





Devon County Council & Teignbridge District Council

HEART OF TEIGNBRIDGE LCWIP

Local Cycling and Walking Infrastructure Plan *Final version*











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Local Cycling and Walking Infrastructure Plan Final version

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CONTENTS

1 INTRODUCTION	1	
2 GATHERING INFORMATION	3	
3 NETWORK PLANNING FOR CYCLING	9	
4 NETWORK PLANNING FOR WALKING	38	
5 COMPLEMENTARY SCHEMES	45	
6 PRIORITISATION AND COSTS	46	
7 NEXT STEPS	49	
APPENDIX A: OTHER SCHEMES CONSIDERED	50	
APPENDIX B: KEY COST ASSUMPTIONS	53	



1 INTRODUCTION

BACKGROUND

The Heart of Teignbridge is the collective name for Newton Abbot, Kingsteignton and Kingskerswell and immediate surrounding area. Collectively it forms the largest market town area in Devon and has an overall population of 42,000 people. Newton Abbot is a historic market town, with a heritage built around the railway, its markets, mills, ball clay production, the Stover Canal, and the racecourse. The area is strategically located between Torbay and Exeter, and within easy reach of both Dartmoor and the coast.

These strengths make the area an attractive place to live, and it has the greatest level of affordable housing need in Teignbridge. In 2019 Newton Abbot and Kingsteignton became a designated Garden Community, with Government funding provided to revitalise the area and shape significant developments and facilities for local communities. This includes providing the funding for the creation of this LCWIP document. The Garden Communities programme provides an opportunity to imagine 'what could be' and to turn this vision into a reality. Central to the programme is incorporating the views, goals, and aspirations of the local community, technical experts, and political partners.

The proposed level of growth in the Heart of Teignbridge needed to deliver central government housing targets will be transformational, bringing in more job opportunities, cultural facilities, social and community infrastructure. However, this growth will add pressure to the area's transport network, and as such there is a need to substantially increase the number of people cycling and walking, combined with wider improvements to transport infrastructure.

One of the main issues the area faces on a daily basis is traffic congestion. This was identified as the biggest issue facing Newton Abbot by the community in the Neighbourhood Development Plan. As with other similar areas, the Heart of Teighbridge also faces challenges including health and income deprivation, an ageing population, and responding to the climate crisis.

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 improve safety for walking and cycling, and enhance 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 form 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 Heart of Teignbridge this process and the resulting outputs will represent an evidence-based approach to focus future investment over the next 10-20 years 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 plans, 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 focuses on a core area encompassing the growth areas to the west and south of Newton Abbot, as well as the main urban areas of Newton Abbot, Kingsteignton, and Kingskerswell (see Figure 1.1). This study area was chosen due to high levels of proposed growth and high propensity for increased cycling and walking. A high-level review of onward connections to the wider area, beyond the Heart of Teignbridge is also considered, reflecting previous work on some of these key routes.

GOVERNANCE & ENGAGEMENT

The project forms part of a wider programme to deliver growth and supporting infrastructure in the area, with a client group comprising of Devon County Council and Teignbridge District Council.

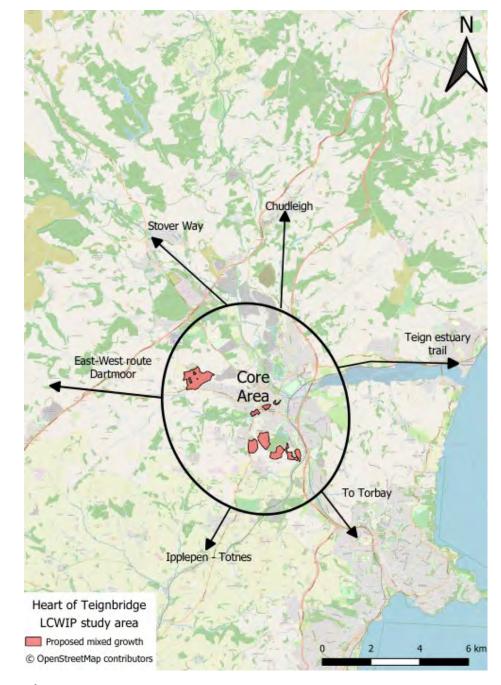


Figure 1.1 Geographical extent

This document has 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;
- Delivery partners, including the Local Enterprise
 Partnership, Homes England, Highways England; and
- Town and Parish Councils.

This document considers cycling and walking route development that would normally be included in an LCWIP, and wider supporting measures including e-bikes, Park & Change, best practice for new development, and other related measures.





2 GATHERING INFORMATION

THE CASE FOR WALKING AND CYCLING

The Department for Transport's (DfT) Gear Change and Cycling and Walking Investment Strategy (CWIS) 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. 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. £1 billion is expected to be spent on building 250 miles of new, high-quality cycle routes and safe junctions in towns and cities across England. 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 the Heart of Teignbridge there are clear opportunities to better connect people and places with targeted investment in new and improved active travel infrastructure. Both Devon County Council and Teignbridge District Council share the CWIS ambition to provide more direct, convenient, safe, and attractive options for local journeys.

