the Tarka Trail.
7. Create a shared use link from Coppice Close to Mill Hill along the existing path.
8. Investigate the potential a new cycle and pedestrian link to Fremington Quay. Despite the low traffic volumes to Fremington Quay, the road is quite narrow in places and so is not well suited for groups such as families.

Yelland To Barnstaple Longbridge - Cycling

Section B: Fremington to Bickington

This section of the Yelland to Barnstaple route runs from the road to Fremington Quay into Bickington and Roundswell. A detailed map of the proposals for this section can be seen in Figure 3-13 on page 37.The recommended improvements are:

1. Widen the existing shared use path along Bickington Road, including cutting back the verge and relocating street furniture to free up space for passing.
2. Deliver a new off-road trail as identified in the Barnstaple Cross Town route to link from Tews Lane to Fremington Quay. An alignment utilising Combrew Lane as a green lane to then link into the existing shared use path at both ends with suitable crossing points could also be considered, selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
3. Reconfigure the entrance to Mead Park to give priority to cycling along the existing path.
4. Investigate the potential for a modal filter at Bickington Lodge the existing cul-de-sac and turning head. This section of highway is currently cut off with shrubbery, and creating formal access points exclusively for pedestrians and cycles would preserve the quiet nature of the routes while allowing safe and direct routes.
5. Signpost a quiet on-road route through Lyddicleave and Hopperstyle to link back onto Bickington Road. The western section of Bickington Road from Elmfield Road to Hopperstyle contains multiple sections too narrow to provide a continuous off-road cycle link. This on-road link will also provide an easily navigable and signposted access point onto the existing segregated route from Tews Lane to Old Bideford Road.
6. Create a new shared use path along the northern side of Bickington Road with a new crossing point at its junction with Hopperstyle. Some carriageway realignment and verge cutback may be required along the western approach to the roundabout with A3125. Reprofile junctions to create safer cycle and pedestrian crossings at junctions and emphasise priority for pedestrians as set out in the highway code. Crossing points selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
7. Signpost a quiet route via Sticklepath Community Primary Academy, with light touch traffic calming measures such as expanding the use of existing build outs and managing traffic during school opening and closing times to create a safer environment for children walking, cycling and scooting to school.
8. Implement additional links to the Tarka Trail as previously set out in the Local Plan to help increase connectivity for leisure journeys. Ensure safe crossing points at Elmfield Road and Tews Lane to ensure safe crossing of Bickington Road onto quieter routes. Crossing points selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
9. Conduct a review of all barriers along the existing cycle network through Roundswell and Bickington to ensure mobility scooters, adapted cycles, cargo cycles and family bikes can easily access the network.

10. Formalise cycling along the existing footpaths parallel A3125, with potential widening and relocation of barriers which narrow the path in sections. Look to bring the minimum width up to 3m.

Yelland to Barnstaple Longbridge - Cycling

Section C: Bickington to Barnstaple

This section of the Yelland to Barnstaple route runs from Bickington to Barnstaple, just west of the Longbridge. The section of route across the Longbridge will be covered in a subsequent route. A detailed map of the proposals for this section can be seen in Figure 3-14 on page 38.The recommended improvements are:

1. Continue the proposed shared use path as set out in Section B along the northern side of Bickington Road until Beechwood Avenue. Beyond Beechwood Avenue and Old Torrington Road, the road, the lack of available space and busy road conditions would lead to a sub-standard width shared use path.
2. Create a clearly signposted quiet on-road route along Beechwood Avenue, making use of the existing No Entry Except for Cycles, to create a link to Sticklepath Hill. Currently the route is quite low traffic with an existing cycle only access along Beechwood Avenue so minimal changes would be needed.
3. Reprofile carriageway layout to create a two-way segregated cycle route down Sticklepath Hill. Due to the gradient and traffic volume, ensuring cycles and pedestrians are separated when going downhill and that cycles and vehicles are separated going uphill will help improve safety and comfort for all users. This could be achieved by removing the on-carriageway cycle routes and rearranging carriageway including hatching. The northern side of the carriageway seems best suited to make use of the existing cycle crossing and eliminate the need to cross at the top of Sticklepath Hill.
4. Create a shared use path, facilitated by removing the on-carriageway markings, with Toucan crossing, selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20, on the Sticklepath Hill arm of the mini roundabout to enable crossing for journeys along Old Torrington Road. Minimum width of 3m to meet minimum recommended width.
5. Investigate opportunities to improve the general environment around the existing underpasses to create a more welcoming environment for people accessing the Tarka Trail. Review and update signposting for the Tarka Trail to bring them up to date.
6. Realign the crossing outside of ASDA to make it more direct for cycles to cross, reducing sharp turns which can be difficult to navigate. Alternatively install a parallel crossing closer to the ASDA roundabout and realign the footpath on the western side to create a new crossing point for pedestrians and cycles avoiding the main junction. The crossing will be selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
7. Consider widening of the existing shared use path to a minimum of 3 metres, potentially facilitated by narrowing of central island and cutting back into verge. Review existing placement of signs and other street furniture to reduce pinch points for pedestrians and bikes.

Figure 3-12 - Yelland to Barnstaple Longbridge section A proposals

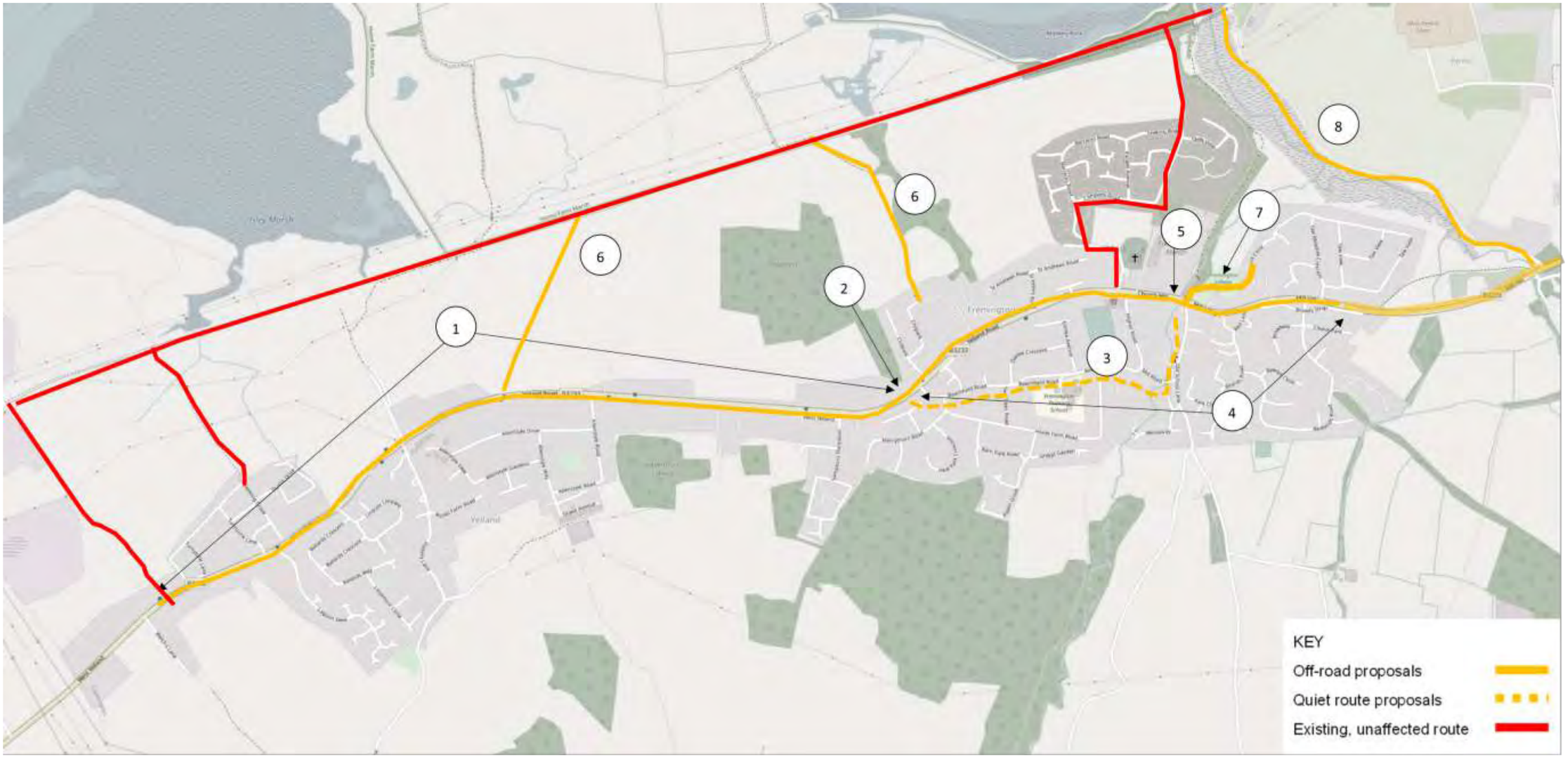
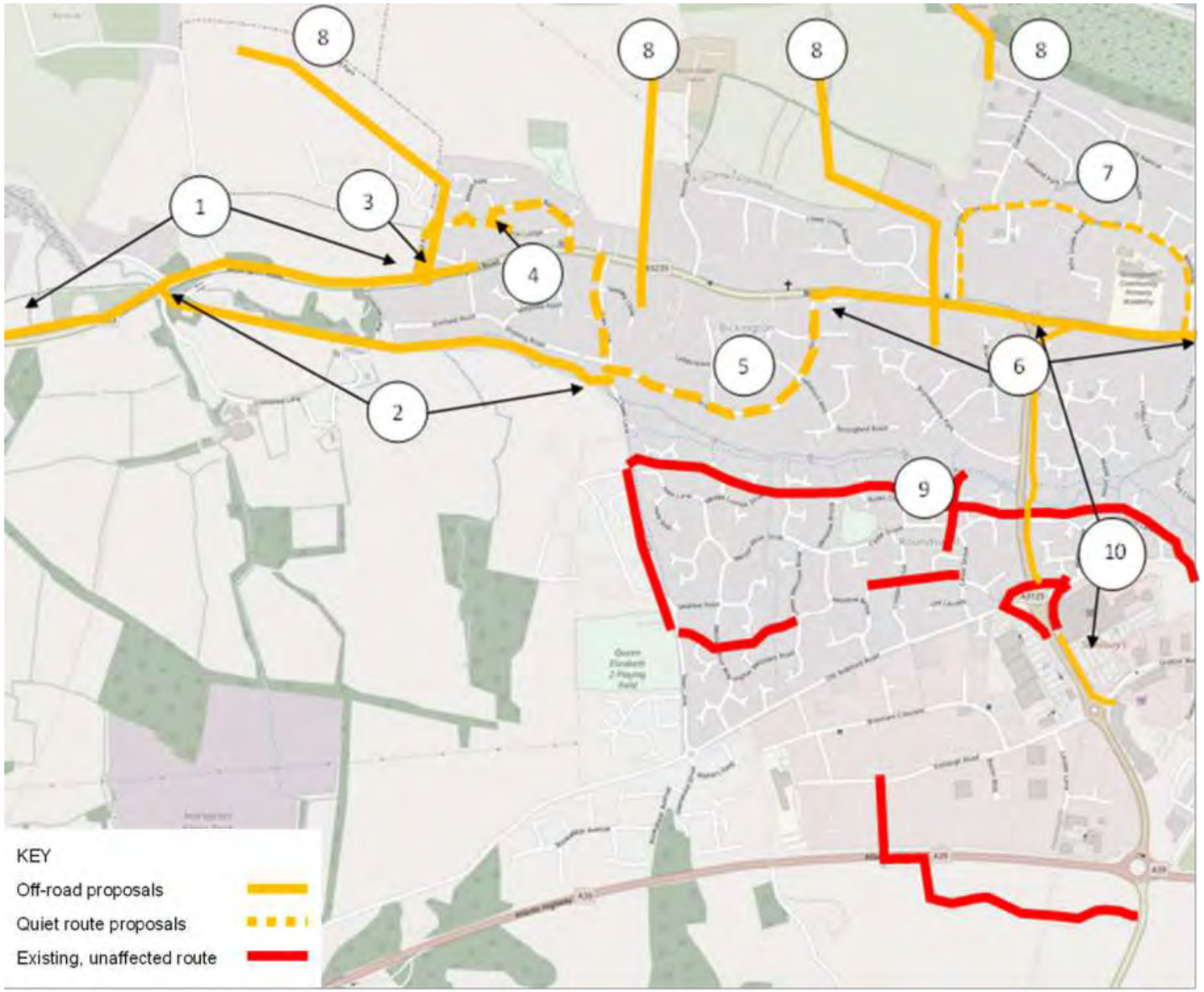
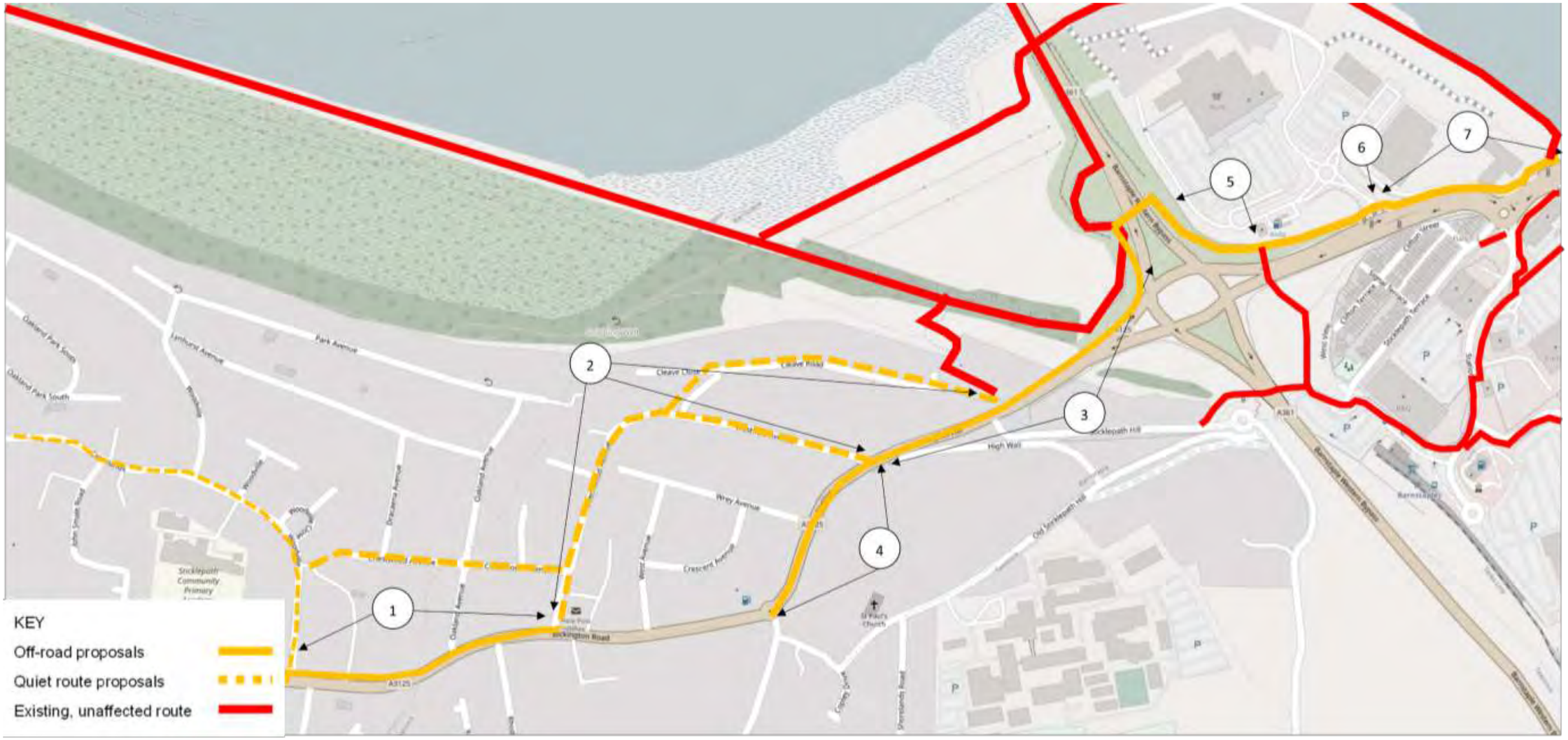


Figure 3-13 - Yelland to Barnstaple Longbridge section B proposals



Example: An existing barrier on a route in Bickington. A review should be undertaken to replace these with barriers which maintain access for adapted cycles and mobility scooters

Figure 3-14 - Yelland to Barnstaple Longbridge section C proposals



Roundswell to Pilton, Barnstaple - Cycling

The approach towards improving the cycling infrastructure between the communities between Roundswell and Pilton focuses on:

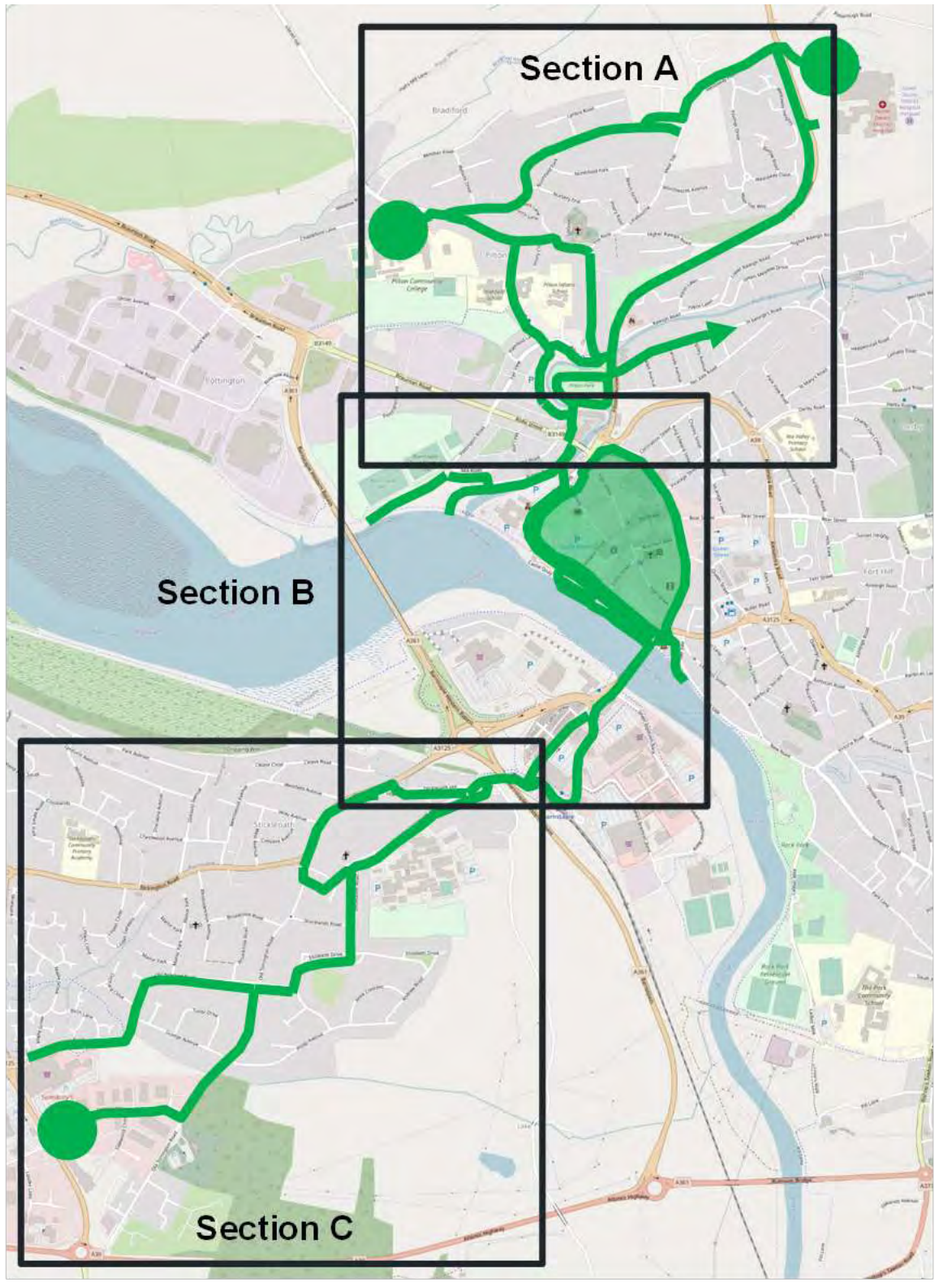
- Providing a safe and coherent cycling environment along busy corridors and the River Taw
- Improving access to education facilities from Barnstaple town centre and rail station
- Enhancing the cycling and pedestrian experience around the town centre and the historic Pilton area
- Reviewing the town centre one way and pedestrianised systems to improve cycling without impacting pedestrians

Currently there are significant gaps in the existing cycle network from Pilton and Roundswell to Barnstaple town centre, limiting access to hospitals, schools, retail, and employment locations via low or traffic-free routes. Providing a visible, high quality and easy to navigate route has the potential to encourage more cycle journeys to employment and education on both sides of the Taw.

The proposed route on the northern side of Barnstaple focuses on access from North Devon District Hospital and the Pilton Schools towards the town centre. Proposals include a two-way segregated cycle lane along North Road to replace the existing advisory cycle lanes, providing a vastly more comfortable and attractive cycle route along the busy corridor, and a low-traffic network of routes around the Pilton area utilising quiet streets and contraflow cycling. Proposals also include improved cycle access through Pilton Park to avoid the busy roundabouts of Mermaid Cross and a traffic-free route along North Road to serve cyclists travelling to the Tarka Trail or beyond the town centre.

On the southern side of the Taw, proposals highlight the need for a traffic-free crossing over the Taw. They also include improved shared use facilities around the Station Road area, revised pedestrian, and cycle access to the rail station, a new clearly signed route towards Old Torrington Road, and a traffic-free route into Roundswell Business Park.

The following pages detail the recommended improvements. Page 43 also includes a render of the future layout of Magdalen Road, Exeter, as an example of a scheme which reallocates road space to create a one way road with a cycle lane and more space for pedestrians.