Responding to the climate crisis

Both Devon County Council and Teignbridge District Council 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 Countyi.** 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 ways to tackle transport emissions.

Supporting health, wellbeing, and access for all

Active travel can play a crucial role in supporting public health and wellbeing. A lack of physical activity is the cause of one in six deaths in the UK and costs the country an estimated

£7.4bn per year. iii Improving active travel networks can decrease these levels and make cycling and walking a common form of exercise for more people.

In addition, air pollution causes an estimated 28,000 to 36,000 deaths a year attributed to long-term exposure to air pollutions, as well an increased risk of chronic health conditions in Levinor as well an increased risk of chronic health conditions in Levinor Abbot and Kingsteignton (a designated Air Quality Management Area), 4 locations exceeded National Objectives and 26 locations got worse in terms of NOx data.

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.

Improving accessibility and social sustainability

In some parts of the Heart of Teignbridge (e.g., College Ward), over a quarter of households do not have access to a car (Census 2011 data). Parts of Buckland and Broadlands in Newton Abbot are amongst the 10% most deprived in the country^{vi}. It is important that all residents can access employment and education opportunities, key services, and facilities. Delivering improved active travel connections between key destinations will be important in this regard.

Enabling people to cycle and walk increases the level of social interaction on streets and in neighbourhoods. This has been shown to have a positive impact on issues such as loneliness and builds improved levels of trust in communities.

Accommodating growth

There is a national shortage of housing, and the Heart of Teignbridge has the greatest level of affordable housing need in the district. The Local Plan states that (in 2013) only 9% of dwellings in the district were forms of affordable housing. The proposed level of growth in the area will be transformational, with approximately 5,000 new homes plus new employment space proposed in the Local Plan to 2033. The Local Plan is currently being reviewed to cover the period to 2040, and this growth will add additional pressure to the area's transport network. As such there is a need for a substantial shift to cycling and walking, combined with wider improvements to transport

infrastructure. Two out of three personal trips are less than 5 miles, which is an achievable distance for most people to cycle^{vii}.

Economic benefits

DfT's Gear Change document states that cycling contributes £5.4bn to the economy per year and directly supports 64,000 jobs. A number of studies, including a review of national and international studies showing the economic value of investing in cycling infrastructure^{viii} found:

- Cycle schemes can achieve more for less, producing between £5 and £35 of benefit to the economy for every £1 spent^{ix};
- People cycling visit local shops more regularly, spending more than users of most other modes of transport^x;
- Per square metre, cycle parking delivers 5 times higher retail spend than the same area of car parks;
- Public realm improvements, including those that cater for cycling, have been shown to result in increased trade at local businesses;
- Neighbourhoods with cycle-friendly characteristics low traffic volumes, walkable, close to off-road cycle paths – are more desirable or have higher property values, low retail vacancy rates, and increased trade; and,
- Cycle tourists on average spend 9% per head per trip more.





EXISTING TRAVEL PATTERNS (PRE COVID-19)

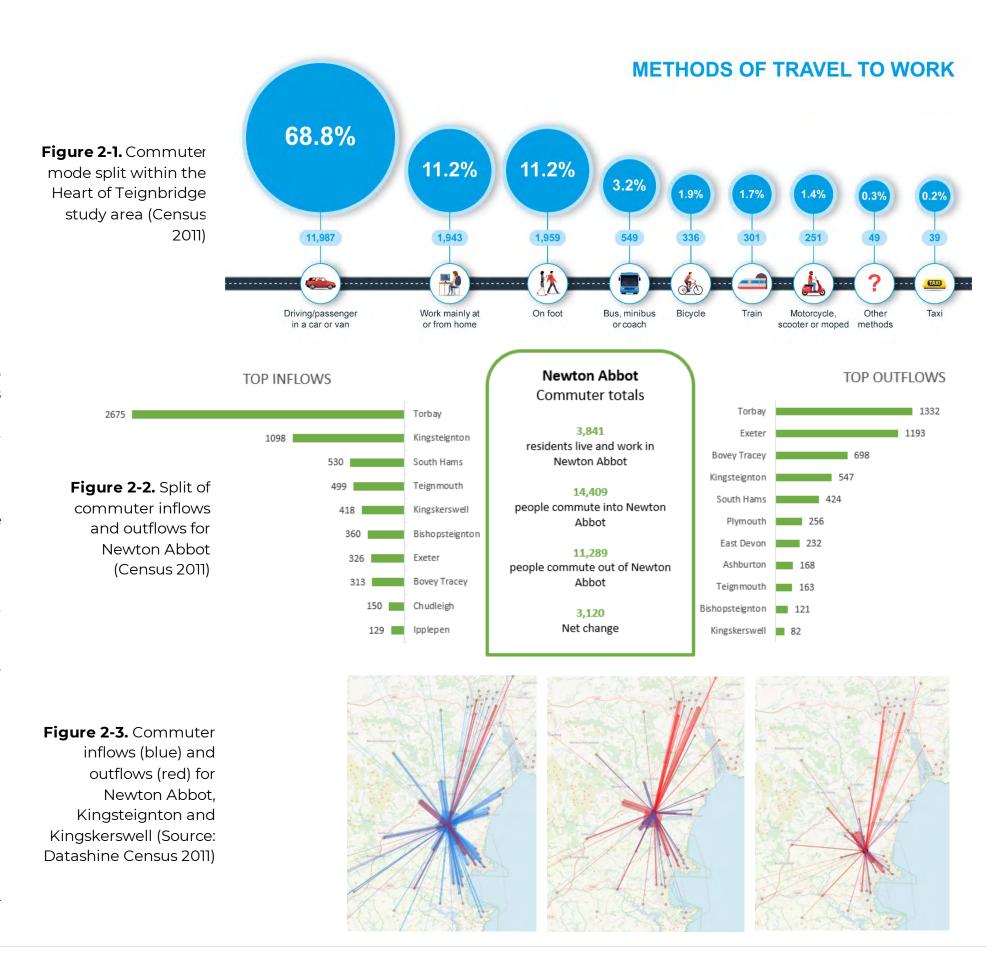
People travel for a range of purposes including work, education, health, shopping, and leisure. However, many congestion issues are caused by travel to work and this trip purpose has the most detailed data available at a local level.

Over two-thirds of journeys to work by Heart of Teignbridge residents are made by car or van as a driver or passenger, with 11% travelling to work on foot (Census 2011). Just 2% travel to work by cycle, lower than the average for urban areas in England. This high level of car dependency contributes towards many of the climate, health, and growth challenges facing the area. Without action and a change in travel behaviour, congestion will remain a significant issue and increase further in future with the growth of residential and employment sites.

There have been some positive changes since 2011. Investment in cycle infrastructure and other supporting measures has led to increased numbers of people cycling and walking. This includes the completion of The Stover Trail between Newton Abbot and Bovey Tracey, the delivery of the Town Quay bridge and the first sections of the Teign Estuary Trail. As set out in the following sections of this report, there is potential for a much larger shift to active travel, unlocked by improved infrastructure.

Each of the three settlements have differing travel patterns (see Figure 2-2 and Figure 2-3):

- Newton Abbot is an employment hub, with a large proportion of people who both live and work in the town plus a net inflow of commuters. Other than Newton Abbot itself, Torbay is by far the most important commuter origin and destination. There are also strong commuter links with Kingsteignton, Exeter, South Hams and Bovey Tracey.
- Newton Abbot is also an important public transport hub
 for the wider area, with a mainline rail station and a
 reported 20% of all bus passengers at the Sherborne Road
 hub changing between buses here. Improving active
 travel connections to these public transport interchange
 hubs could therefore play an important role in
 encouraging a shift to more sustainable modes of
 transport across the wider area.
- Kingsteignton and Kingskerswell are predominantly commuter settlements, with high levels of out-commuting to Newton Abbot, Torbay, and Exeter. Overall levels of caruse are notably higher than for Newton Abbot residents.





POLICY CONTEXT

There are clear opportunities to support environmental, health, social and sustainable mobility goals by better connecting people and places with targeted investment in active travel infrastructure. This is evident in both national and local policy that has guided and shaped this LCWIP process. A summary overview is provided below.

NATIONAL POLICY & PLANS

Garden Communities Prospectus (MHCLG 2018)

In June 2019, Teignbridge District Council were successful in their bid to join Government's Garden Communities Programme, unlocking capacity funding from central Government to help deliver new homes across the country. The Garden Communities proposals build on those within the Local Plan and seeks to incorporate high quality placemaking and Garden Communities principles within the proposed development sites.

The Garden Communities Prospectus sets out Government's vision and expectations for high-quality place-making as part of garden communities. It calls on partner organisations, including local authorities, to build communities with local character, good employment opportunities, integrated and accessible transport, innovative uses of technology, and beautiful green spaces. Garden communities should promote public transport, cycling and walking, create healthy places, provide good quality green spaces, provide biodiversity net gain, and enhance natural capital.

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 (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 & PLANS

Local policy relating to cycling and walking is contained in a range of documents, outlined below. These **policy documents give strong support for cycling and walking**. Several documents, including the Local Plan, are currently being reviewed, making this an ideal time to bring forward and integrate further cycling and walking proposals.

Key local policy & plans include:

- Teignbridge Local Plan, 2013-2033
- Devon and Torbay Local Transport Plan 3 (LTP3), 2011-2026
- Devon Transport Infrastructure Plan (V1.2)
- Teignbridge Infrastructure Delivery Plan
- Newton Abbot Town Centre Masterplan
- Houghton Barton NA1 Development Framework Plan Supplementary Planning Document (SPD)
- NA3 Wolborough Masterplan, Revised Draft
- Devon Cycling and Multi-Use Trail Network Strategy
- Teignbridge Urban Design Guide SPD
- Newton Abbot Neighbourhood Development Plan, 2016-2033

- Newton Abbot Garden Town
- Future High Street Fund schemes

Key relevant themes emerging from local policy are set out on the following pages.

Policy support for cycling and walking

There are strong levels of support for walking and cycling in existing local policy.