Pilton to Roundswell, Barnstaple - Cycling

Section A: North Devon District Hospital to Pilton Park

This section of the Pilton to Roundswell route runs from North Devon District Hospital to Pilton Park, via North Road and the central Pilton area. A detailed map of the proposals for this section can be seen in Figure 3-15 on page 43.The recommended improvements are

1. Create improved links from North Road to the Hospital to enable more members of staff and visitors to make journeys by bike. This includes a separate cycle link at the main entrance and formalising a cycle entrance at the southern end next to the bus stop on North Road.
2. Create an off-road cycle route along the entirety of North Road. Currently the advisory cycle lanes do not provide adequate protection from vehicles, especially Heavy Goods Vehicles, and lead to an uncomfortable and unattractive route. Preferably a two-way protected cycle link would be installed on one side of the road, separated by a grass verge, achieved by removing the advisory cycle lanes and realigning the carriageway. Absolute minimum width of 2m but preferably between 2.5m and 3m to provide a futureproof cycle link capable of accommodating between 300-1000 cyclists per hour.
3. Realign the crossing at Pilton Quay to be at the junction mouth to allow pedestrians and cyclists to cross directly from North Road, selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
4. Create a new entrance to Pilton Park to allow for a continued off-road route avoiding Pilton Causeway. Create a clearly signposted cycle route through the park to link onto the existing shared use bridge to Mills Way
5. Consider a modal filter on Northfield Lane, or a one way system around Northfield Lane and Northfield Park, to create a quiet link from Northfield Lane to Under Minnow Road. This link will help provide a quieter route connecting to the hospital, Pilton schools and Pottington industrial estate.
6. Review the junctions between Bellaire and Pilton Community College to improve visibility and crossing for cycles and pedestirans. Investigate the potential to widen the pavement along Under Minnow Road for pedestrians, potentially also acting as traffic calming to create a safer on road cycle experiance towards Abbey Road.
7. Undertake a review of traffic calming and school parking around Abbey Road to help encourage more children to walk, scoot and cycle to school and alliviate traffic caused at school times.
8. Consider a review of Pilton Street to create a one-way system with a contraflow lane for cycling, with the aim of improving the public realm in the Pilton area. This could take a similar approach as Magdalen Road in Exeter, where more space is created for both cycles and pedestrians with widened pavements outside of businesses, while preserving existing parking for residents and businesses. This could also help alleviate waiting at the Pilton Quay junction as traffic along Pilton Street would only be able to travel one direction. Ensure 2m width to accommodate potential for up to 800 cyclists per hour.
9. Signpost a cycle route along the footpath across from Abbey Road, with separate cycle path along the edge of the carpark below the existing footpath. Create an access ramp close to the existing steps parallel to flood defences to allow cycling and mobility scooter access to the existing shared use path.
10. Review of traffic and parking around the St George's Road area with the aim of freeing up more footway space for school children and other pedestrians, while ensuring a safe route for on-road cycling with low volumes of traffic.

Pilton to Roundswell, Barnstaple - Cycling

Section B: Pilton Park to Sticklepath Hill

This section of the Pilton to Roundswell route runs from Pilton Park to Sticklepath Hill via North Walk, Barnstaple Town Centre, Barnstaple Longbridge and the Rail Station. A detailed map of the proposals for this section can be seen in Figure 3-16 on page 44.The recommended improvements are:

1. Create a formal alternative cycle link between the Tarka Trail and Pilton, either by upgrading the existing permissive route to a higher quality or via a new link from the end of Rolle's Quay.
2. Due to the limited space along the existing bridge over the River Yeo, investigate an alternative cycle and pedestrian crossing south of Rolle Street bridge over the River Yeo, potentially between Rolle Quay and North Walk Car Parks. Alternatively consider changing the roundabout at the end of Rolle Street into a signalised junction, using the reduced carriageway width to widen the pavement.
3. Provide an off-road cycle route along North Road to Castle Street to provide a comfortable alternative route around the town centre, achieved by removing the existing hatching to create an approximately 3-4m wide shared use path.
4. Review the existing cycle access to the Tarka Trail to make it wider for adapted and family cycles, and level out the surface.
5. Potential for a one-way system with an approximately 2m wide contraflow cycle lane and widened footpaths along Castle Street enabled by removing one lane of traffic.
6. Formalise contraflow cycling on The Strand along the pedestrian zone with an east bound off-slip for cycles to prevent them from turning onto the Longbridge off-slip. Investigate the potential for a cycle crossing to Taw Vale to create an off-road route bypassing the existing underpass below the Bridge.
7. Undertake a full review of the town centre one-way systems and pedestrian zones to determine the potential for a revised system with contraflow cycling to create a more cohesive pedestrian and cycling environment while maintaining pedestrian priority.
8. Deliver a traffic-free route across the River Taw to support existing and future cycle and pedestrian volumes and create a safe route for cyclists of all ages and abilities. Due to the limited number of crossings over the Taw and the high volumes of cycle, pedestrian and vehicle journeys to and from the town centre, a protected cycle lane would be preferable.
9. Widen the existing shared use path along Station Road to a minimum of 3m and remove the existing white line segregation.
10. Signpost Sticklepath Terrace as the primary cycle link between Sticklepath Hill and Barnstaple Longbridge due to the low pedestrian and vehicle volumes. Install improved wayfinding at the western end of Sticklepath Terrace and possibly a controlled crossing across station road.
11. Undertake a review of the access to the Rail Station Car Park and bus stop layout to improve pedestrian and cycle access to and past the Rail Station. Currently the crossing from Barnstaple Station forecourt across the road is 4 lanes wide with barriers, leaving limited space for access.
12. Widen the shared use path along the "buses only" section of road towards Sticklepath Hill to a minimum of 3m. Create a pedestrian only footpath on the southern side of the link to create a direct link from the steps to Sticklepath Hill to the rail station via the car park and remove some pedestrians from the shared use path.

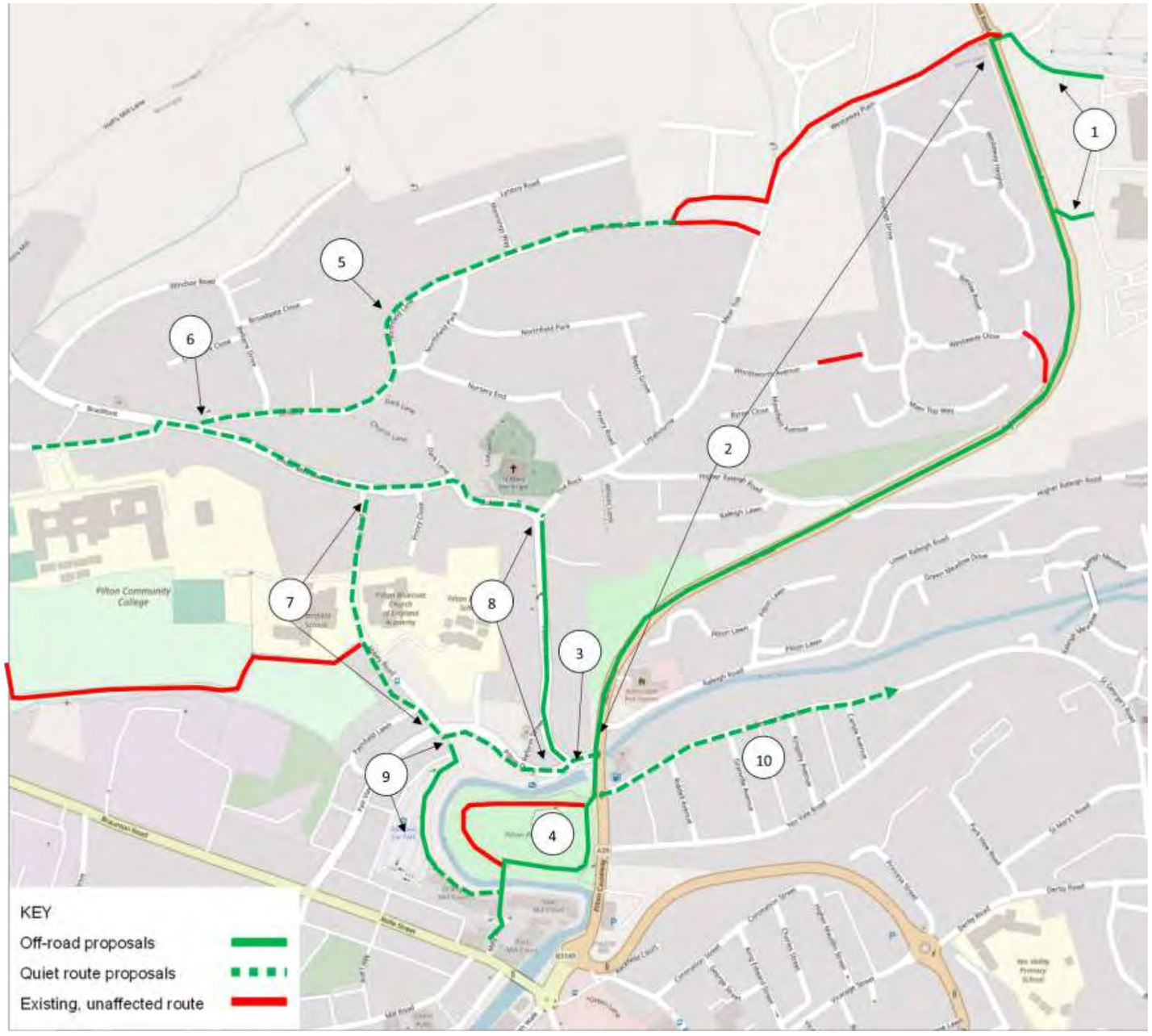
Pilton to Roundswell, Barnstaple - Cycling

Section C: Sticklepath Hill to Roundswell

This section of the Pilton to Roundswell route runs from Sticklepath Hill to Roundswell Industrial Estate. A detailed map of the proposals for this section can be seen in Figure 3-17 on page 44.The recommended improvements are

1. Review existing provision on Sticklepath Hill and improve provision for cycles using and crossing "Wrey Arms" Roundabout. Signpost a quiet route to PETROC from the top of Sticklepath Hill via Old Sticklepath Hill to provide a quiet route without the gradient of cycling up Old Sticklepath Hill.
2. Formalise the cut through from Elizabeth Drive to Old Torrington Road to allow cycles, creating a quiet route from PETROC via primarily residential roads. Consider the potential use of on-road markings to make navigation through residential streets clearer.
3. Create a shared use path along one side of Old Torrington Road towards the proposed relocated bus gate by reclaiming some of the verge and potentially narrowing the carriageway in light of the low traffic flows. Due to low pedestrian footfall, a minimum width of 3m is recommended. Ensure that any shared use facility cohesively ties in with the entrance to the Larkbear Local Plan allocation site.
4. Provide an off-road cycle link from the proposed bus gate relocation along the length of Gratton Way, linking into the proposals of a shared use path along the A3125 to Bickington Road from the Yelland to Barnstaple route.
5. Signpost Old Bideford Road as a quiet onwards route towards Bickington and Yelland, tying in with the existing section of cycle route at Roundswell and the proposals along the Yelland to Barnstaple Route.
6. Deliver a new cycle route from the future Larkbear Strategic Extension cycle bridge, with an on-road signposted section along Phillip Avenue and a traffic free route behind Grange Avenue to be delivered as part of future developments.

Figure 3-15 - Pilton to Roundswell section A proposals



Right (Point 8): The future layout of Magdalen Road, Exeter, which was converted from bi-directional traffic flow to a one-way street with a contraflow cycle lane as part of the Active Travel Fund during the Covid Pandemic.

Figure 3-16 - Pilton to Roundswell section B proposals

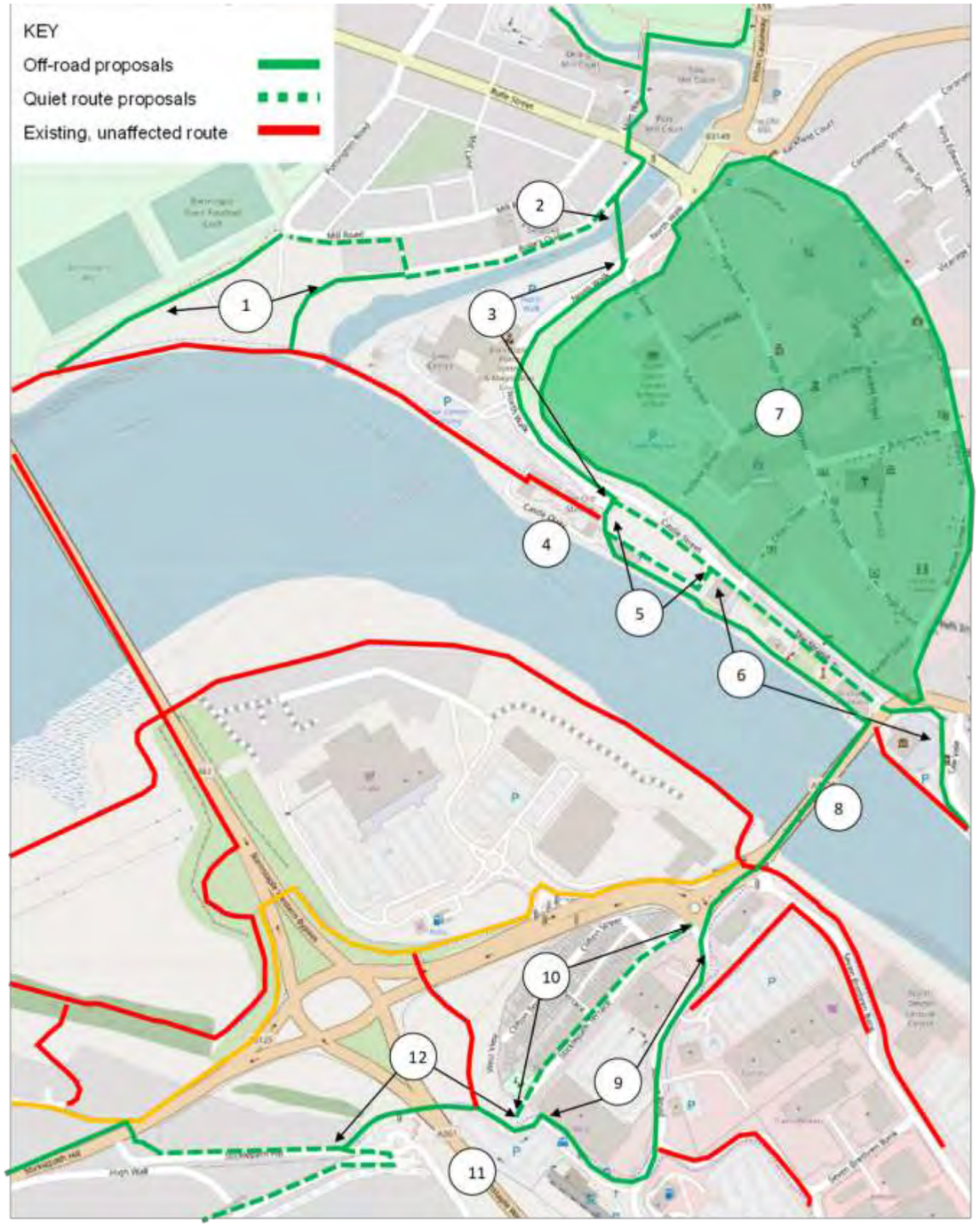


Figure 3-17 - Pilton to Roundswell section C proposals

Whiddon Valley to Barnstaple - Cycling

The approach towards improving the cycling infrastructure between the communities between Whiddon Valley and Barnstaple focuses on:

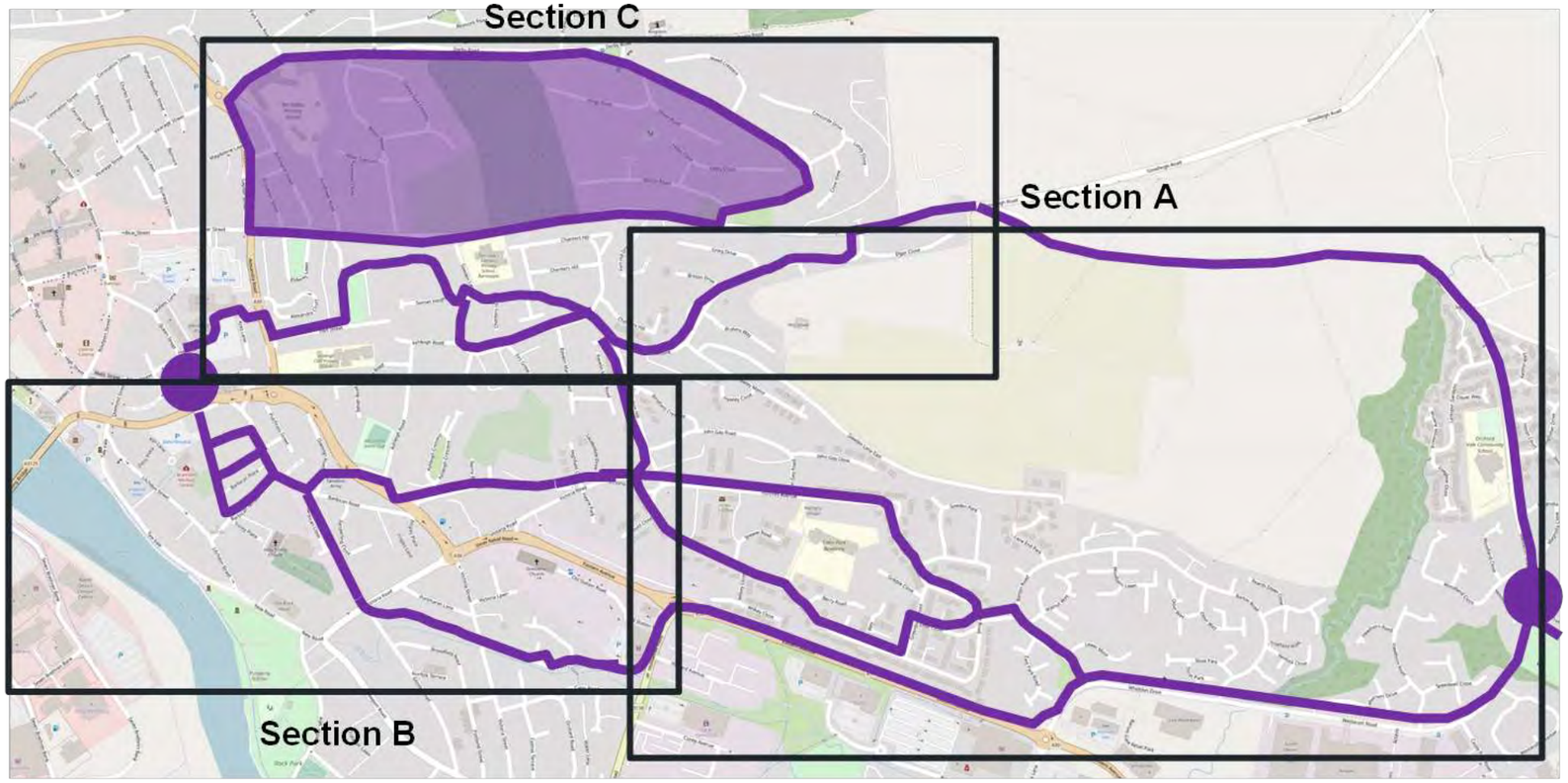
- Providing a safe, off-road route between future development in the east of Barnstaple with employment, education and the town centre
- Create a network of quiet and clearly signposted routes from the Goodleigh Road area to the town centre
- Provide additional low and traffic-free connections to the Tarka Trail

The proposals forming this route aim to provide high quality cycling links between Barnstaple town centre and the east of the town. The routes pass by existing residential, employment and education facilities, but also would provide improved cycle and walking links from the Westacott expansion to the east of Whiddon Valley. The routes also provide improved links to the Tarka Trail and improve the existing provision along NCN Route 3 to enable more residents and visitors to access traffic-free leisure routes.

While there is existing provision along large section of the route from Orchard Vale Community School to Taw Vale, there are key sections which are below the current cycle infrastructure design standards and need to be reviewed to help encourage and support an increase in cycling. There is also a lack of any clear route from the Goodleigh Road area of Barnstaple to the town centre, including a lack of crossing points for cycles over Alexandra Road.

The proposed interventions include replacing advisory on-road cycle lines with traffic-free provision, widening existing routes, providing more direct links along key corridors, installing additional cycle crossing points and highlighting networks of existing quiet routes.

The following pages detail the recommended improvements.



Whiddon Valley to Barnstaple - Cycling

Section A: Whiddon Valley to Hollowtree Road

This section of the Whiddon Valley to Barnstaple route runs from Westacott Road to Hollowtree Road via an alignment parallel to Eastern Avenue. A detailed map of the proposals for this section can be seen in Figure 3-18 on page 48.The recommended improvements are:

1. Replace the existing advisory on-road cycle lanes with an off-road cycle route on the southern/eastern side of the road, using some of the space utilised by the advisory cycle lane markings to enable a wider path via carriageway narrowing and realigning. Aim for a minimum width of 3m with a 0.5m grass verge.
2. Provide a cycle and pedestrian link alongside or through the park to the future development at the Westacott site.
3. Widen the existing path on the southern side to a minimum of 3m and manage the hedge to allow more space for all path users and improve visibility around the corner of its junction with Barton Road.
4. Utilise space available along Eastern Avenue to create a new cycle path along the side of the road with a grass verge buffer to provide a more direct link towards Barnstaple town centre. Aim to deliver a 4.5m wide shared use path with a minimum 0.5m wide grass verge to segregate from the carriageway.
5. Remove any painted segregation from the existing shared use paths and look to widen paths to a minimum of 3m as part of any future maintenance works. Replace the existing pedestrian crossing over Hollowtree Road with a signalled cycle crossing and widen the available space for waiting on both sides. The crossing type will be selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
6. Improve the existing underpass towards Tesco by removing barriers and improving lighting.
7. Investigate the potential for a green lane link from Goodleigh Road to Westacott Road, primarily for use as a leisure trail.
8. Signpost a network of quiet routes for people living in the existing residential areas.

Whiddon Valley to Barnstaple - Cycling

Section B: Hollowtree Road to Barnstaple

This section of the Whiddon Valley to Barnstaple route runs from Hollowtree Road in the south and Victoria Road in the north to Barnstaple Bus Station. A detailed map of the proposals for this section can be seen in Figure 3-19 on page 49.The recommended improvements are:

1. Link the route from Whiddon Valley with the proposed route from Landkey (shown in blue) to provide an off-road link to the town centre via the Tarka Trail.
2. Signpost Barbican Lane as a low traffic route from Victoria Road to Barbican Road.
3. Upgrade the existing signalised crossing over Barbican Road to allow safe cycle and pedestrian crossing from Barbican Lane/Ashleigh Road to Oakleigh Road. The crossing will be selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
4. Investigate opportunities for a cycle and pedestrian link from the existing cycle link at Gloster Road to Chester Terrace via Barbican Close or Sanderling Close.
5. Allow contraflow cycling around the network of streets from Barbican Terrace to Trinity Street.
6. Relocate the existing crossing to the bus station closer to the roundabout to make access to and from Trinity Street for all users and relocate street furniture.