- Local Plan Policy S9 (Sustainable Transport) states "the transport system will offer businesses, communities and individuals safe and sustainable transport choices, helping to deliver a low carbon, successful economy and stronger, healthier communities...";
- Local Plan Policy H1 (Heart of Teignbridge Movement), states that support will be given to "comprehensive walking and cycle routes that connect within the Heart of Teignbridge and to nearby towns and villages";
- 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; and.
- The Newton Abbot Neighbourhood Development Plan recognises the contribution that cycling could make to the life of Newton Abbot, through commuting, cycling for health and pleasure.

Growth areas and local plan designations

The Local Plan sets out housing and employment growth areas, including approximately 5,000 new homes at strategic sites at Houghton Barton (NA1) to the west of Newton Abbot, Wolborough (NA3) to the south, and in Newton Abbot Town Centre.

The Local Plan states Newton Abbot will be the business, educational, leisure and retail centre for South Devon. It is a focal point for a large hinterland, with busy and varied markets serving all South Devon. Kingsteignton will become a town with an



individual character, a sustainable and prosperous place, with an aspiration to consolidate the town centre around "the fountain". Kingskerswell will develop as a thriving, sustainable village. A stronger retail core for the village is noted as being essential to keep Kingskerswell vibrant and give it a focus.

The **Local Plan** also sets out a number of transport improvements to support this growth, including:

- Comprehensive cycling and walking routes;
- Realignment of the A382 Bovey Tracey Road between Newton Abbot and Drumbridges roundabout at the A38 with cycling provision (Partly delivered at time of writing);
- A new road between the A382 and Kingsteignton;
- Jetty Marsh Phase 2 link road;
- Measures to improve air quality;
- An extension of the pedestrian bridge at Newton Abbot rail Station to connect to Forde Road in the Brunel Industrial Estate;
- Aller Brake to Decoy cycling and walking link across the South Devon Link Road;
- Investigate potential for Park & Ride and Park & Change;
- A freight transfer station on the A38 and/or the A380 corridor; and
- An alternative area for a bus terminus in Newton Abbot, close to the town centre shops.

The **Devon and Torbay Local Transport Plan 3, 2011-2026**, sets out a strategy for market & coastal towns and rural Devon, which encompasses the Heart of Teignbridge area. Key relevant schemes include:

- Completion of the Teign Estuary Trail between Newton Abbot and Teignmouth;
- On-road cycle route improvements between Newton Abbot and Torbay (some improvements now delivered);
- Improving interchange facilities at bus and rail stations;
- Develop a parking policy which supports the vitality of town centres; and
- Central area bus priority in Newton Abbot.

These schemes are reflected in the **Transport Infrastructure Plan**, which also includes improvement to Newton Abbot
Strategic Cycle Routes and sets out an aspiration for a proposed

Park & Change site at Forches Cross on the outskirts of Newton Abbot.



The **Newton Abbot Town Centre Masterplan Delivery Strategy 2018** sets out proposals to revive the core area of the town centre.
It identifies key issues in this area of the town, including:

- Potential to enhance retail frontages and the public realm, including around the multi-storey car park and Market Square;
- Pedestrian routes into the Market Square run through service areas giving a poor pedestrian experience;
- Footfall and use of Market Street and Sherborne Road is low;
- Poor quality central route that passes through the key bus interchange;
- Need for increased levels of cycle parking; and,
- River Lemon built over presenting an underutilised feature.

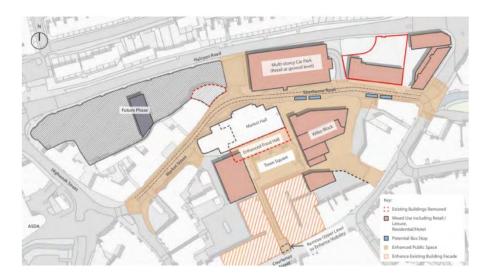


Figure 2-4: Town Centre Masterplan – Preferred Option

The proposals (with the preferred option shown in Figure 2-4) include:

- improving the frontages of Market Walk (completed);
- New hotel on the Halcyon Road car park site (planning application in progress);
- Cladding the multi-storey car park, with new commercial units on the ground floor. Changing the car park ramp to access on to Halcyon Road was also explored, but was subsequently not found to be feasible due to traffic impacts and construction costs;
- Public realm enhancements to Sherborne Road; and
- Decking of Cricketfield car park.



In December 2020, Government announced that the **Newton Abbot Future High Street Fund** (FHSF) bid had been successful, although not for the full amount requested. The FHSF bid included elements from the Newton Abbot Town Centre Masterplan, including transformation of the market and surrounding area. The bid also included proposals for:

- Walking and public realm improvements on Queen Street, including widening footways and more pedestrian priority; and
- Improvements to NCN Route 2 between Sherborne Road and The Avenue.

These proposals are now progressing towards construction.









The Local Plan highlights that Sustainable Development should be the "golden thread" running through plan making and decision taking. It sets out proposals for a sustainable neighbourhood at Houghton Barton, to the west of the town (Figure 2-6). A site of approximately 160 hectares is allocated for development, to include 1,800 homes, 18 hectares of employment land, and a new primary school. The Houghton Barton NA1 Development Framework Plan SPD, sets out further requirements to help shape the delivery of the site. This includes the following transport improvements:

- A382-A383 road, with dedicated foot and cycleway;
- £3.89m for internal cycling and walking routes;
- Safe pedestrian links to Newton Abbot town centre and bus stops on the A383;
- Circular 20-minute frequency bus service;
- Bus shelters, electric vehicle charge points and cycle parking;
- Park & Change site at Forches Cross;
- A382 widening including cycling and walking facilities;
 and
- Newton Abbot East-West cycling route along Ashburton Road from Hele Park to Greenway Road and new crossings of Exeter Road and Jetty Marsh Road (due to complete this year).

Land at Wolborough, to the south of Newton Abbot, is also identified as a strategic site allocation in the adopted Local Plan (Figure 2-5) and has outline planning approval. A site of approximately 120 hectares, the Local Plan proposes at least new 1,500 homes and 10 hectares of employment land. The **NA3 Wolborough Masterplan – Revised Draft January 2019** sets out more detailed requirements for the site. This includes:

- An average density of 40.58 dwellings per hectare;
- Safe pedestrian connections to Newton Abbot town centre and railway station;
- Network of cycling and walking routes, with 3m+ width machine-laid tarmac or other suitable surface;
- Bus shelters, electric vehicle charge points, and cycle parking; and
- A Travel Plan, to promote more sustainable travel.

A cycling and walking review of the proposals for these sites can be found in Section 4.

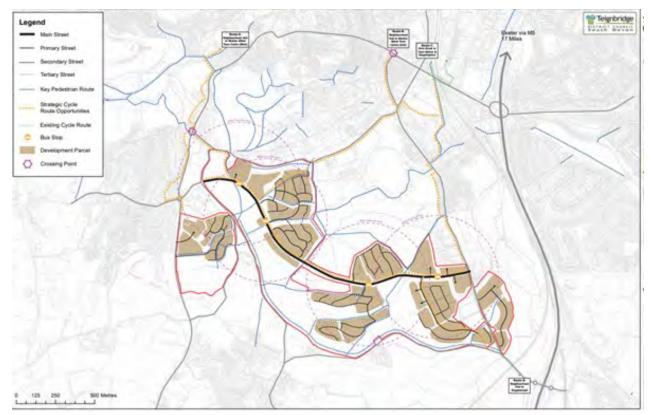


Figure 2-5: NA3 Wolborough Street Layout and cycle routes

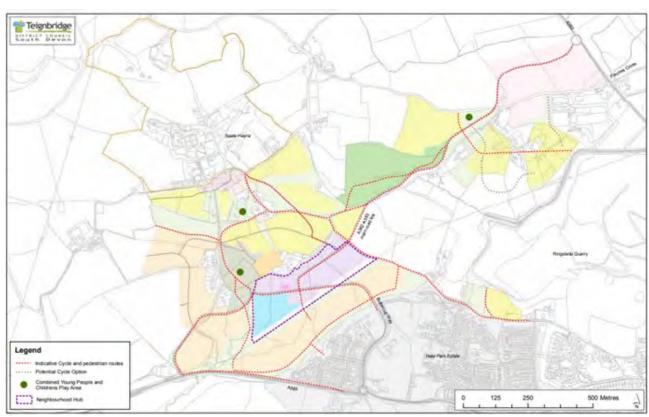


Figure 2-6: NA1 Houghton Barton proposed cycle routes



3 NETWORK PLANNING FOR CYCLING

EXISTING CYCLING TRIPS & ISSUES

According to the 2011 Census, just 2% of Heart of Teignbridge residents travelled to work by cycle. However, 39% of commute trips were less than 5km, indicating there is significant potential for making cycling to work viable and attractive for short-distance journeys.

Figure 3.3-1 shows that rates of cycling across the study area are low, with none of the Census output areas (shown as the green shaded areas) containing more than 5% of residents cycling to work in 2011. The blue circles show an average 24-hour daily cycle counts at key locations using the latest years available data. They reflect the typically low cycle volumes, albeit with higher flows on the offroad leisure routes.

Since 2011, cycling rates in the area have continued to increase. The delivery of the Stover Trail, first sections of the Teign Estuary Trail, and improvements to the central cycling network are all helping to develop a cycling culture in the area. During the recent Covid lockdowns, many people have walked and cycled more in their local areas, with the highest recorded cycle flows on the Stover Trail increasing from 400 cycle trips per day before March 2020, to over 1,000 afterwards. There is a clear opportunity to build on this momentum.

Nonetheless, the area still faces significant challenges to increasing cycling use, including:

- Low current levels of cycling, particularly when compared to other urban areas in England;
- High levels of car dependency, with many streets and public areas dominated by cars and parking;
- Fragmented existing cycle network, with inconsistent quality and coverage of dedicated cycle routes, meaning some people are not comfortable using the existing routes;
- Hills in some areas are a significant barrier to increased cycling for many people, although the increased availability of electric bikes may be helping to overcome this; and
- Safety, coherence, and legibility of cycle routes.