Whiddon Valley to Barnstaple - Cycling

Section C: Goodleigh Road to Barnstaple

This section of the Whiddon Valley to Barnstaple route runs from Goodleigh Road to Alexandra Road via a network of quiet residential streets along a relatively low gradient route. A detailed map of the proposals for this section can be seen in Figure 3-20 on page 50.The recommended improvements are:

1. Review traffic management options around Bear Street, Derby Road and Gorwell Road to create sections of one-way traffic on the narrow sections of Bear Street between Bear Street and Fox Hill drive, and Derby Road between Alexandra Road and Bicton Street. The desire would be to widen footpaths for pedestrians to improve the routes to Barnstaple Town Centre and local schools, with a contraflow cycle lane. Ensure cycle crossings as part of core walking improvements.
2. Consider new section of shared use path from the lane to Westacott to Walton Way to provide safer off-road link towards NCN 3.
3. Clearly signpost a quiet network of roads through to Barnstaple Town Centre via Walton Way, Chanter's Hill, Sunset Heights, and ending at Fort Street.
4. Widen the existing ramp at the bottom of Fort Street and create a short length of shared use path to the existing crossing point.
5. Consider a cycle crossing to Azes Lane and 3m wide cycle route along the side of Hardaway Carpark to Queen Street. Crossing points will be selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.

Figure 3-18 - Whiddon Valley to Barnstaple section A proposals

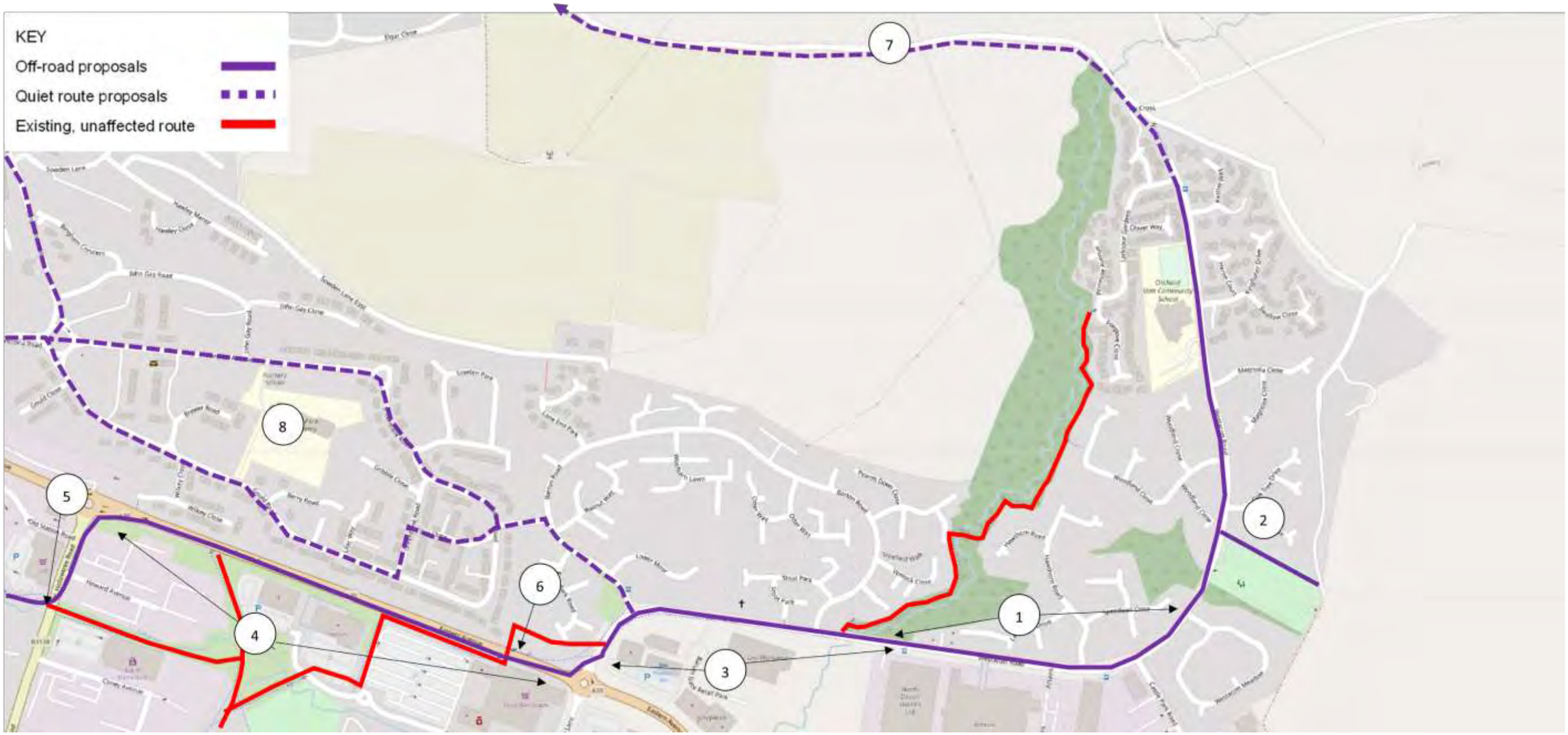
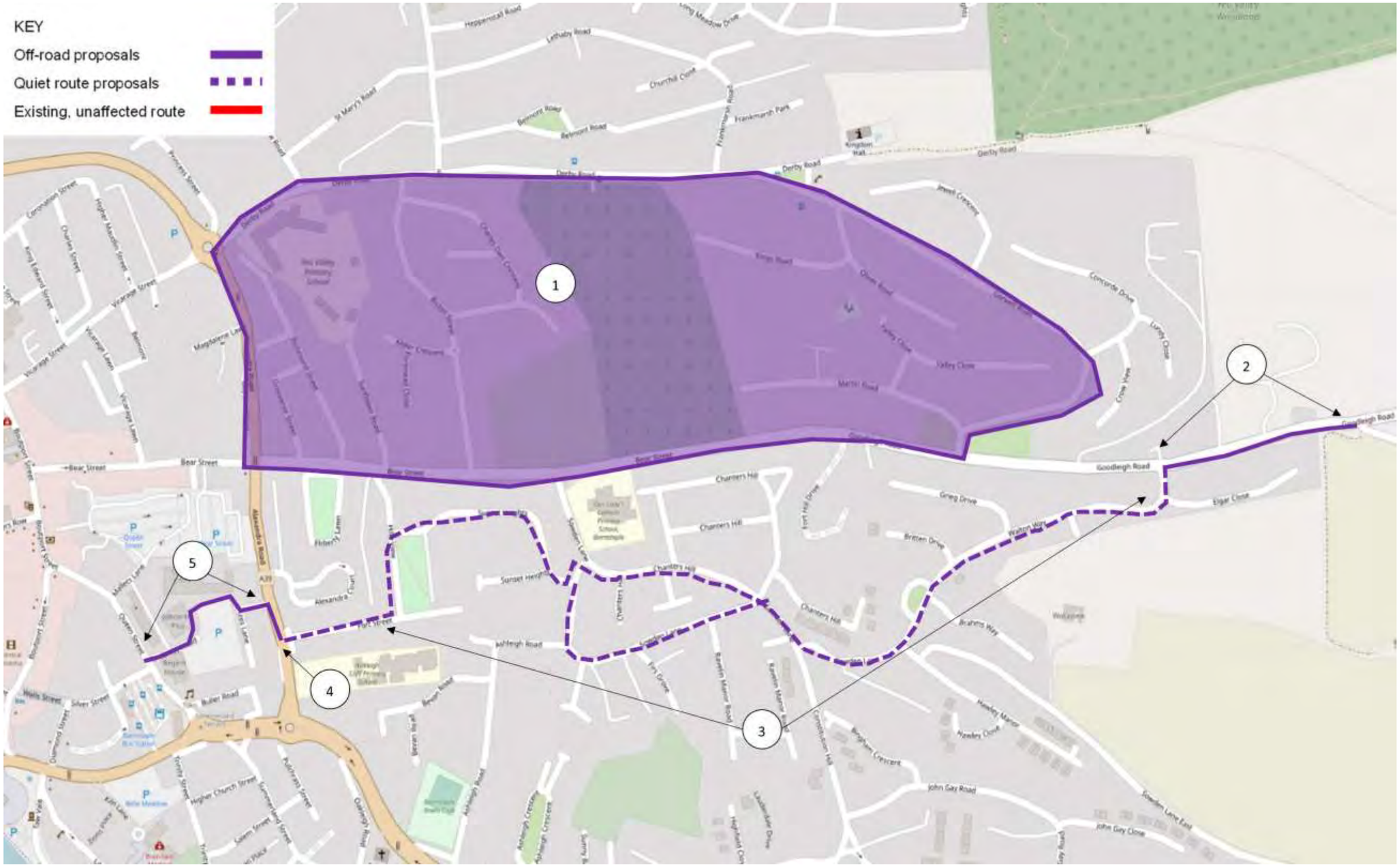


Figure 3-19 - Whiddon Valley to Barnstaple section B proposals

Figure 3-20 - Whiddon Valley to Barnstaple Section C proposals



Landkey to Barnstaple - Cycling

The approach towards improving the cycling infrastructure between the communities between Whiddon Valley and Barnstaple focuses on:

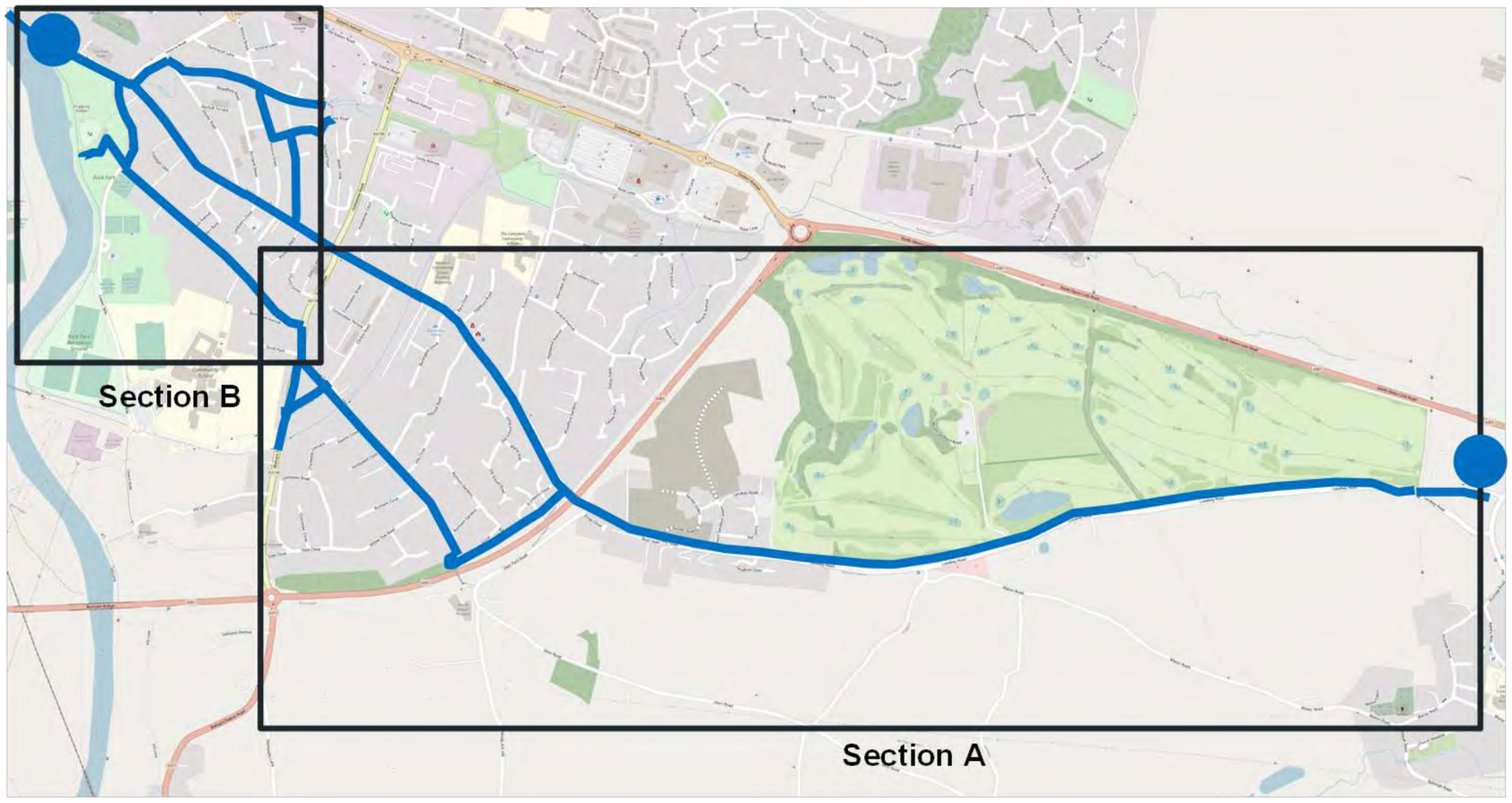
- Proving a traffic-free link from Landkey and future developments to the east towards Barnstaple for both pedestrians and cycles
- Guiding cycles along quieter sections of roads to help reach employment, education and leisure links in the area
- Improving access to existing traffic-free routes, including the Tarka Trail and the NCN Route 3 through Newport

This route aims to create a safe route suitable for all users between Landkey and Barnstaple Town Centre, helping to improve active travel links to employment sites, schools and shops en route. The route will also ensure access to existing links such as NCN route 3 to more people, improving access to traffic-free routes and destinations beyond the town centre.

Currently there is no off-road provision between Landkey and Rumsam, both for pedestrians and cycles, drastically limiting the amount of people able to choose sustainable travel options. There are also no clear routes directing people towards Barnstaple Town Centre and existing traffic-free routes in the area.

The proposals include on the following pages include provision for a new shared use route between Landkey to Newport, improvements to access along existing traffic-free routes, traffic calming and improved signing to improve on-road travel.

The following pages detail the recommended improvements. Page 54 also includes an example of remaking of a carriageway to highlight cycle priority.



Landkey to Barnstaple - Cycling

Section A: Landkey to Newport

This section of the Landkey to Barnstaple route runs from Landkey and the proposed cycle bridge over the A361 to Newport via Landkey Road. A detailed map of the proposals for this section can be seen in Figure 3-21 on page 53.The recommended improvements are:

1. Ensure off-road cycle and pedestrian links to Landkey as part of the delivery of a bridge over the North Devon Link Road.
2. Deliver a new shared use path along the length of Mount Sandford Road to create a continuously traffic-free route for cycles and pedestrians between Landkey and Barnstaple. Create a cycle link at the end of Four Oaks Close, currently a footpath, to allow cyclists crossing the A361 onwards towards Barnstaple to bypass the busier and higher speed junction of Mount Sandford Road and Blakes Hill Road. The crossing will be selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
3. Extend the existing footpath on the northern side of the road from Mount Sandford Green to the Newport cycle route along the old railway. Widen to at least 3m wide to accommodate relatively low pedestrian footfall but consider making wider along the hill to limit conflict with people cycling downhill. Review crossings at each junction to prioritise cycles, preferably by installing raised crossings with give way markings for vehicles. The crossing points selected will be in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
4. Review access onto the existing cycle route along the old rail line to improve its image and general accessibility.
5. Improve access to the existing shared use path between Landkey Road and Rumsam Road, with a wider slope on the Rumsam Road end to make joining and leaving the path easier. Undertake a review of the existing fencing along the play park with the aim to improve access to green space.
6. Signpost a quiet on-road route via Rumsam Road towards South Street/Bishops Tawton Road as a direct route towards The Park Community School and Barnstaple Town Centre.
7. Review the existing footpath along Bishops Tawton Road heading towards the entrance of The Park Community School to assess the potential to widen the footpath primarily for children walking to school. In doing so, review the junction with Rumsam Road to make it safer for cyclists joining South Street towards Newport Road and Park Lane. Consider light measures such as buildouts at the end of marked bays to ensure slower traffic flows even when parked vehicles are absent.

Landkey to Barnstaple - Cycling

Section B: Newport to Barnstaple

This section of the Landkey to Barnstaple route runs from Hollowtree Road and South Street towards Barnstaple Longbridge via alignments along Park Lane and Newport Road. A detailed map of the proposals for this section can be seen in Figure 3-22 on page 54.The recommended improvements are:

1. Signpost quiet route via Park Lane as a direct way to the town centre and Tarka Trail. Limited interventions would be required on Park Lane itself due to the absence of through traffic and the limited number of properties. Review the existing gates at the Ladies' Mile end of Park Lane to improve accessibility for family and adapted cycles and install a raised crossing along Ladies Mile to the entrance with Rock Park to highlight pedestrian and cycle priority to drivers. The crossing will be selected in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
2. Formalise a cycle link through Rock Park to the existing shared use path, omitting the requirement to travel south along Ladies' mile to be able to formally join.
3. Consider a 20mph speed limit along Landkey Road and build on the existing light traffic calming measures along the route. Due to the footpath constraints, cycling would need to need to continue on road, however with a review of traffic speeds and volumes it could be bought to a safer level.
   If vehicle flows remain high consider advisory cycle lanes with no centre markings, similar to Russel Way in Exeter, to lower traffic volumes and highlight priority to cycles. Figure 4.1 from LTN 1/20 guidance highlights the acceptable provision standards at given speed limits and traffic flows.
4. Provide advance stop lines for cycles at the junction with South Street. Review the existing signal timings to prioritise pedestrians crossing one or two arms.
5. Highlight the modal filter from Cyprus Terrace as a quiet route to the existing shared use path along Coney Gut.
6. Consider a shared use path extending from Gloster Road to the existing shared use path along Taw Vale. The alignment could potentially pass through the park if a minimum width of 3m is not achievable along the carriageway.
7. Ensure the delivery of the already proposed link to the Larkbear Strategic Extension via a new bridge over the railway line.

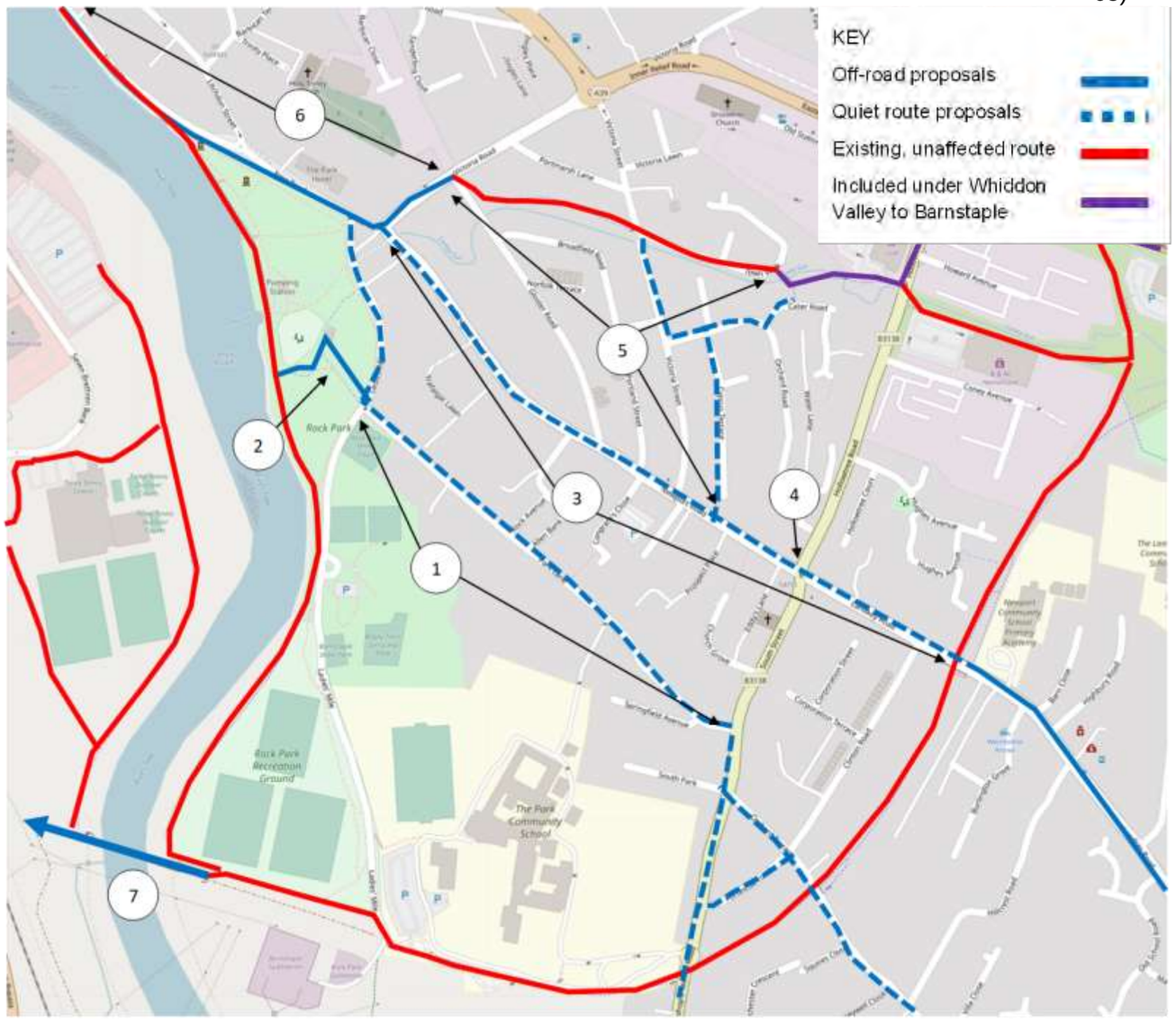
Figure 3-21 - Landkey to Barnstaple section A proposals

KEY

Off-road proposals

Quiet route proposals

Figure 3-22 - Landkey to Barnstaple section B proposals



Top: The approprioate provision for cycling for given traffic speeds and volumes. This higlights that, in areas where space constraints limit the scope for protected cycling spaces, reducing the volume and speed of motor traffic can create acceptable conditions for on road cycling. On road cycle lanes can also be a suitable alternative along routes with higher traffic volumes provided the routes have low traffic speeds, however LTN guidance reccomends the removal of centre lines would only be suitable on roads with around 4,500 vehicles per day, or 500 vehicles at peak hours.

Bottom: Example of centre line removal to facilitate two advisory cycle lanes (From LTN 1/20 pg. 63)

Figure 4.1: Appropriate protection from motor traffic on highways

Speed Limit[1]	Motor Traffic Flow (pcu/24 hour)[2]	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph[3]	0					
	2000					
	4000					
	6000+					
30 mph	0					
	2000					
	4000					
	6000+					

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

Appledore to Bideford - Cycling

The approach towards improving the cycling infrastructure between the communities between Appledore and Bideford focuses on:

- Providing a safe cycle route linking popular visitor and tourist destinations
- Improving cycle links to jobs and education sites
- Quieter roads providing clear and safe routes

Currently some key sections of the route are not served by dedicated cycle routes or quiet alternative routes, notably along the A386 between Northam and Appledore, which serves as the primary corridor from Appledore to Bideford Town Centre. There is also a lack of cycle provision across the A39, with the existing shared use path terminating shortly south of the roundabout due to the narrow highway width leading to an incomplete connection not suitable for many users.