Nationally, the Sustrans "Bike Life" survey is the biggest assessment of cycling in urban areas in the UK and Ireland. Over 17,000 randomly selected respondents in 14 cities participate in the survey. Key findings are that safety is the biggest barrier to cycling, and that cycle routes separated from pedestrians and motor vehicles are significantly more likely to encourage people to cycle than other forms of cycle infrastructure. Only 28% of residents across the Bike Life cities thought cycling safety was good, and without improvements to road safety, most residents are unlikely to start cycling or cycle more.

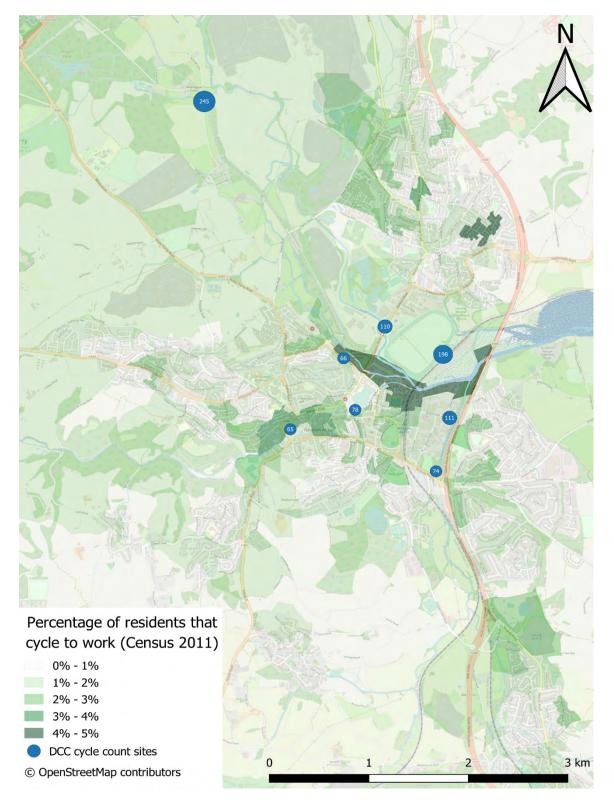


Figure 3.3-1: Residents that cycle to work and selected cycle counts (average day)



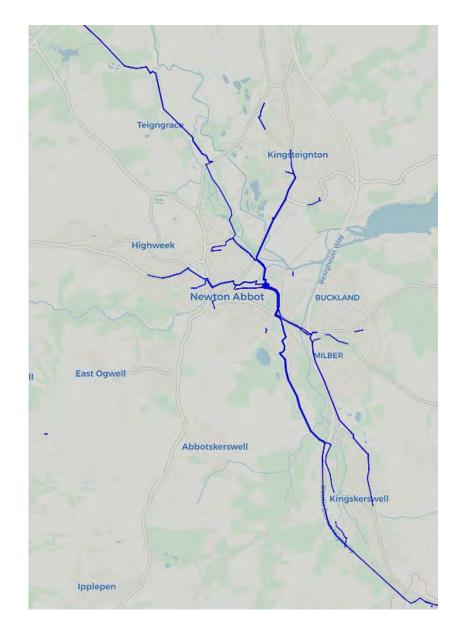


Figure 3-2. 2011 Highest commuter cycle flows. Increased line width represents increased usage (Source: Propensity to Cycle Tool)

Figure 3-2 shows the estimated routes taken by people cycling to work in 2011 (top 30% of cycle routes only). This highlights that the most popular routes are in the town centre, and south to Kingskerswell and Torbay. Connections to Kingsteignton are also highlighted, which may either make use of the off-road cycle route alongside the racecourse or Newton Road. Routes towards Bovey Tracey are also highlighted, although the Stover Trail and cycle bridge over the A38 opened after the census in 2015, which is likely to have significantly increased demand on this route.

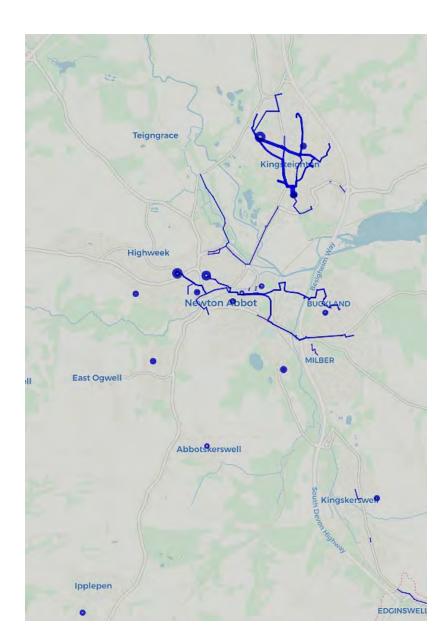


Figure 3-3. Highest school cycle flows. Increased line width represents increased usage. (Source: Propensity to Cycle Tool)

While commute trips are important, they do not represent all frequent cycling journeys. Figure 3-3 shows estimated routes taken by children cycling to school in 2011 based on the 2011 school census data. The data highlights that a significant number of school journeys cover short distances within Kingsteignton and across central Newton Abbot, with some school journeys crossing over the A380 from Buckland and Milber to schools within the town centre, highlighting the importance of walking and cycling connections over the A380.

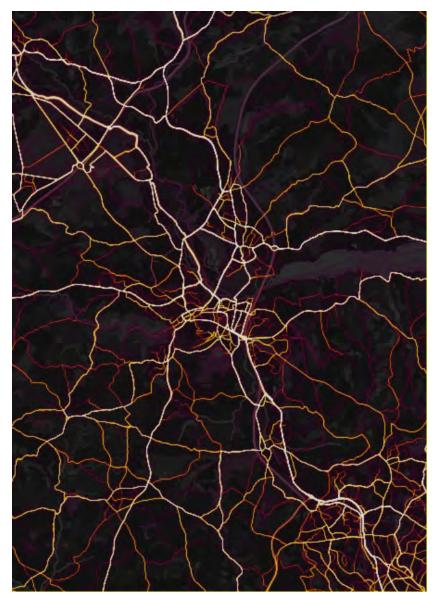


Figure 3-4. Strava cycle flows. Brighter colours = increased usage. (Source: Strava)

Finally, outputs from the Strava global heatmap (www.strava.com/heatmap) in Figure 3-4, show anonymised data collected from people cycling using the Strava mobile app. This data shows the most popular routes are along the key corridors heading into the town centre, as well as the leisure routes such as the Stover Trail and along the Teign Estuary. While Strava data is not necessarily representative of all cycling journeys made in the area, it still highlights the importance of cycle routes connecting the study area to Newton Abbot town centre, the Stover Trail, and the proposed Teign Estuary Trail.



Figure 3-5 shows the cycle and pedestrian casualties across the study area, as recorded by the Police. For every injury shown on the map, there are likely to be a large number of additional injuries and near misses that remain unreported.

No pedestrian or cycle fatalities in the area were recorded over the 2014-2018 period. However, Figure 3-5 shows a number of cycling and walking casualties occurred around Newton Abbot town centre and along the main corridors from Kingsteignton, Kingskerswell, and Abbotskerswell. In particular, there were recorded accidents involving people cycling and walking along:

- Kingsteignton Road and The Avenue;
- Ashburton Road (note: a new off-road cycle route was completed since 2018, which should help to reduce cycling casualties);
- East Street (safety scheme to partially address this identified by Devon County Council, but not yet completed);
- Queen Street; and
- Totnes Road.

Many of these roads serve as primary cycling and walking links between the major commercial, employment and residential areas within the study area. Collisions were often recorded at junctions and roundabouts, including links to cycle routes and footpaths, highlighting the increased potential for collisions to occur in these places.

Figure 3-6 shows suggestions for cycle route improvements posted recently on the widenmypath.com website. Many of the requests emphasise a need for improved cyclist and pedestrian crossings for people cycling and walking, better signage, and traffic-free cycle routes along key roads connecting Newton Abbot town centre with the rest of the area.

There are also numerous requests more generally for 20mph zones and limits for key streets in the area.

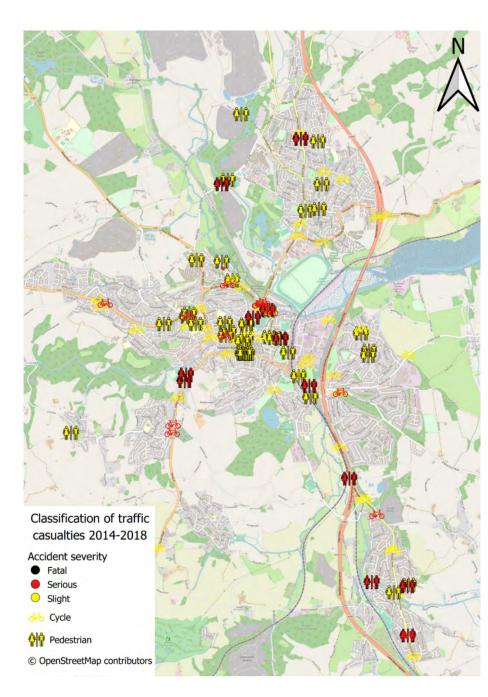


Figure 3-5. Traffic casualties, pedestrians, and cyclists 2014-18 (Heart of Teignbridge study area)