The links identified alignment aims to:

- Improve connections from Appledore to Northam, with new quiet routes and shared use paths providing links into the town centres
- Create a quiet route around the A39, utilising Limers Lane and a connection through the proposed development site taking cycles away from the busy roundabout leading to the Torridge Bridge
- Provide a traffic-free cycle link from the Torridge District Council offices to Bideford Quay

There is also future potential to link this route with the proposed Kenwith Valley trail from Bideford to Westward Ho! The proposals include the identification of a quiet route from Northam Road to Bideford Quay which would act as a signposted low-traffic route for residents travelling to Bideford Town Centre and beyond, however also passed past the entrance to Kenwith Valley Nature Reserve.

Proposals comprise a mix of shared use paths and signposted quiet roads.

The following pages detail the recommended improvements. Page 58 also includes an example from The Strand, Barnstaple, of how road space can be reallocated to prioritise pedestrians. The pedestrian zone on The Strand only operates at certain times during the day, and so was designed to be suitable for traffic and loading.

Appledore to Bideford - Cycling

Section A: Appledore to Northam

This section of the Appledore to Bideford Route runs from Appledore quayside to Northam, joining onto the existing shared use path along the A368. A detailed map of the proposals for this section can be seen in Figure 3-23 on page 58 .The recommended improvements are:

1. Review the public realm around Appledore Quay with the aim to create more space for pedestrians and businesses while maintaining parking for residents.
2. Create a network of quiet routes around the outskirts of Appledore to help guide cyclists along suitable quiet routes requiring minimal intervention. These include:
    a. A route into and out of Appledore via Wooda Road. Due to its relatively low gradient compared to other routes out of the town, this would be the best route to signpost for people cycling towards Bideford. Consider a modal filter north of the entrance to the shipyard to from a ‘green lane’. Ensure clear signage and links from the development on Pitt Hill
    b. Going into Appledore, Staddon Road provides a direct route to the Quayside. Due to its gradient, it would not be suitable for most users to cycle up
    c. Signpost Torridge Road as being a quiet route towards Westward Ho! or generally from the northern end of Appledore towards Bideford. Broad Lane is fairly suitable for cycling up, however for most journeys Wooda Road is more direct. Consider a wider quiet network of routes towards Westward Ho! as part of the development of the Kenwith Valley Trail
3. Provide a shared use path from Staddon Road to Northam/Bloody Corner. Due to the low pedestrian footfall of <300 per hour, a minimum width of 3m should be suitable. A 0.5m separation to the highway is also recommended.
4. Manage the existing shrubbery on the southern side of the A386 from Bloody Corner to Windmill Lane and widen to a minimum of 3m to allow for a shared use path. Preserve existing parking for residents which help to slow traffic flows, minimising the requirement for separation
5. Continue shared use path on the eastern side of the carriageway, using the existing verges to help enable the widening. At some points carriageway realignment and narrowing may be required to facilitate footpath widening.
6. Move the wall at the northern end of Foxhole Lane to widen the path to allow a cycle route to continue away from the main road. Review the crossing of Clevelands Park and of Churchill Way to highlight pedestrian priority. The crossing selected will be in accordance with Table 10-2: Crossing design suitability, LTN 1-20.
7. Widen the existing pavement between Churchill Way and the Fore Street slip road to 3m to enable a shared use path. Review potential for public realm improvements along Fore Street to give pedestrians and cyclists priority while preserving vehicle access. Consider measures similar to the Strand in Barnstaple where the road surface is level to the pavements to highlight the shared space nature.
8. Signpost the one-way system around Cross Street and North Street for cyclists to help guide people to and from Northam Town Centre using the quieter primarily residential roads. Install a crossing for people to be able to re-join or leave the shared use path. The crossing selected will be in accordance with Table 10-2: Crossing design suitability, LTN 1-20.

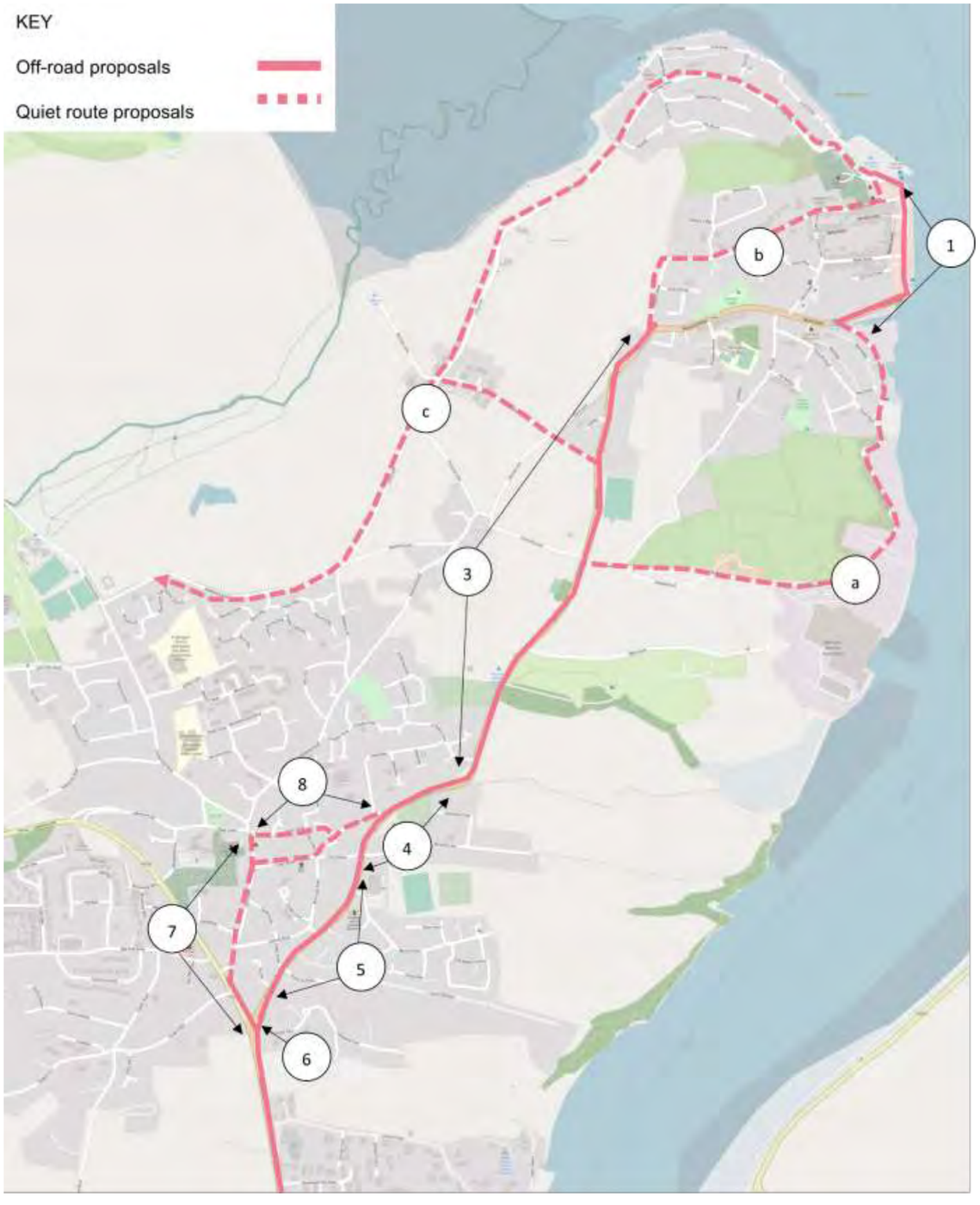
Appledore to Bideford - Cycling

Section B: Northam to Bideford

This section of the Appledore to Bideford Route runs from the existing shared use path along Heywood Road to Bideford Longbridge via Limers Lane and The Quay. A detailed map of the proposals for this section can be seen in Figure 3-24 on page 59.The recommended improvements are:

1. Review width of the existing shared use path and the priority for pedestrians/cycles at junctions to ensure it is up to LTN 1/20 standards. Widening the existing path would not be a priority, but could be undertaken alongside planned road resurfacing works in the future.
2. Ensure delivery of a link along with the development along Limers Lane to create a safe, traffic-free passage under the A39. The A386 is not suitable for a traffic free cycle route due to width constraints on the hill leading up to the roundabout. Ensure the route via Limers Lane is clearly signposted for visitors to the area, and ensure the junction of Limers Lane with the A386 offers enough visibility to drivers and cycles have visibility of each other turning.
3. Review and improve the crossings around the roundabout for both pedestrians and cycles.
4. Signpost Riverside Close as a low traffic route towards Bideford Town Centre. Ensure the route heading north at Chircombe Lane is clearly signposted.
5. Create a new cycle route from the Torridge District Council offices to Bideford Quay by widening the existing section of South West Coast Path.
6. Review potential alignments for the route passing through or along Victoria Park, including consideration to allow cycling through parks in a similar manner to Exeter. However, any alignment would need to be either segregated or sufficiently wide to reduce conflict between cycles and pedestrians, especially during the holiday periods. Alternative alignments also include via the car park or South West Coast Path.
7. Install a raised crossing over the car park entrance to highlight pedestrian and cycle priority. Improve the visibility of the existing advisory cycle route along The Quay and behind the Lundy Shore Office, potentially by marking the advisory lane with a separate colour or surface type, to emphasise the cycle lane for vehicles parking and loading.
8. Review the existing shared use path along The Quay, as currently it conflicts with the pedestrian space such as benches and planters. Review the potential to either widen one side of the path to allow more space for cycles, or continuing the advisory cycle lane with clear markings (as in point 5) along the waterfront.
9. Signpost and review potential traffic calming measurers along the on-road route from Ropewalk to Northam Road via Stella Maris Court as a quiet route between the town centre and Kenwith Valley Nature Reserve. This quieter route has potential to tie into the proposed Kenwith Valley Trail but in the meantime would primarily act as a route to promote access to the town centre and beyond.

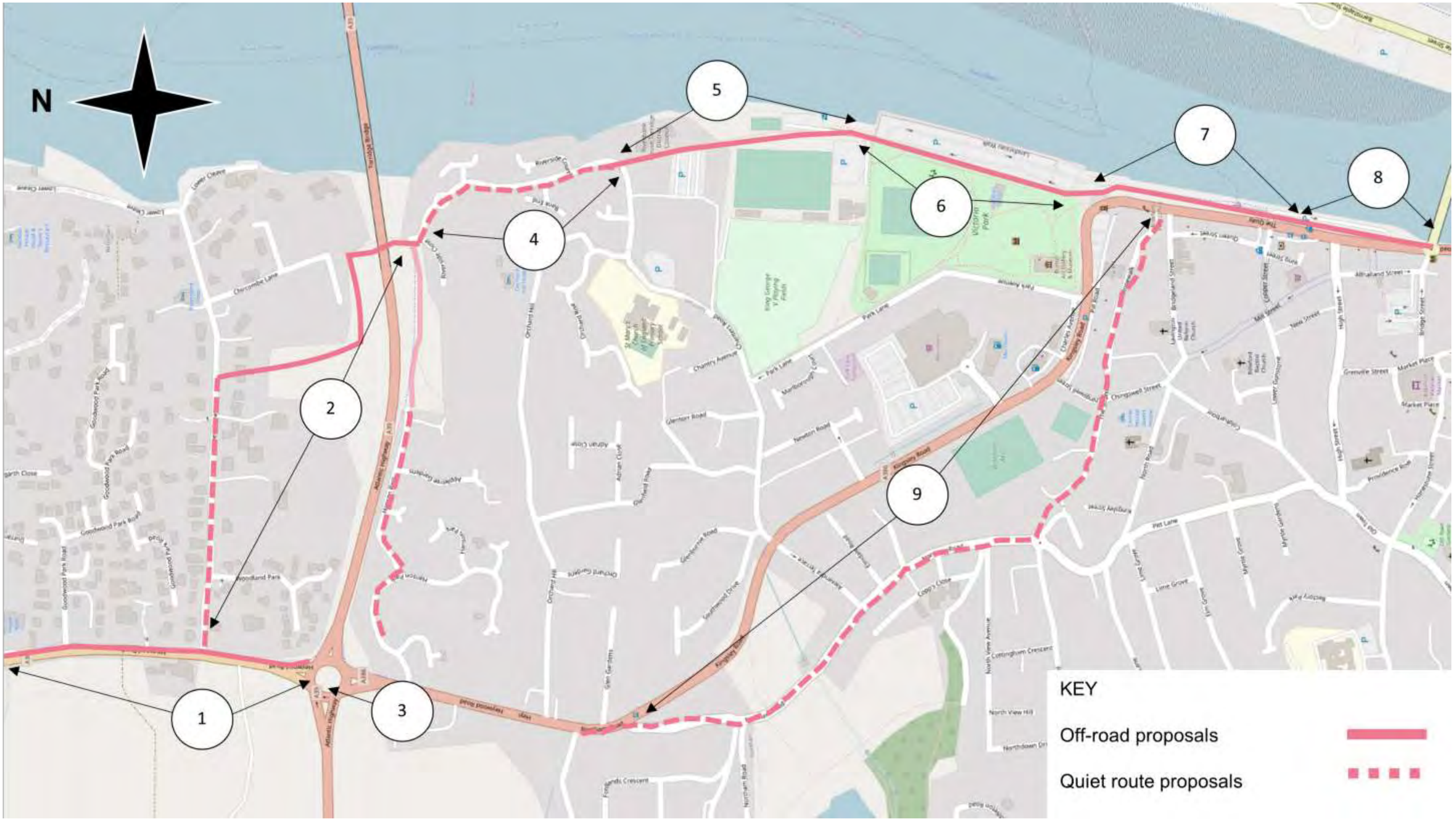
Figure 3-23 - Appledore to Bideford section A proposals



Top: Current layout of The Quay, Appledore

Bottom: The pedestrianised road along The Strand, Barnstaple

Figure 3-24 - Appledore to Bideford section B proposals



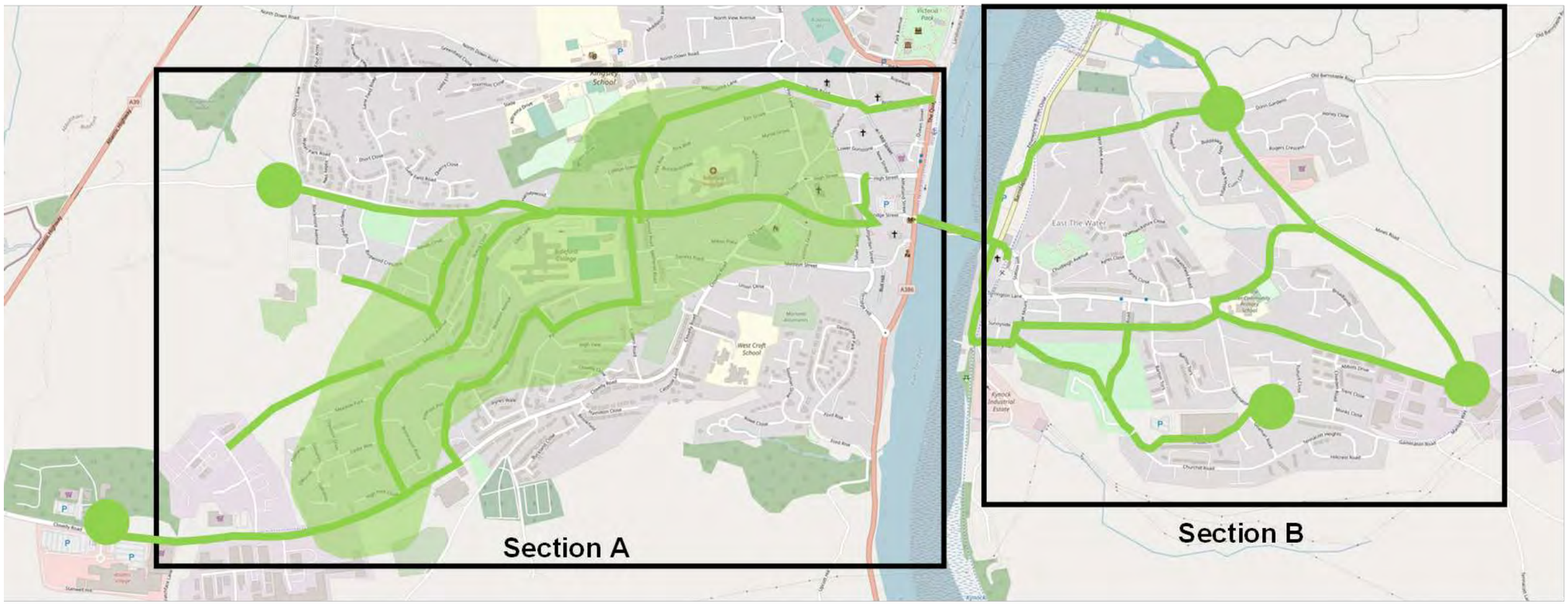
West Bideford to East-the-Water - Cycling

- Improving access to the Tarka Trail, providing improved accessibility from the trail to the local area and boosting the visitor profile of the area
- Connect new developments in the surrounding area to key destinations via existing residential areas
- Provide clear and safer routes to follow along sections with a gentler gradient

The West Bideford to East-the-Water route focuses on delivering key links from both sides of the River Torridge towards Bideford Town Centre, providing a link from Local Plan development allocations via existing residential areas, employment and education facilities. Both sides of the Torridge are on steeper gradients, with the East-the-Water side being notably steep in some sections, and so the most direct routes may not be suitable for all users. However, lower gradient routes have been identified to provide more comfortable cycle links where possible.

The proposals also include recommendations to improve access onto and from the Tarka Trail, which serves as a link to and from Bideford Town Centre.

The following pages detail the recommended improvements.



West Bideford to East-the-Water - Cycling

Section A: West Bideford to Longbridge

This section of the Appledore to Bideford Route runs from the Local Plan allocations situated to the west of Bideford Longbridge. A detailed map of the proposals for this section can be seen in Figure 3-25 on page 63.The recommended improvements are:

1. Undertake an area wide review of traffic flows with the aim of creating a network of quieter streets for cycling, accessing Bideford College and the town centre. Due to the historic nature of many of the roads, continuous segregated cycle infrastructure is not achievable despite the need for a cohesive network to serve existing residents and facilitate future growth to the west. Interventions could include one-way systems with cycle contraflow, bus gates, modal filters and other calming methods.

   Prioritise Moreton Park Road and Pynes Lane as routes which should be quiet enough for all cyclists to use, as well as investigating the potential to widen footpaths along Abbotsham Road by narrowing the carriageway.

2. Possible scope for a 3m minimum wide shared use path on the northern side of Abbotsham Road, enabled by removing some of the verge/shrubbery and narrowing the carriageway at points.

3. Review the existing shared use path to bring up to LTN 1/20 standards and to develop a more direct cycle network. This includes removing barriers, creating a more direct alignment west of Birdwood Crescent and creating a safer crossing point with more visibility at the eastern end.

4. Create a shared use path from Bailey Mews to Laurel Avenue along the fence backing onto the playing fields.

5. Create a surfaced route, primarily for pedestrian use, along the existing permissive path from the business units to Laurel Avenue. Currently the path is completely unsurfaced and so is inaccessible to users with limited mobility or pushchairs when the ground is too wet. While the route would primarily serve pedestrians, it would also benefit people cycling from Local Plan allocations to the west.

6. Extend the existing shared use path along on the northern side of Clovelly Road to Pridham Place at a width of 3m. Utilise the existing modal filter at the southern end of Pridham Place to create a quiet cycle link to Stucley Road and Pynes Lane. The route is being completed from B&M on Clovelly Road to the McDonalds, and beyond to new housing almost all the way to the A39 (see Table 3-2). Some of this is being developer delivered, but there is a gap in the network which the LCWIP will need to fill.

7. Use clear signing to highlight suitable routes into and from the Town Centre. Travelling into town, a route along Honestone Street, with contraflow cycling permitted Grenville Street would be direct, but would be too steep of a gradient for the cycle back. A review of the junctions along the routes is also recommended, notably the junction of Lime Grove with Pitt Lane.

8. Complete missing sections of shared use path along Clovelly Road to link up to development West of Bideford.

West Bideford To East-the-Water - Cycling

Section B: Longbridge to East-the-Water

This section of the West Bideford to East-the-Water route focuses on the section across the River Torridge and routes towards Manteo Way, including improved access points onto the Tarka Trail. A detailed map of the proposals for this section can be seen in Figure 3-26 on page 64.The recommended improvements are:

1. Renew the investigation into a potential traffic-free cycle and pedestrian crossing over the River Torridge or a reduction of traffic along the Longbridge to create a suitable cycling environment for all ages and abilities. Currently the Longbridge poses a barrier to people who might cycle along the Tarka Trail into Bideford, notably families and adapted cycle users, due to the road layout. Include a review of both mini roundabouts at each end of the bridge and the route from the access steps to the Tarka Trail.
2. Create a shared space along the river front permitting cycle access. Investigate the potential for a new sloped access to the Tarka Trail from Ethelwynne Brown Close, providing a step-free and low traffic access point onto the Tarka Trail.
3. Reprofile the entrance to the Tarka Trail from Barnstaple Street to make accessible to all users, including removing the barrier and widening the stone wall entrance.
   If the sloped access in Point 2 is not deliverable, consider widening the existing footpath on the eastern side of the road to create a minimum of 3m, but preferably 4.5m due to the wide carriageway width, to the existing pedestrian crossing.
4. Signpost Old Barnstaple Road as a quiet route. Consider a short length of 3m wide shared use path from the bottom of Old Barnstaple Road to the Tarka Trail and widen access at the eastern end with Manteo Way to make cycle access easier.
5. Review the existing lengths of shared use path along Manteo Way and bring up to LTN 1/20 standards, with a minimum 3m width due to relatively low cycle and pedestrian volumes. In many areas additional verge could be used. However, due to the high traffic volumes and heavy goods vehicles heading to the industrial estate, consider reviewing hatching and carriageway width ahead of future resurfacing works to determine scope to widen while maintaining a 0.5m verge between the path and the road.
6. Widen the existing shared use path to at least 3m from Manteo Way to the Barnstaple Street crossing to the Tarka Trail. Review the existing crossing and consider a parallel cycle crossing. The crossing selected will be in accordance with Table 10-2: Crossing design suitability, LTN 1-20. Widen the entrance onto the Tarka Trail to improve accessibility for adapted cycles.
7. Reprofile the path at the eastern end or Mines Road to make it easier for cycles to access from Manteo Way. Signpost as a quiet on-road route.
8. Look to provide a 3m wide shared use path along Alverdiscott Road from Manteo Way to Cliveden Road. Install a removable modal filter on Alverdiscott Road between Cliveden Road and Gammaton Road to remove most traffic from the road, creating a quiet route towards the school.
9. Formalise cycle route through the park to Clifton Street.
10. Signpost quiet routes into town via Chubb Road, Pollyfield Park and Clifton Street. Nutaberry Hill is quite steep, however only for a relatively short length. Clearly signpost and mark the routes from Alverdiscott Industrial Estate to Bideford and the Tarka Trail. Continue the signposted route down Torrington Lane, but review volumes of goods vehicles to minimise conflict.

    We also recommend a review investigating the potential to formalise the entrance onto the Tarka Trail from Sunnyside which is currently used by pedestrians walking along the trail.

    .

Figure 3-25 - West Bideford to East-the-Water section A proposals

Figure 3-26 - West Bideford to East-the-Water section B proposals

4. Network Planning for Walking

Introduction

Most of the roads within the study area have footways for people walking, with minimum footway provision having been a core part of design guidance and scheme delivery for many decades. However, there is still a need to continuously improve conditions for walking, helping to unlock increased walking rates within the study area.

As shown in Figure 4-1, walking rates vary across the study area, with rates of residents walking to work ranging from under 5% outside Bideford and Barnstaple town centres to over 30% in some of the most urban areas. The area with the highest proportion of residents walking to work is the Vicarage Street area of Barnstaple, with over 35% walking to work. In general, Barnstaple Town Centre sees the highest walking to work rates, with most areas in and around the town centre seeing over 20% of residents walking to work. In Bideford, walking rates are slightly lower but still see many areas close to the town centre with walking to work rates around 20%.

In the settlements west of Fremington and in Northam, Appledore and Westward Ho! however, rates of walking are generally below 10%, with many areas seeing rates less than 5%. Whilst these areas do not see many people commuting on foot, they do have an older than average population for the area, with locations such as Westward Ho! and Appledore also seeing high volumes of visitors joining the pedestrian footfall.

Current and Future Origins and Destinations

The LCWIP Technical Guidance sets out that identifying demand for a planned walking network should start by mapping the main origin and destination points. The methodology is described in Chapter 3, and Figure 4.2 on the following page shows these origins and destinations.

Identifying Core Walking Zones

The next stage of the LCWIP process was to identify Core Walking Zones, normally consisting of walking trip generators that are located close together such as town centres or business parks. An approximate five-minute walking distance of 400m is used as a guide to the minimum extents of the Core Walking Zones. The higher density core walking zones, within Barnstaple and Bideford town centres, were classed as Tier 1. For these, a wider 2km radius was also considered where key walking routes into the centres were also identified. The rest of the Core Walking Zones were classed as Tier 2.

As seen in Figure 4-2, most of the Core Walking Zones identified from assessing the density of walking destinations are around village and town centres, as well as employment and industrial areas. These Core Walking Zones include

- Barnstaple Town Centre (Tier 1 Core Walking Zone)
- Bideford Town Centre (Tier 1 Core Walking Zone)
- Appledore (Tier 2 Core Walking Zone)
- Northam (Tier 2 Core Walking Zone)
- Westward Ho! (Tier 2 Core Walking Zone)
- Atlantic Village (Tier 2 Core Walking Zone)
- Fremington Village Centre (Tier 2 Core Walking Zone)
- Roundswell Industrial Park (Tier 2 Core Walking Zone)

identifying and Auditing Key Walking Routes

The important pedestrian corridors connecting into the Tier 1 Core Walking Zones, as well as the key pedestrian corridors within the Tier 2 Core Walking Zones, were then identified. The identified Core Walking Zones and important pedestrian routes are also shown in Figure 4-3.

To narrow the selection of walking routes to audit, an exercise identifying housing density around the study area was undertaken to determine which other routes leading into the identified core walking zones are likely to see the highest footfall. Routes which coincide with the previously identified strategic cycle routes have already been audited under the Route Selection Tool (RST) for cycling.

Trained WSP staff audited the routes using the DfT Walking Route Audit Tool (WRAT), developed to assist Local Authorities for the purpose. The auditing methodology focuses on the five core design outcomes for walking infrastructure:

- Attractiveness;
- Comfort;
- Directness;
- Safety; and
- Coherence

The assessment considers the needs of all people who use walking routes, including the elderly, people with visual, mobility or hearing impairments, with learning difficulties, people using wheelchairs or mobility scooters, and children.

The section corridors which scored poorly were then identified as most in need of improvement to be progressed. In total, 4 core walking routes were taken forward to be assessed for improvements. Further details of the routes and associated improvements are shown on the following pages.

Figure 4-1 - Percentage of residents walking to work (Census 2011)

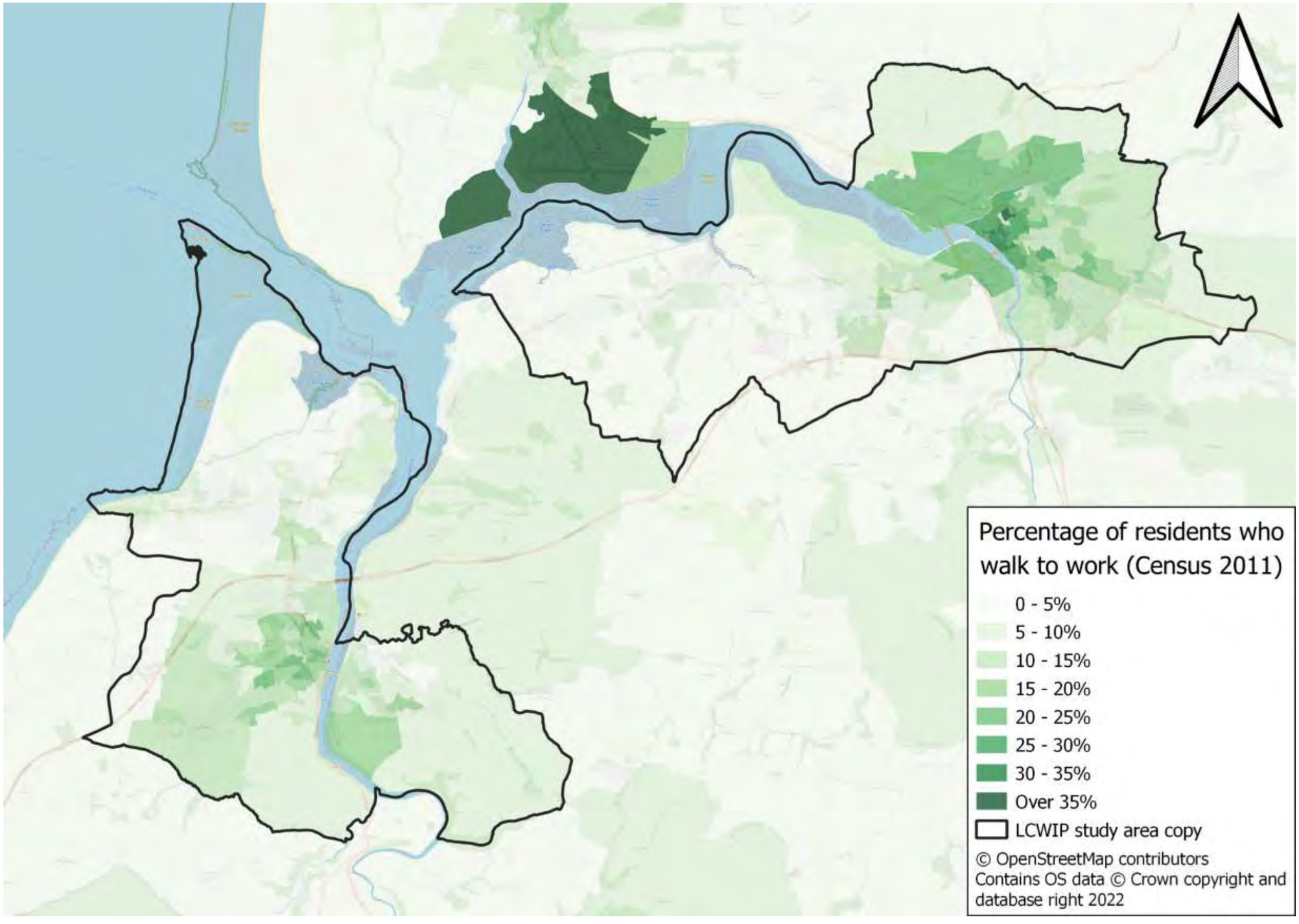


Figure 4-2 - Identified Core Walking Zones

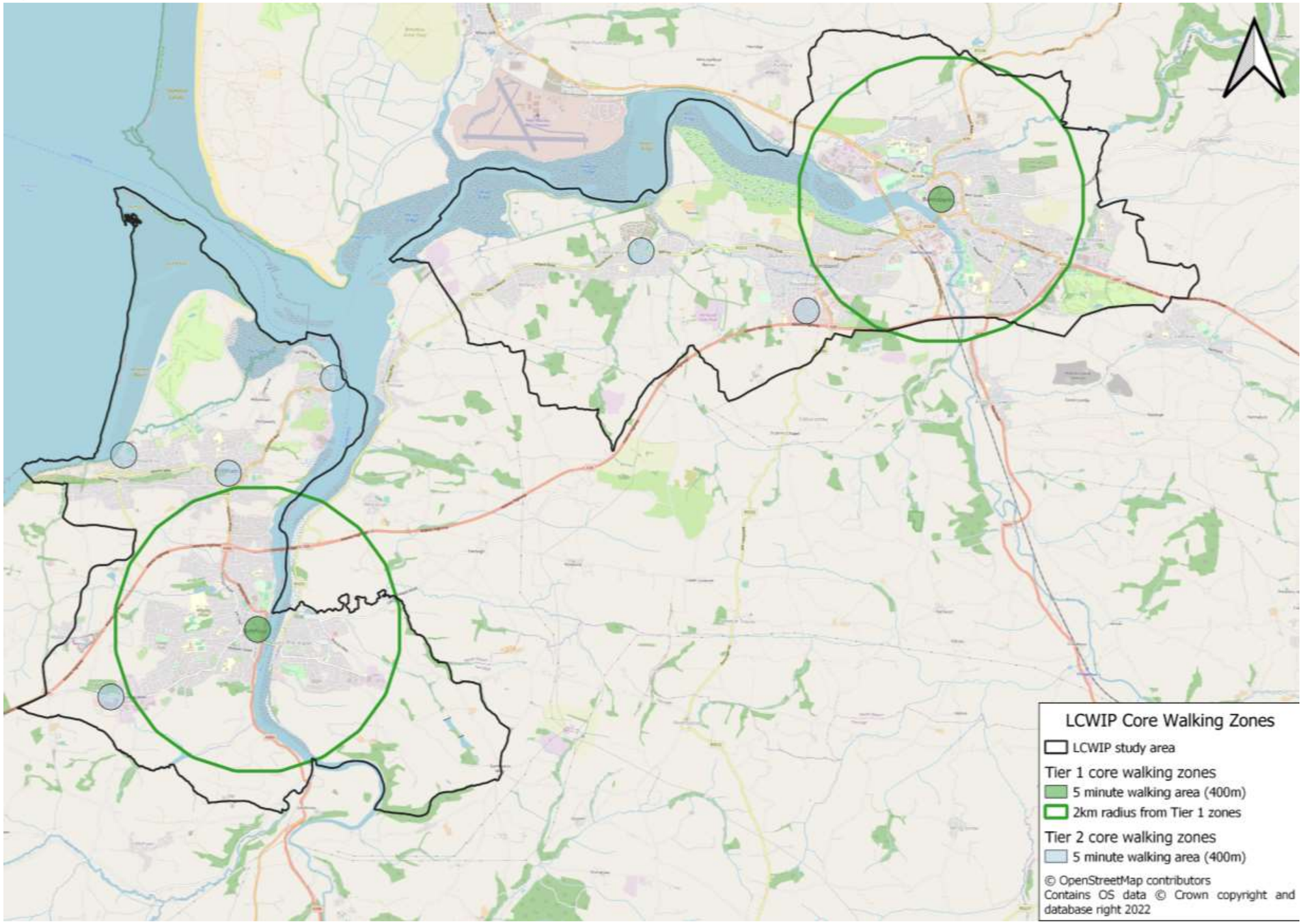
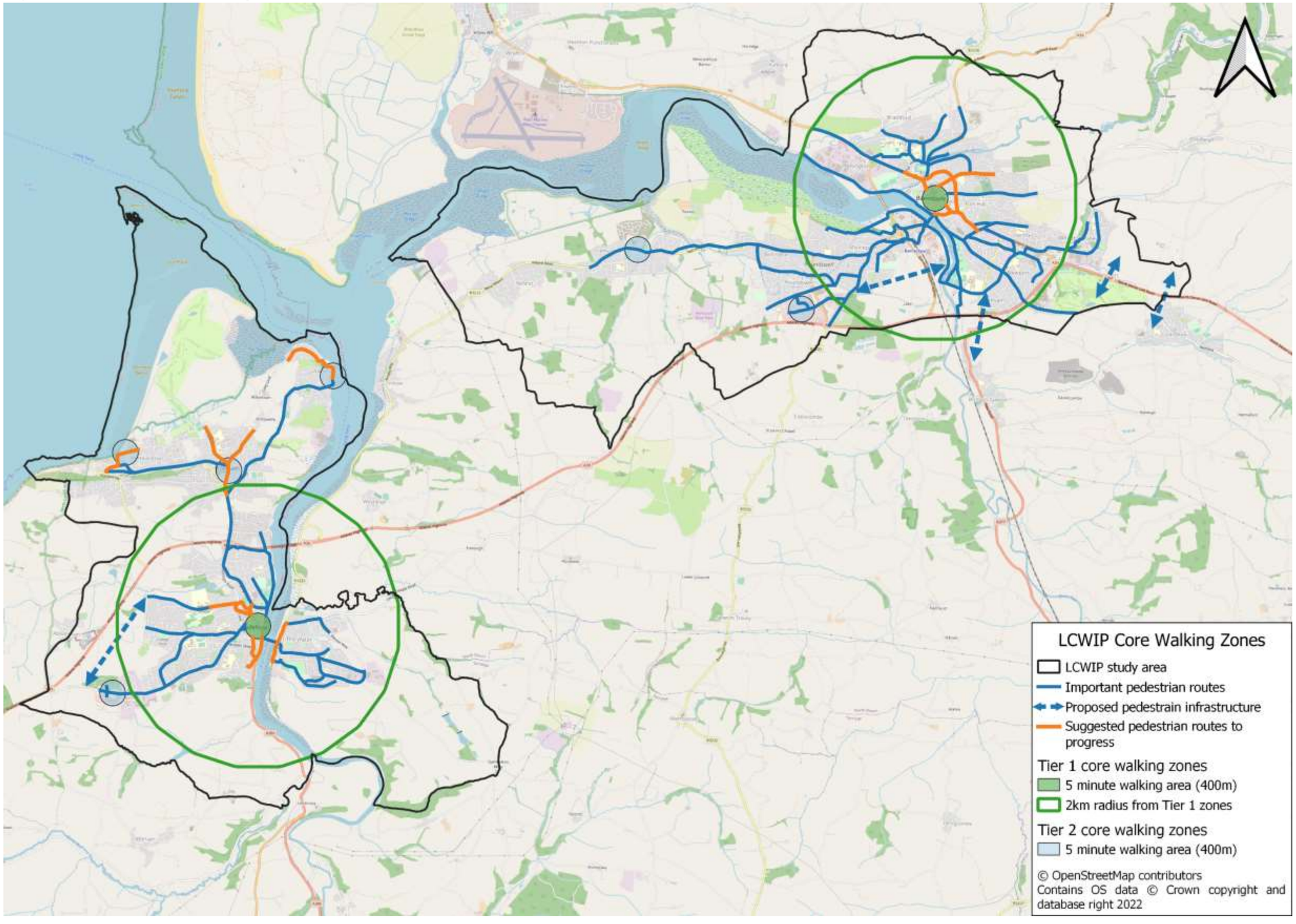


Figure 4-3 - Pedestrian routes prioritised to audit



Westward Ho! – Walking

The Westward Ho! Core Walking Zone focuses on improving access around the tourist centre of the town for all path users.

The area is a popular holiday resort for families and older visitors, meaning improved access for all path users is a high priority. In particular there is a need to ensure easy access to footways for users with limited mobility, mobility aids or with prams, to ensure all residents and visitors can access and enjoy the area.

These improvements will:

- Rebalance highway space towards pedestrian activity through the town
  Improve crossing points for everyone, particularly wheelchair / mobility scooter users
- Create a more attractive and accessible public realm, encouraging more visitors to explore and stay in the area and ultimately benefiting local businesses

These proposals include:

1. Reclaim carriageway space and install formal pedestrian crossing
2. Narrow the carriageway to enable wider footpath to make usage during busier months or with a wheelchair easier. The existing one-way system means space could be reallocated without impacting traffic flows or parking.
3. Conduct an area wide review of dropped kerbs and street furniture to ensure all path users can access pavements on both sides of the road (Not shown on map).
4. Consider introducing a one-way system along to Avon Lane, freeing up space by reducing carriageway width to accommodate traffic in one direction. This would include narrowing the junction with Nelson Road to allow more space for pedestrians walking around the junction.
5. New road surface with traffic calming measures to create a low-traffic town centre with a focus on pedestrians. Retain the bus stop and loading bays, but utilise the narrower carriageway to leave more space on the western side to preserve access to the public toilets.
6. Consider replacements for the wooden fence (on highway land) alongside the cricket club to free up more space along the footpath, making it easier for mobility scooter users and to leave more space when people are waiting at the bus stop.

Left: The current width of Golf Links Road. Reducing to one lane of traffic would provide the opportunity to expand the space available for the public while maintaining access to the Car Park, buses, residents and for loading

Right: Example of a crossing point which is hard to access for people with limited mobility

Barbican Road and Queen Street, Barnstaple - Walking

The Barbican Road and Queen Street Core Walking Zone is along one of the primary traffic corridors into the Town Centre carrying around 20,000 vehicles per day, making it a key barrier to accessing the town centre on foot.

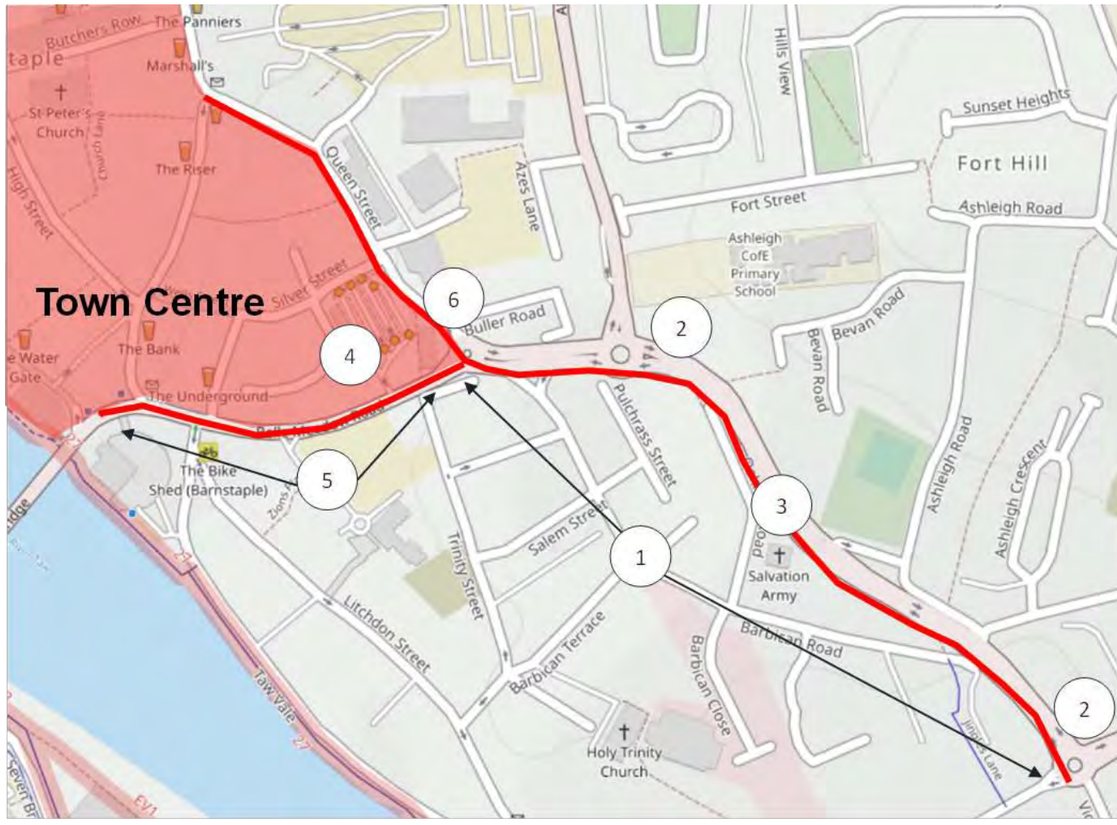
To the east there are three schools in close proximity to Barbican Road, Eden Park Academy, Our Lady's Catholic Primary School and Ashleigh C of E primary school, as well as the large residential areas of Forches and Fort Hill. On the other side of Barbican Road is the town centre, bus station and rail station to the west, making frequent and safe crossing points vital for a comfortable pedestrian experience. As well as school, shopping and leisure journeys, there are high volumes of residents who walk to work on both sides of the road, both to the east of Barbican Road and to the South of Belle Meadow Road, with some residential areas seeing 25% of residents walking to work every day. These improvements will:

- Provide more crossing opportunities over Barbican Road

  Widen footpaths to make travel towards the town centre easier and more accessible
- Provide a more comfortable experience for pedestrians travelling alongside high volumes of traffic

These proposals include:

1. Review traffic flows to determine scope for carriageway space reallocation to enable wider footpaths and reduce the distance needed to cross the road at crossing points. Currently the lanes along Barbican Road are relatively wide, with only one lane heading westbound compared to the two eastbound lanes. Assess the potential to remove one of the eastbound lanes.
2. Install signalised or controlled crossings at the eastern arm of Barbican Road and across Barbican Road at the bottom of Bevan Road.
3. Rearrange the controlled crossing from Ashleigh Road to be straight across without the pedestrian barriers to improve accessibility. May be suitable to deviate route and reuse existing signalised crossing.
4. Relocate existing crossing to Bus Station to ensure there is space available for wheelchair users to navigate.
5. Remove hatching and realign carriageway to enable wider pavements as part of future maintenance.
6. Review junction with Buller Road to make crossing easier and more direct by relocating the dropped kerbs



Below: The current pedestrian crossing towards Barnstaple bus station. There is limited space on the pavement on both sides, making navigation particularly difficult for people with mobility aids or pushchairs

Alexandra Street, Barnstaple - Walking

Like Barbican Road, Alexandra Street is the primary traffic corridor around the town centre, seeing between 15,000 and 20,000 vehicles per day and separating the Derby and Fort Hill areas from Barnstaple Town Centre. As well as having some areas which see a high proportion of residents walking to work, with multiple areas seeing over 20% of residents walking to work, this corridor also acts as a barrier for children travelling to Yeo Valley Primary School, Our Lady's Catholic Primary School and Ashleigh C of E primary school.

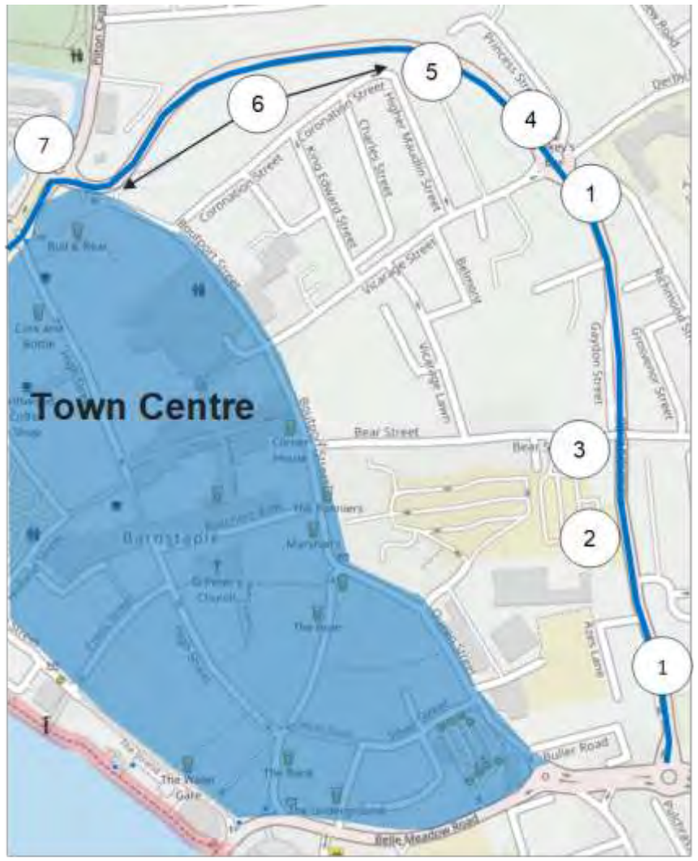
Currently the route has some major junctions leading to the town centre which pedestrians are required to navigate and some notable lengths with no signalled crossing points, as well as some sections where the footpath drastically narrows.

These proposals will:

- Provide prioritised, high quality pedestrian crossing facilities
- Remove staggered pedestrian barriers, improving accessibility for wheelchair and mobility scooter users
- Tighten junctions by reducing corner radii, reducing crossing distance, slowing traffic speeds and reclaiming space for wider footways

The proposals include:

1. Removal and relocation of guard rails, and a realignment of the crossing to be more direct.
2. Review pavement on the western side of the road to allow more space. Currently the slope removes as much as 50% of the available space and creates a narrow space which limits passing and access.
3. Redesign of junction with Bear Street to reclaim carriageway space and improve crossings for pedestrians and cyclists.
4. Remove pedestrian guard rails around the roundabout to enable a wider footpath. Review the crossing and central islands to improve waiting space for people in wheelchairs, with mobility scooters or pushchairs, and investigate potential for a controlled crossing point
5. Install a zebra crossing at the exit of Princess Street and reconfigure the existing barrier/wall to make access to and from the footpath easier.
6. Reclaim some of the carriageway to enable a wider path. As this is the only path along this section of Alexandra Road, it acts as a primary link towards the town centre and South West Coast Path. Relocate signage as to not block the path and manage vegetation to help provide further width.
7. Review pedestrian crossings and routes of all arms of roundabout to improve arrival experience at historic gateway to town centre.



Example: Existing uncontrolled crossing along Alexandra Street. Currently there is limited space for someone with a pushchair to wait

Bideford - Walking

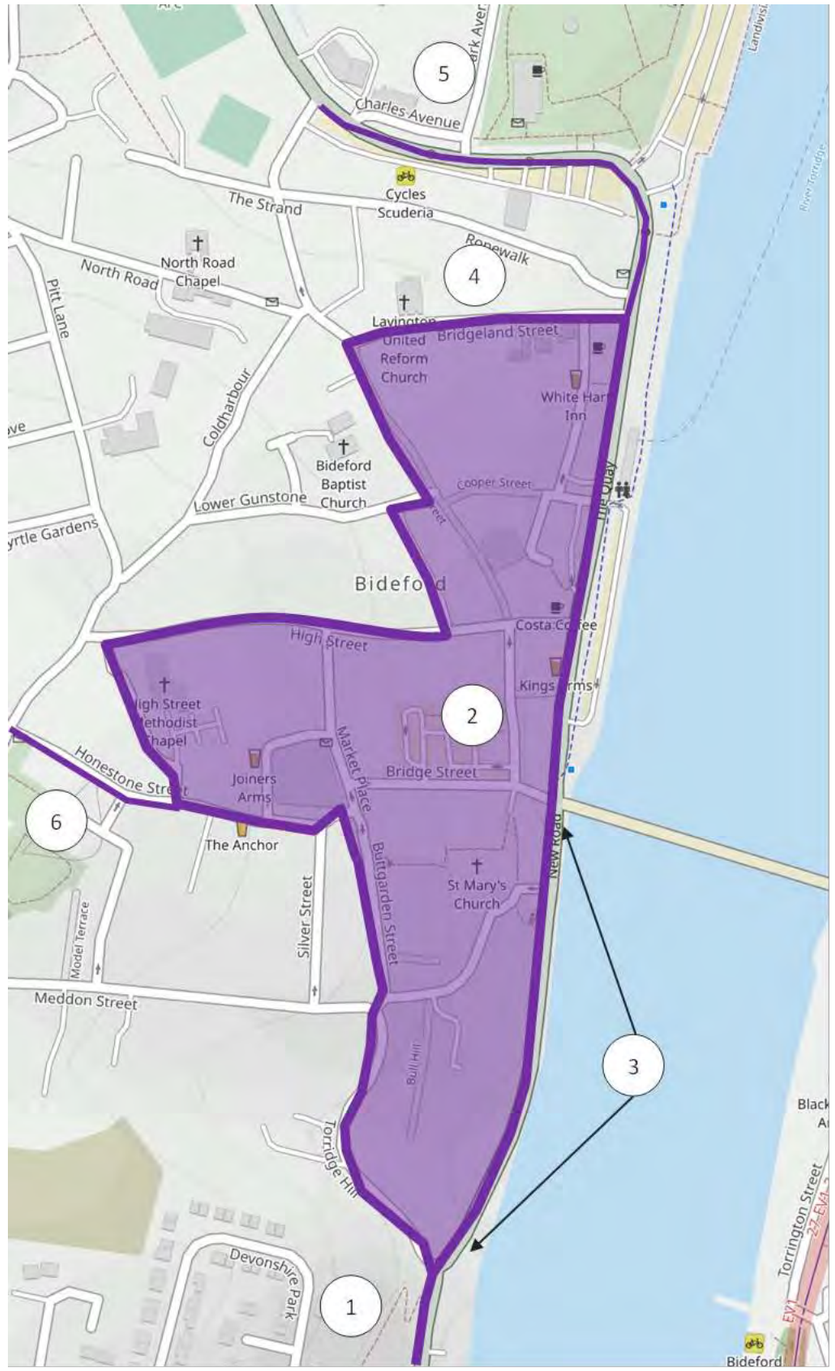
This core walking zone revolves around the town centre of Bideford, providing an important retail and commercial centre. Bideford town centre has the relatively high rates of walking to work compared to the national average, as well as being near to 4 schools and a local hospital. Bideford is also a popular visitor centre, with the quayside area being popular with visitors to the town and the South West Coast Path.

These proposals will:

- Improve access to the town centre along the main routes by widening footpaths and improving crossings
- Review loading and parking within the town centre to maintain access to businesses and for residents while opening up more space for pedestrians
- Ensure safe and accessible crossing points

These proposals include:

1. Provide wider footpath towards Ford Rise and Ford Woodland Trail past Longbridge Wharf.
2. A town centre wide review of parking and loading for businesses to determine scope to widen footpaths and improve the pedestrian realm while maintaining access to businesses and residents.
3. Investigate scope to improve the public realm along the river and improve the crossing experience at the Longbridge.
4. Consider making Bridgeland Street one-way to enable a reallocation of carriageway width to provide more space for footways and pedestrians while maintaining loading and access to businesses.
5. Review of crossing points to improve access between Victoria Park and Morrisons towards the town centre, including the potential for a zebra crossing and widening of the central island.
6. Investigate the potential to reprofile the junction of Abbotsham Road, High Street, Old Town and Honestone Street to provide a safer and easier crossing from the town centre towards Bideford College and the Community Hospital.



5. Complementary Schemes

E-mobility

Across the country, many towns and cities have been trialling and implementing active travel hire schemes to help encourage modal shift. Most of these schemes revolve around an on-street bike or e-scooter hire platform, allowing users to start and end their rental using an app. While on-street bike hire has been tried and tested for over a decade in the UK, the DfT only permitted trials of rental e-scooters in recent years within England. As of February 2022 there were 31 live trials across England, with the trial period being extended until May 2024.

Case Study: Co Bikes, Exeter

Co Bikes is an on-street E-bike hire provider, established as part of the DfT Shared Electric Bike Program in 2016. Bikes are rented through the Nextbike app from docks across the city, with rentals charged for the time the bike is used for.

The scheme started with 20 bikes at docking stations across the city, with usage gradually increasing for the first years of operation. However, since the start of the Covid-19 pandemic, usage figures across the city saw unprecedented growth with usage figures increasing substantially throughout 2020.

The co-bikes model in Exeter partly depends on the presence of a complimentary Co Ccars service providing car clubs to local residents. The Council is responsible for upfront costs including civils works, electrical connection, and the equipment. Ongoing operating costs are then covered by user charges for renting the e-bikes.

As well as docks which provide a way to charge the bikes while they are not being used, Co Bikes and Devon County Council have worked together to roll out ‘dockless’ stations. These consist of a cycle parking stand and still allow users to start or end a rental session, but without the need for an electrical connection, allowing a faster rollout of the network and the ability to trial new locations before the potentially costly connection to the power grid.

In 2021, Devon County Council successfully secured funding from the E-Cycle Extension Fund. One element of this programme was to support the expansion of Co Bikes dockless sites around Exeter. These virtual docks have been rolled out to targeted locations, such as near education sites, employment location, or areas with high levels of deprivation to assess uptake and raise awareness. They have also been targeted in areas with lower levels of physical activity and where there is the highest potential for modal shift from short car journeys to cycles.

Alternative, and lower cost, approaches to a e-bike hire scheme could also be explored. For example, providing loan e-bikes to local businesses, or offering e-bike taster sessions and events to encourage people to try an e-bike for the first time.

Cycle Parking

While investigating potential locations for cycle infrastructure is beyond the scope of this report, ensuring safe and convenient cycle parking at key origins and destinations around the study area is vital to support the uptake of cycling along existing and proposed routes. LTN 1/20 sets out the important considerations when considering which parking and security measures are most suitable for different journey types and durations.

Cycle parking should be considered during the design stages of future schemes and as part of new developments. There are also opportunities to engage with local businesses to ensure cycle parking can play an integral part of workplace travel plans to support cycling among employees, visitors and customers.

School Streets

School Streets are roads which temporarily restrict motorised traffic twice a day, every day, during school travel times during term time. Bollards are placed into sockets across the road by school operatives to restrict traffic. School Streets maintain access for residents, emergency service vehicles and blude badge holders by temporarily removing the barrier, creating a low traffic environment while maintaining essential access. The schemes are school and community led, with support to get the scheme fully operational provided in the form of training, equipment, and implementation of the Traffic Regulation Order prohibiting traffic.

The aim is to replace the potentially congested environment outside of schools during drop off and collection with a pedestrian orientated environment, providing families and children a safer space to travel to school and socialise around. It also aims to increase the likelihood that children will walk, cycle or scoot to school instead of by car, improve the air quality outside of the school.

School Streets have already been set up outside schools elsewhere in Devon, with feedback from 287 respondents across he first three schemes implemented showing 86% support for the measures to be made permanent. The same questionnaire suggested a 20% reduction in car use for school journeys and an 18% increase in the use of active travel modes[xi]

Figure 5-1 - Example of a School Streets scheme in Exeter

Wayfinding

During the site visits across the study area and the stakeholder engagement events in Barnstaple and Bideford have particularly, the need for clear signage along existing routes to help with wayfinding to key destinations was highlighted. For the existing urban cycle & walking routes and the proposed routes set out within this LCWIP, developing a consistent approach to wayfinding using signage, mapping and clear road markings would help make the current and future network more legible for both residents and visitors.

Information and signage along the Tarka Trail is clear and cohesive for the most part, however some of the signs and trail maps are dated or hard to read due to weathering.

Case Study: Wayfinding, Littlehampton

Littlehampton in West Sussex has deployed high quality mapping and signage to highlight pedestrian areas of the seaside town and reconnect the town centre to the seafront. Themed on a day out by the seaside, the graphic style is bright and lively. The mapping highlights landmarks and attractions and key pedestrian routes to connect the public realm. The project builds on the approach of Legible Bristol, Bath, and similar wayfinding schemes in London, which use high quality on-street signage, paper mapping, public art, and associated projects. A similar project in the Heart of Teignbridge could help both locals and visitors navigate the area and enhance the public realm.

Case Study: Cycleways signage guidance, tfl

As part of the design principles for the Cycleways network in London, TfL set out their own clear guidance on how to best signpost and mark cycle routes[xii]. These guidelines primarily follow the markings as set out in the Traffic Signs Manual – Chapter 3, making many of the suggestions applicable to the study area.

The Cycleways in London make use of on-carriageway markings to clearly communicate the alignment of routes and provide additional route confirmation. The routes are numbered, with on-road bike markings, the route number and any directional information being used alongside the use of traditional signs. These can be particularly useful when longer sections of routes are along quieter roads winding through residential areas, especially where parked cars may obstruct the visibility of signs along the kerb line.

Pedestrian and cycle barriers

While providing new cycle and pedestrian routes accessible to all users is a priority, reviewing the existing the existing routes to ensure all users can make use of them is also vital in supporting the transition to active travel. While it is important to maintain provisions to restrict access to motorised vehicles and to manage cycle speeds, especially when paths are joining onto carriageways, measures should also be positioned to preserve access to all cycle users.

Throughout the site visits undertaken in early 2022 to assess the existing routes and determine the scope for proposed improvements, a number of barriers along existing routes were observed, as seen in Figure 5-2. These examples are potentially a barrier to mobility scooters, adapted cycles, cargo bikes, bikes fitted with trailers or tagalongs, and users with limited mobility who otherwise may struggle to repeatedly mount and dismount their cycles.

It's recommended that an ongoing exercise of reviewing and replacing such barriers is undertaken to address and accessibility concerns.

Figure 5-2 - Examples of barriers which could limit access to cycle users

6. Prioritisation and Costs

The next stage of the LCWIP process is to prioritise cycling and walking infrastructure improvements and provide high level costing of schemes. The guidance states that priority should be given to improvements that are most likely to have the greatest impact on increasing the number of people who choose to walk and cycle, and therefore the greatest return on investment.

Other factors may also influence the prioritisation of improvements such as the deliverability of the proposed works, whether an alternative route exists nearby for users to follow, and how the links serve key journey types such as travel to school, work and for leisure.

While the individual proposals were scored against the above criteria for prioritisation, an average score across the entire section was used due to the benefits of delivering a complete and coherent cycle route. As such these are general indicative priorities for the sections as a whole. Key stand-alone proposals might be in a position to be progressed sooner and independently. It is also important to note that whilst priorities have been assigned to routes there is a need for flexibility depending on which opportunities and demands are presented in the future. This includes specific funding opportunities better suited for some types of schemes, or the potential proposals as part of housing or commercial development.

Indicative scheme cost estimates for each section have been developed based on unit and per metre costs. It should be noted that the schemes are at a very early stage of development and these costs will change as the scheme designs are developed further. Key costing assumptions include:

- Cost for schemes delivered purely as part of new development have not been included;
- Costs for new bridges have not been included. Further work would be needed to confirm design principles and confirm site conditions;
- Similarly, costs of reviews have not been calculated, as the extent of any improvements is not known at this stage until further development and community engagement has been undertaken;
- Costs are presented as 2022 prices and will need to be adjusted for inflation once the delivery timescales are confirmed;
- Cost includes for preliminaries, preparation and supervision costs;

As part of creating a cohesive, comfortable and safe cycle network across the area, existing cycle and pedestrian routes will also require regular maintenance. This includes reviews to bring routes bot identified within the LCWIP up to modern standards. As such, reviews of existing routes should be undertaken to identify opportunities to improve them, including as part of planned maintenance.

Table 6-1 – Scheme Priority and Cost

Priority	Route	Indicative Cost
High	Larkbear Pedestrian and cyclist Bridge	Costed separately
High	Bideford to Westward Ho! cycle route (Kenwith Valley)	Costed separately
High	Crossings of North Devon Link Road	Costed separately
High	Abbotsham Road footway towards Abbotsham	Costed separately
1	Roundswell to Pilton: Section B	£9.0m*
2	Appledore to Bideford: Section B	£3.8m
3	Alexandra Street core walking zone	£3.5m
4	Barbican Road and Queen Street core walking zone	£1.7m
5	Roundswell to Pilton: Section A	£5m
6	Whiddon Valley to Barnstaple: Section B	£1.5m
6	Whiddon Valley to Barnstaple: Section C	£2.9m
8	Yelland to Barnstaple: Section B	£7.3m
9	Landkey to Barnstaple: Section B	£1.1m
10	West Bideford to East-the-Water: Section A	£2.8m
10	Landkey to Barnstaple: Section A	£2.4m
12	Appledore to Bideford: Section A	£4.3m
13	Bideford core walking zone	£3.3m
14	West Bideford to East-the-Water: Section B	£7.5m
15	Yelland to Barnstaple: Section C	£3.2m
16	Whiddon Valley to Barnstaple: Section A	£3.3m
17	Roundswell to Pilton: Section C	£2.9m
18	Yelland to Barnstaple: Section A	£7.4m
19	Westward-Ho! core walking zone	£5.1m

*Does not include improvements to the Longbridge

Other priority schemes not audited and assessed as part of the LCWIP process.

The schemes outlined in this document represent over £78m of investment in over 45 miles of high-quality cycling routes, walking improvements, and public realm schemes. Combined with existing proposals that are also currently in development, it would require a level of active travel spending up towards levels seen in leading countries such as the Netherlands, and leading cities in the UK. There is clearly a significant potential ready to unlock across this study area, discussed in detail in Chapter 2. Investment would be building on the successes of the Tarka Trail and would include some ‘quick-win’ elements.

This represents a step-change in active travel funding across Barnstaple, Bideford and Northam, and will be highly dependent on successful funding bids to central government. There are a number of factors which strengthen the likelihood of increased central government funding for active travel in the study area, including:

- Increased overall funding for active travel, with £2bn for cycling funding announced and further spending announcements likely over the lifetime of this LCWIP.
- Recognition of the need for increased funding and regeneration outside London and core cities to “level up” the country, especially to regenerate town centres and seaside towns.
- The need for a green recovery from the Coronavirus crisis and the need to tackle the climate crisis.

Whilst a value for money appraisal has not been undertaken at this stage, benefits in terms of public health, the local economy and tourism, land value uplift, decongestion, road safety and carbon savings are likely to be significant. Most walking and cycling schemes represent very good value for money, providing significantly more benefit to society than the cost of the scheme.

The role of supporting infrastructure and measures, such as cycle parking, active travel information and mapping, and marketing will also need to be considered. These supporting measures are currently delivered by Travel Devon and the “Capability Fund”, however, ongoing funding from central government is likely to be needed to continue with these activities.

7. Next Steps

Integration and Application

The final stage of the LCWIP process considers how the LCWIP should be integrated into local policy, strategies and plans, as well as practical applications of the outputs of the LCWIPs.

North Devon District Council and Torridge District Council are currently reviewing the Local Plan for the combined areas, with Devon County Council reviewing other major local transport and net zero policy documents.

Due to the nature of local authority funding, most funding is likely to come from bids to central government. Future funding streams therefore currently remain unclear and it would be inappropriate to commit to exact delivery timescales. There will be a need to adopt a flexible approach, adapting to changing circumstances and opportunities. For example, certain private sector development sites with associated cycling and walking contributions may come forward sooner, or later, than anticipated, and scheme priorities may change to reflect this. There may also be opportunities to incorporate cycling and walking improvements as part of other transport schemes.

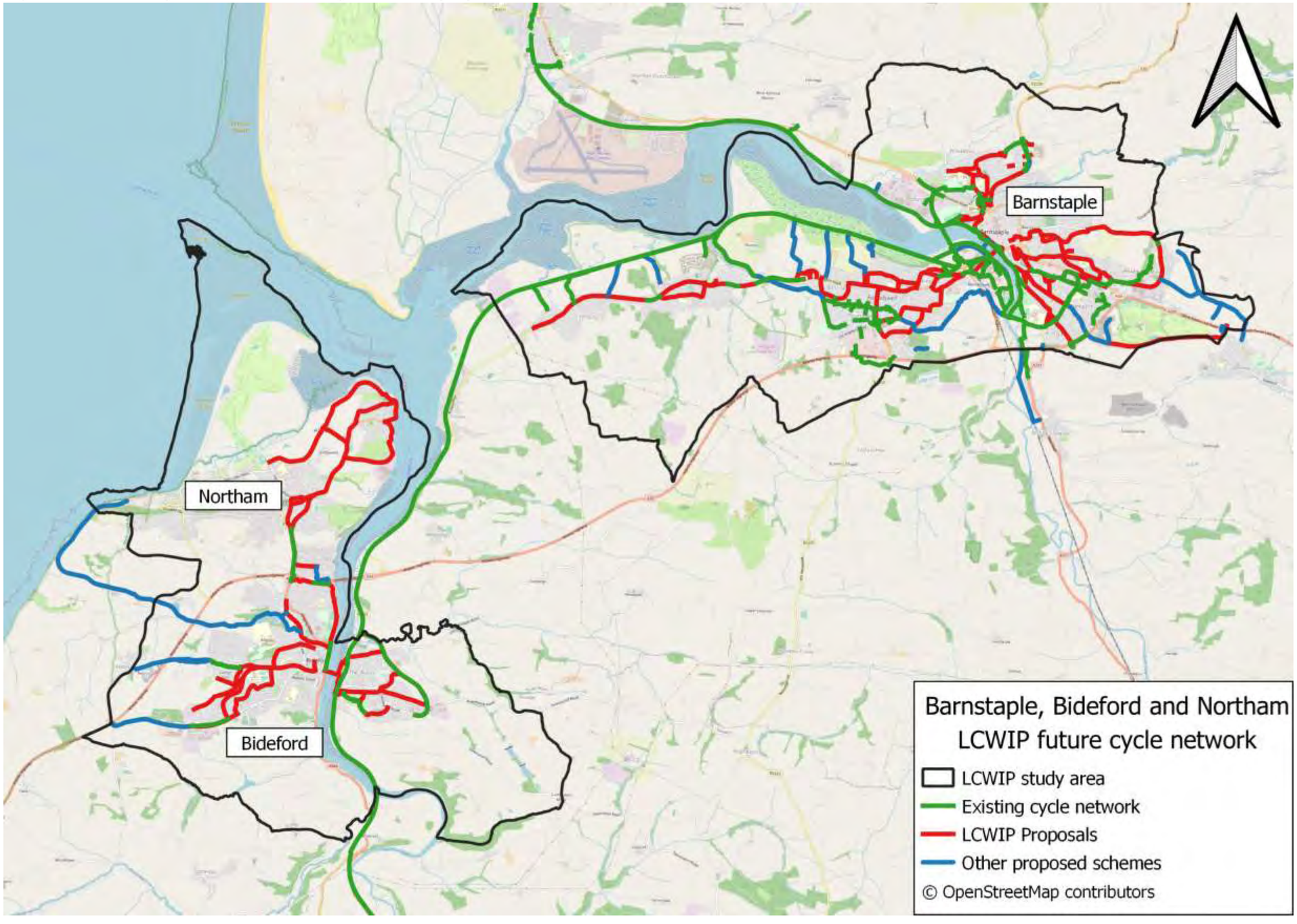
Along with funding from central government, there is also the opportunity for local funding contributions from developer contributions. This would help to deliver routes to new population areas in the region as and when they are constructed and support sustainable travel patterns. However, it is also important to consider the existing population and those routes which do not tie in as directly with Local Plan allocations.

We understand that the newly formed Active Travel England will operate in a similar way to how Ofsted operates for schools when considering active travel proposals, and will assess local authorities' performance on active travel, with findings influencing both current and future funding decisions. This LCWIP, as well as the others being produced across Devon, are a good step in presenting the ambition that Devon County Council has to deliver high quality active travel infrastructure, compliant with the latest design standards.

Reviewing and Updating

It is envisaged that delivery of the LCWIP will need to be continuously monitored as a live document, and will be reviewed and updated approximately every four to five years to reflect progress made with implementation.

Figure 7-1 - Future cycle network including the LCWIP proposals



Appendix A

Census Commute Data

The following figures show the number of commuters travelling to each of the 2011 Census Middle Layer Super Output Area (MSOA) centroids within the study area. The data was obtained by DataShine and shows commute data from the 2011 Census, covering all modes of travel.

The thicker lines indicate a higher volume of commuters arriving by all modes towards the indicated LSOA.

Figure A-1 to Figure A-6 show these commuter volumes for the North Devon MSOA centroids within the study area in numerical order, while Figure A-7 to Figure A-10 show the commuter flows for the study area centroids within Torridge.

Figure A-1 - All commuters travelling to North Devon 007

Figure A-2 - All commuters travelling to North Devon 008

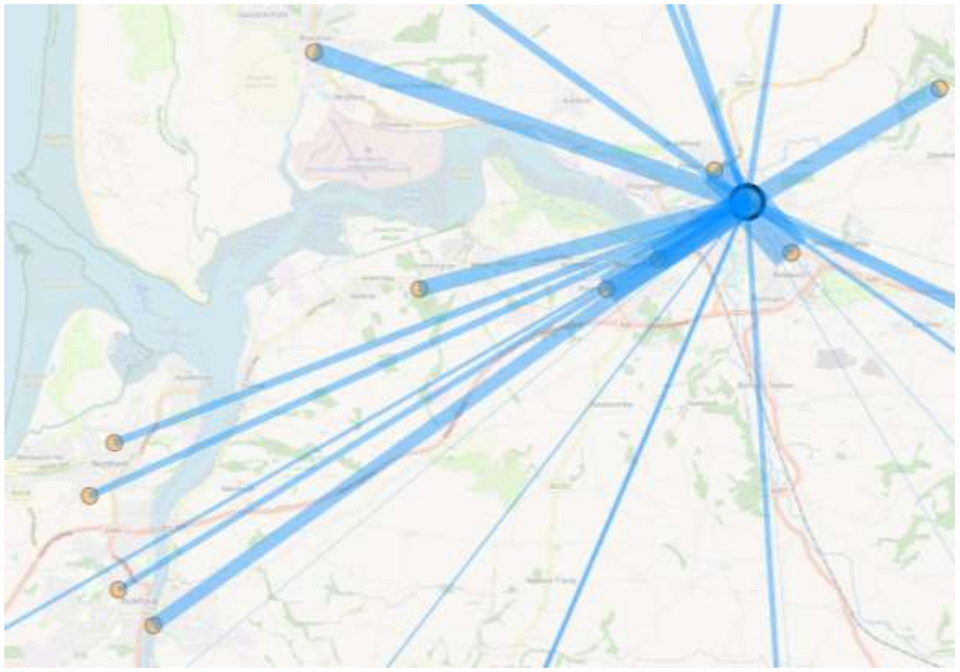


Figure A-3 - All commuters travelling to North Devon 009

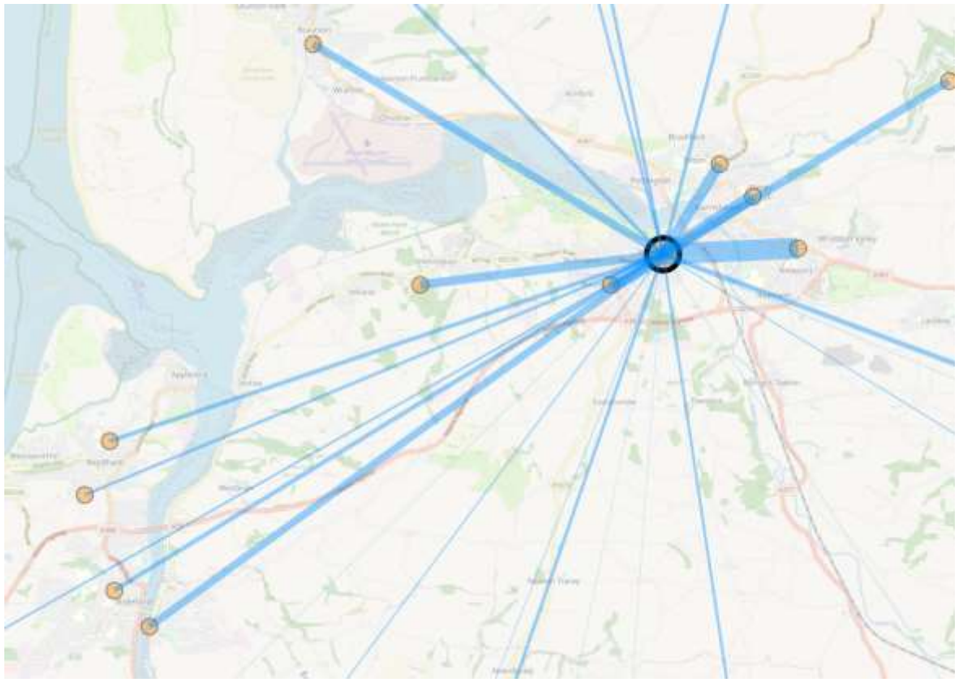


Figure A-4 - All commuters travelling to North Devon 010

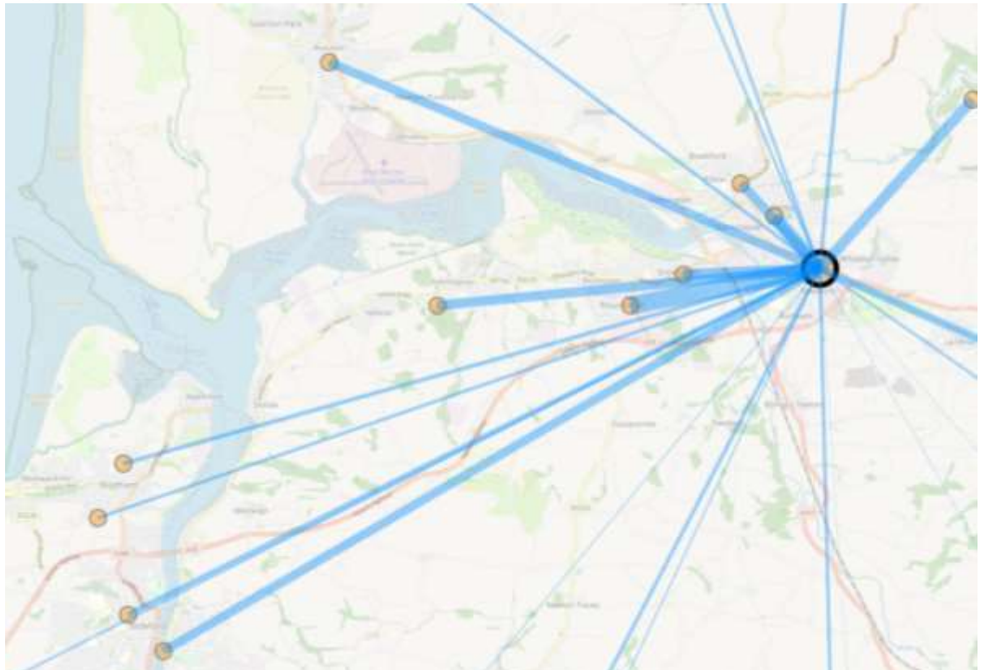


Figure A-5 - All commuters travelling to North Devon 011

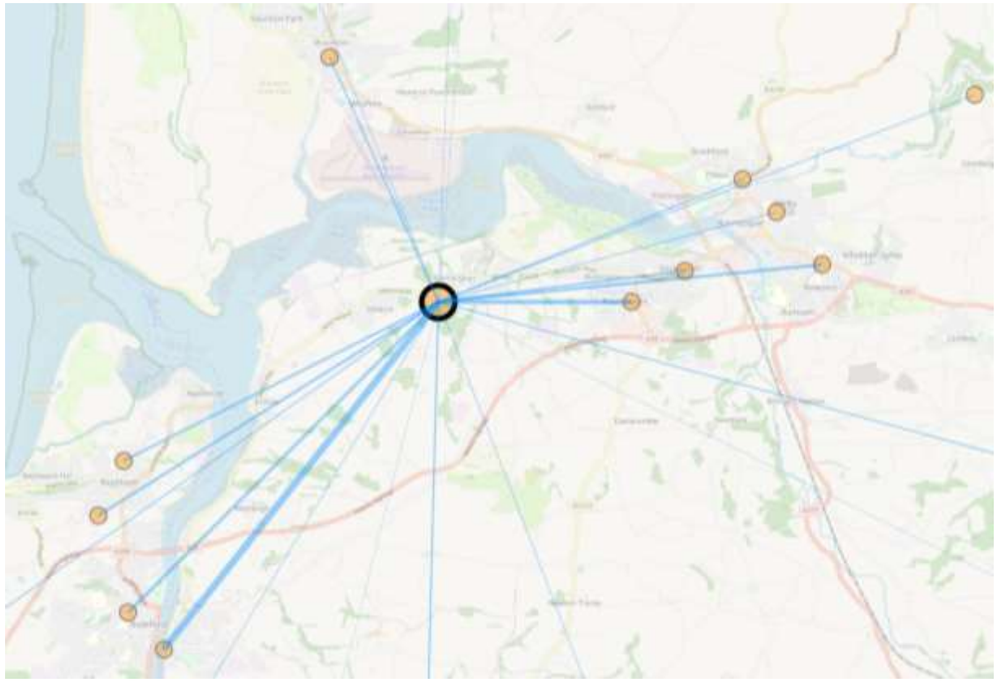


Figure A-6 - All commuters travelling to North Devon 012

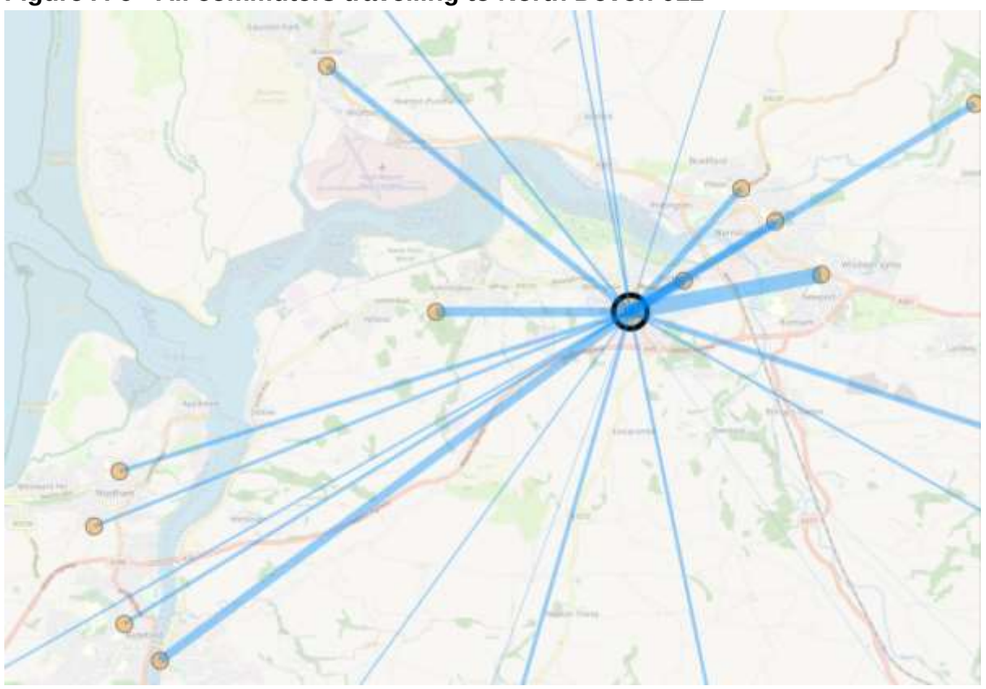


Figure A-7 - All commuters travelling to Torridge 001

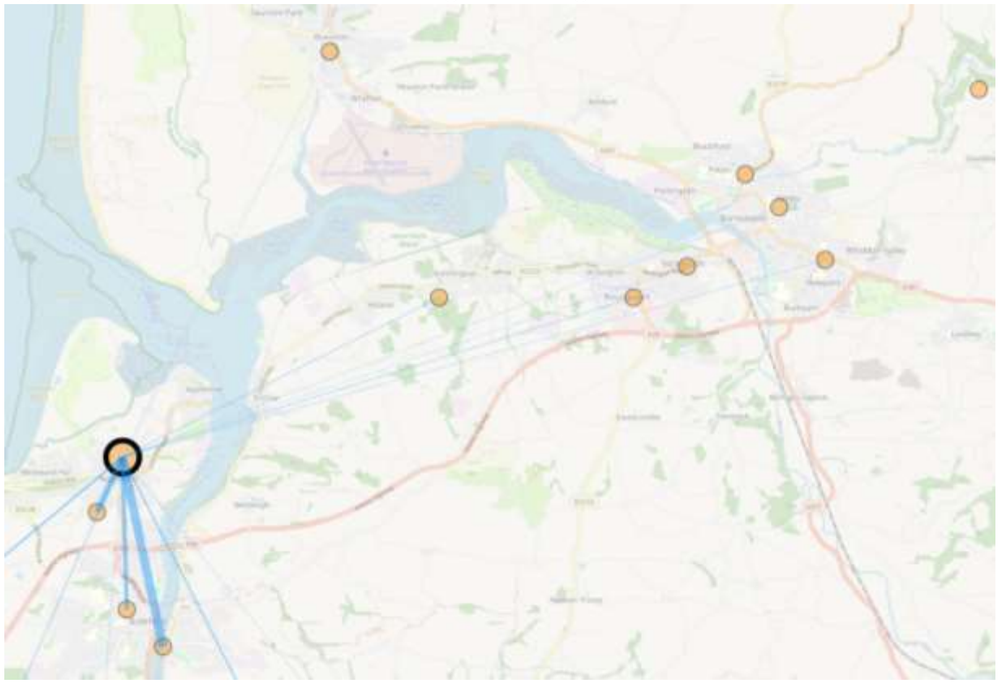


Figure A-8 - All commuters travelling to Torridge 002

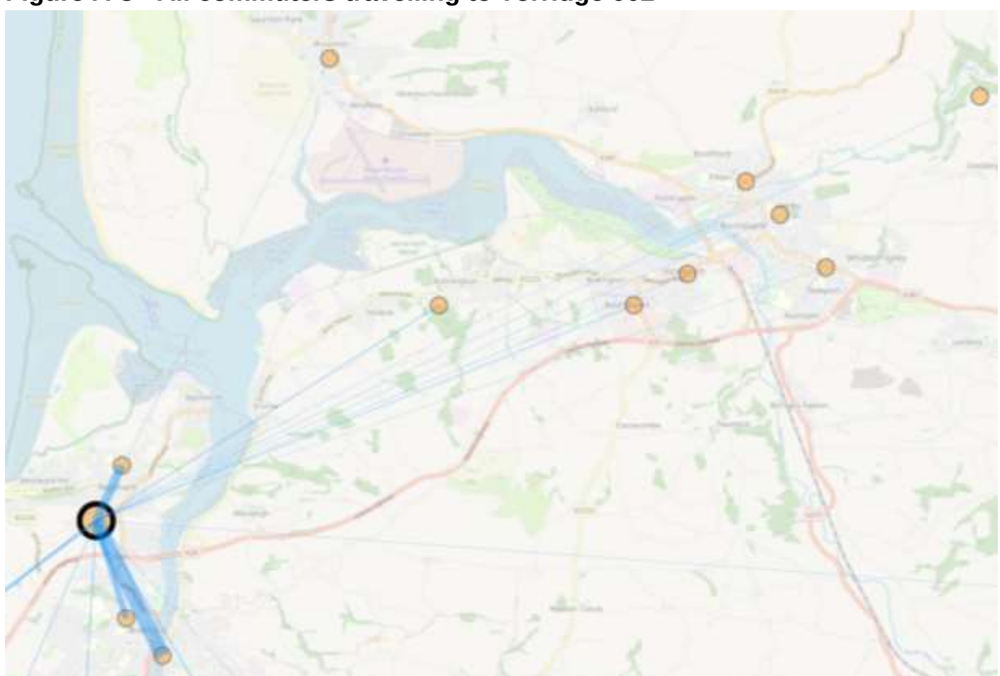


Figure A-9 - All commuters travelling to Torridge 003

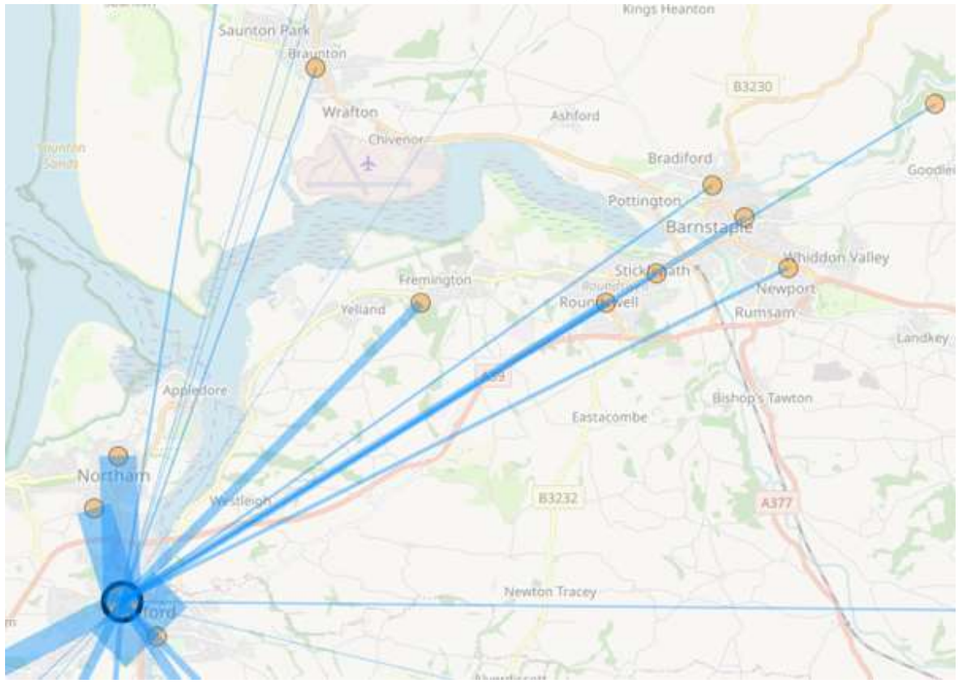
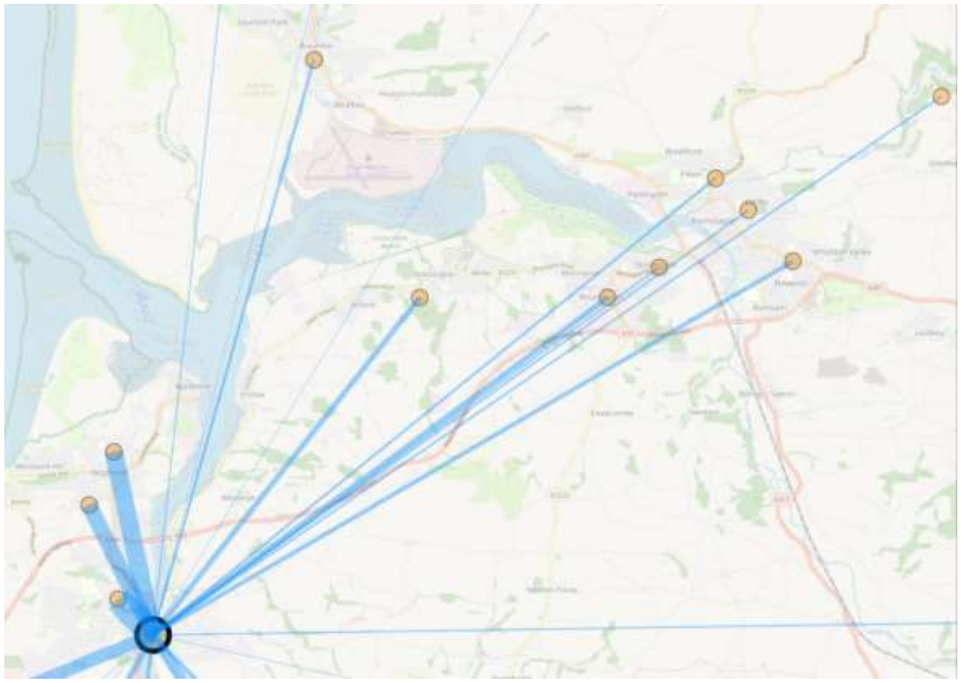


Figure A-10 - All commuters travelling to Torridge 004



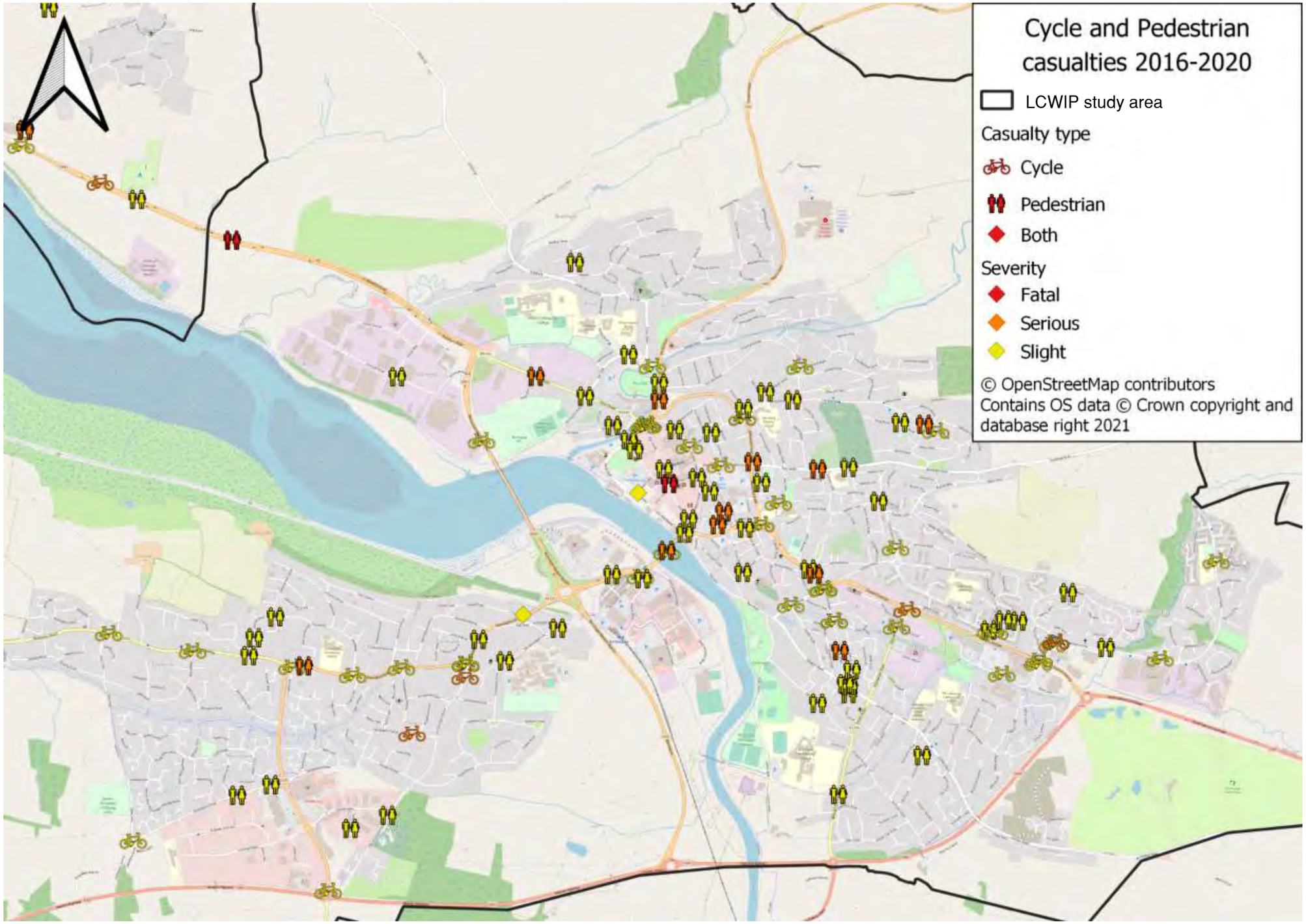
Appendix B

Collision Data

Appendix B.1

Barnstaple Collision Map

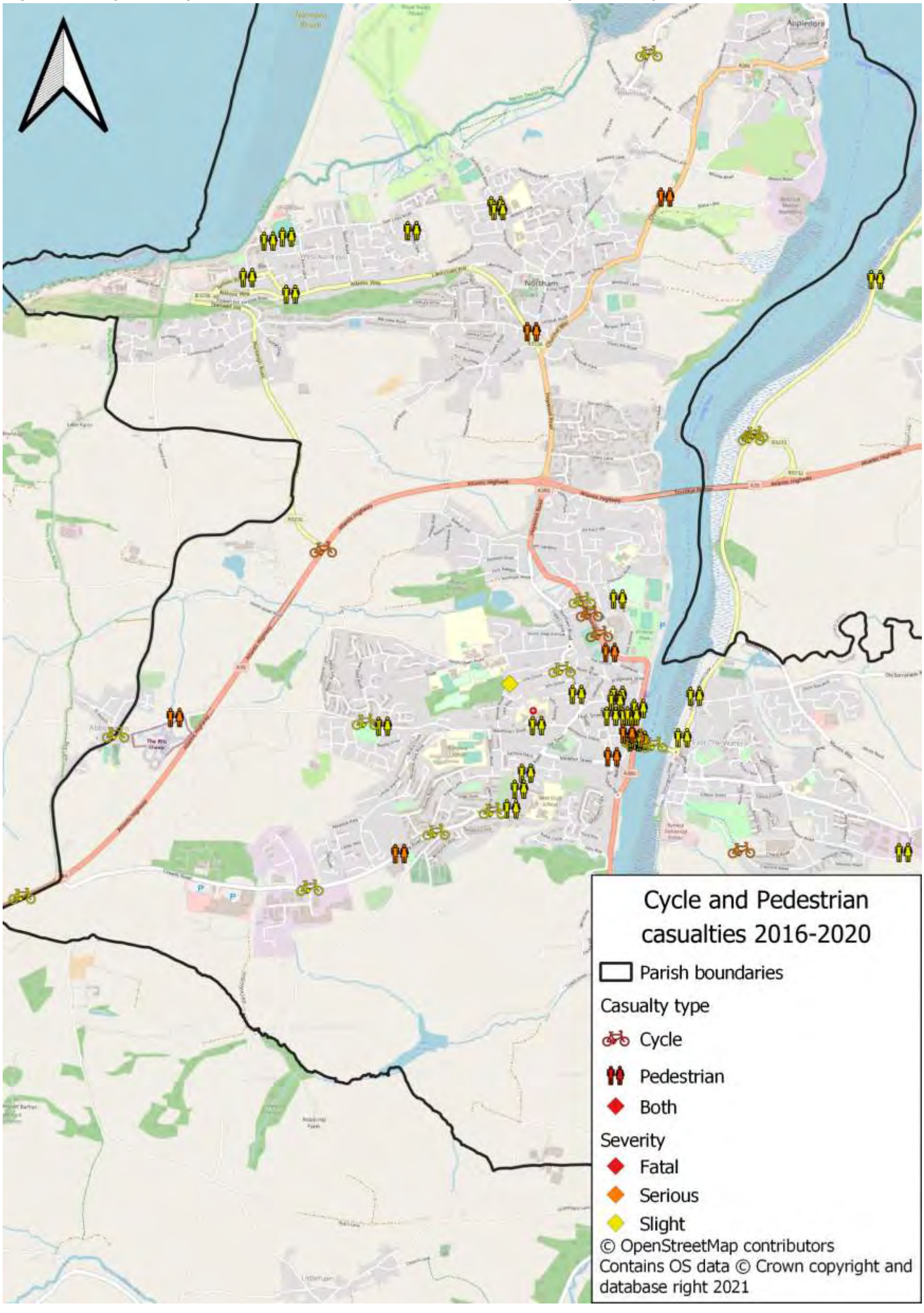
Figure B-1 - Cycle and pedestrian casulaties in Barnstaple (2016-2020)



Appendix B.2

Bideford Collision Map

Figure B-2 - Cycle and pedestrian casualties in Bideford and Northam (2016-2020)



Appendix C

Desire Line Identification and Prioritisation

Appendix C.1

Barnstaple Desire Lines

Figure C-1 - Initial desire lines for Barnstaple

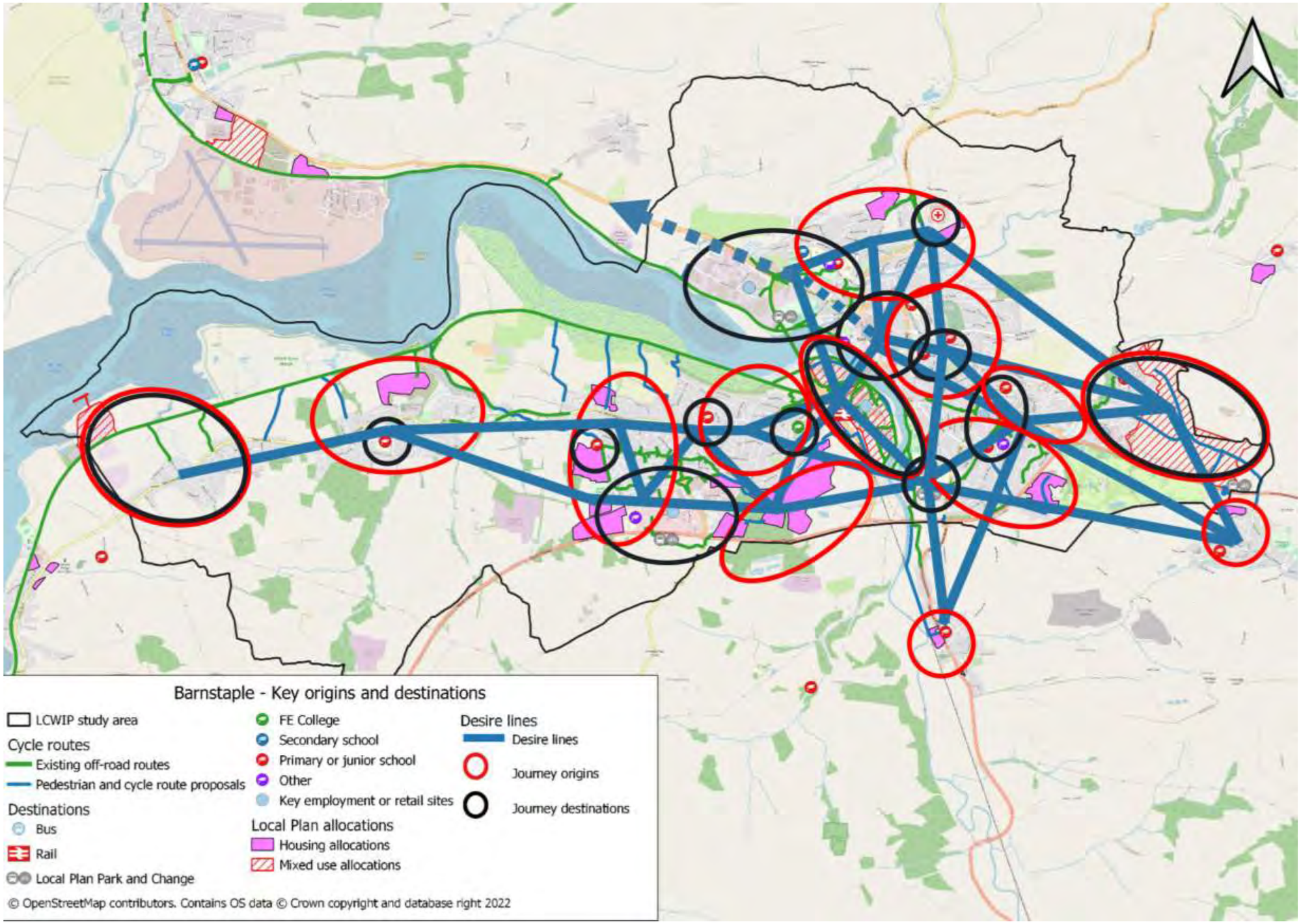
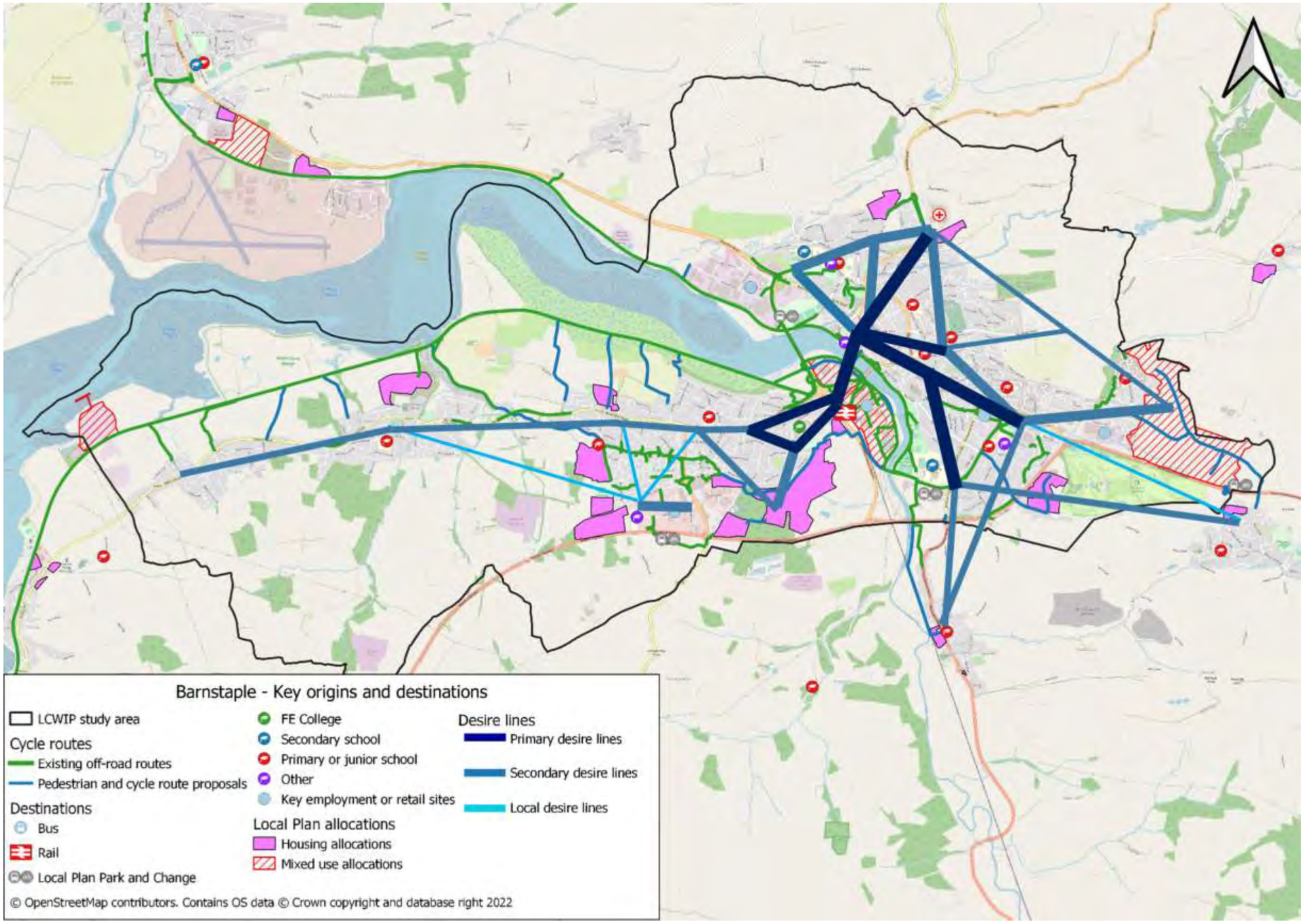


Figure C-2 - Prioritised desire lines for Barnstaple



Appendix C.2

Bideford Desire Lines

Figure C-3 - Initial desire lines for Bideford

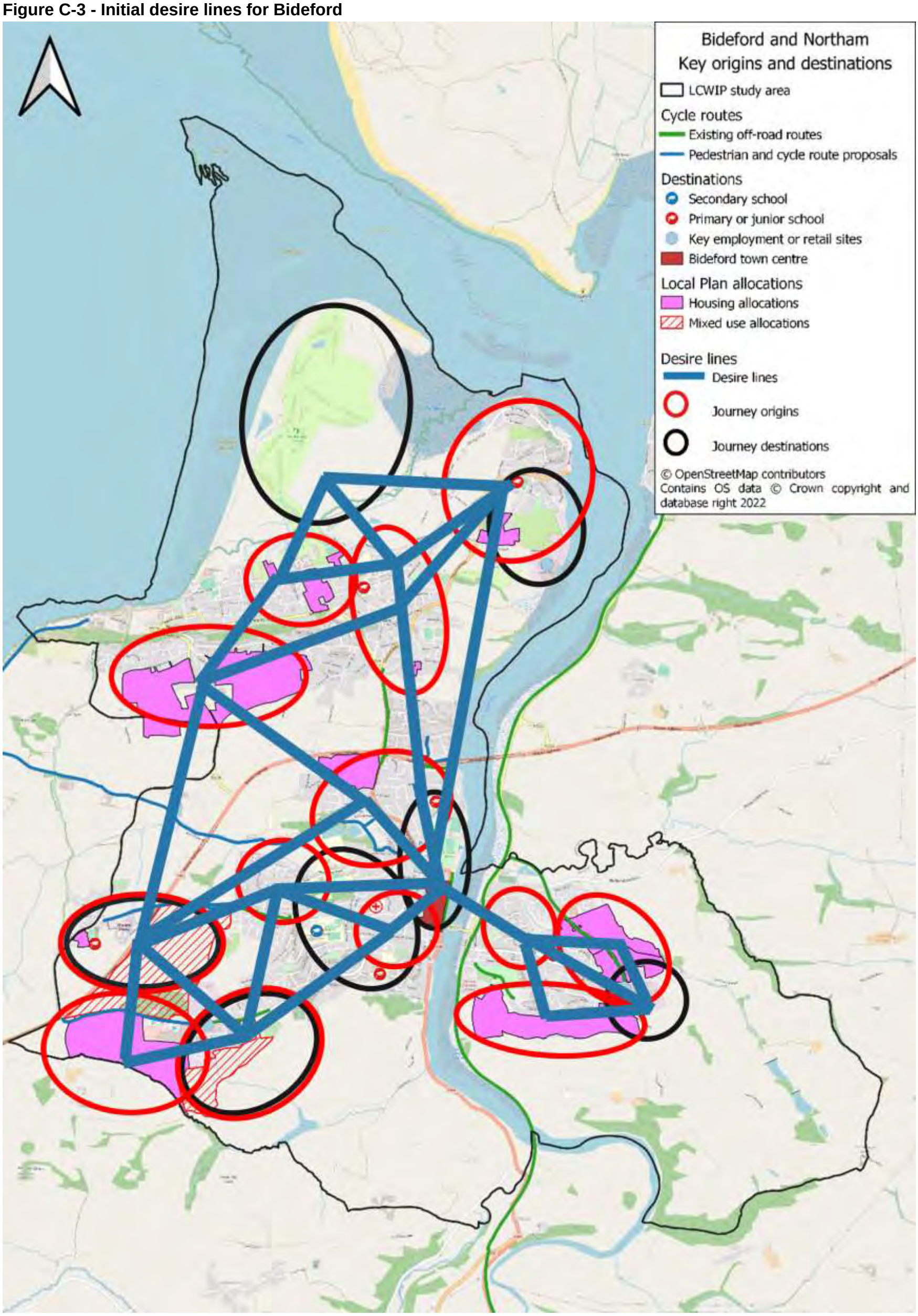
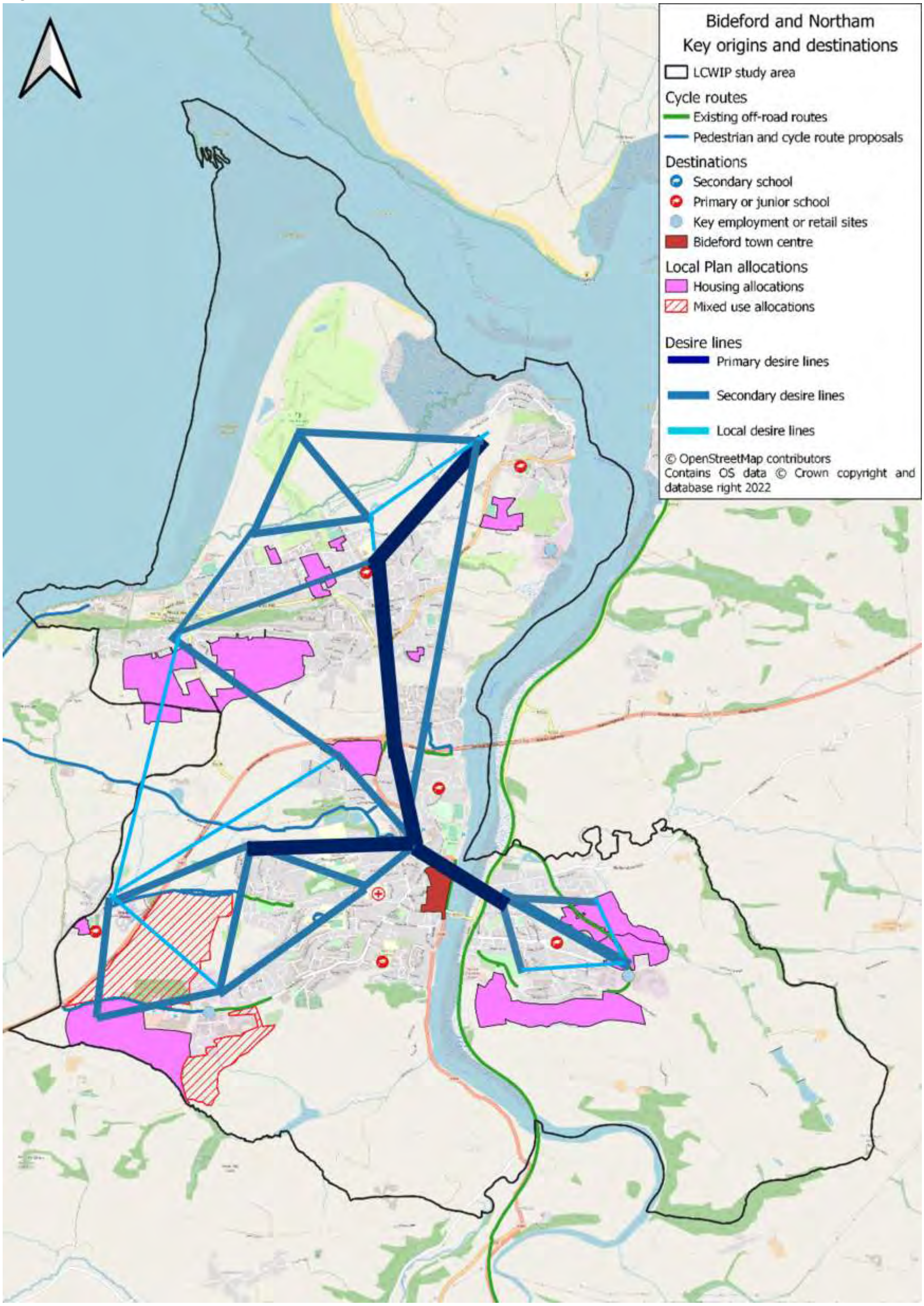


Figure C-4 - Prioritised desire lines for Bideford



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[i] https://democracy.torridge.gov.uk/documents/s10140/Northern%20Devon%20Tourism%20Strategy%20FINAL.pdf
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[iv] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509587/value-of-cycling.pdf
[v] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509587/value-of-cycling.pdf
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