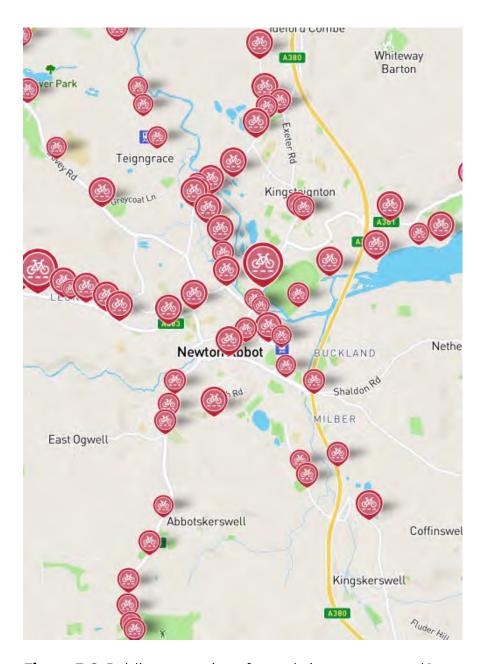
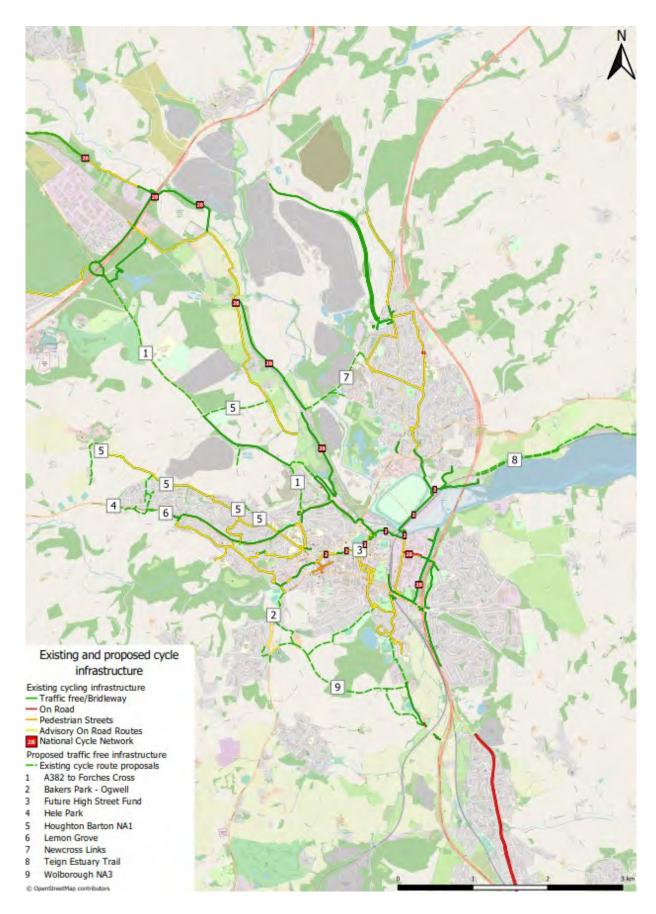


Figure 3-6. Public suggestions for cycle improvements (Source: Widenmypath.com)





PLANNED CYCLE INFRASTRUCTURE SCHEMES

A large number of cycling infrastructure schemes are already underway in the Heart of Teignbridge area. Figure 3-7 shows the existing cycle network and planned schemes across the area, as listed, and described in Table 3.1. These schemes have existing designs and are under development.

The map shows there is a good level of existing provision in some places. The in-progress cycle routes will help develop a more coherent cycle network, linking in to new development sites and completing the long-held aspiration for the Teign Estuary Trail link between Newton Abbot and Teignmouth. However, as highlighted in this document, there will still be large gaps in the network that are not served by All Ages and Abilities cycle routes.

Table 3.1. Planned cycle infrastructure schemes

	Proposal	Description	
1	A382 to Forches Cross	Traffic free cycle route from Drumbridges to Newton Abbot along the A382. Phase 1 is complete and DCC have also been awarded Government funding to progress Phase 2.	
2	Bakers Park - Ogwell	Traffic-free cycling and walking route providing an alternative to Totnes Road.	
3	Future High Street Fund	Including improvements to NCN2 through Newton Abbot, with construction for the NCN elements due in 2022.	
4	Hele Park	Traffic-free cycle routes as part of the Hele Park development	
5	Houghton Barton NA1	Various cycle route proposals as part of the NA1 Houghton Barton planning stages. As part of this study, some additional linkages and amendments have been suggested to improve the cycling and walking connectivity to and through the development.	
6	Lemon Grove	Proposed cycle route through development site.	
7	Newcross Exeter Road Links	Cycle routes from Stover Trail at Exeter Road to Newcross.	
8	Teign Estuary Trail	A cycling and walking trail connecting Newton Abbot and Teignmouth along the Teign Estuary. Current focus is on the section from Passage House to Bishopsteignton, with a planning application approved in December 2021. This section will connect to existing sections of NCN3 and the wider Newton Abbot cycle network. A section between Teignmouth and Dawlish has also been designed, and opportunities are being sought for a seafront route via NR rail resilience project. To find out more visit: https://www.devon.gov.uk/roadsandtransport/traffic-information/transport-planning/the-teign-estuary-trail/	
9	Wolborough NA3	Link road with traffic free cycling routes as part of the proposals for the Wolborough NA3 development. As part of this study, some additional linkages and amendments have been suggested to improve the walking and cycling connectivity to and through the development.	

Figure 3-7: Existing and planned cycle infrastructure



ORIGINS & DESTINATIONS

The LCWIP Technical Guidance sets out that identifying demand for a planned cycle network should start by mapping the main journey origin and destination points.

In line with the guidance, census output areas were chosen to represent journey origins from existing residential areas. Additional origins and destinations were identified as shown in Figure 3.8, including:

- Future housing and employment sites in the adopted Local Plan;
- Core 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.

Cross-boundary journeys to and from locations outside the study area were also considered, with particularly strong demand identified for travel south along Newton Road towards Torbay. In addition, each of the datasets referred to in Section 4, including cycling to school data, Strava data, and road collision data, were considered when identifying potential cycle trips both now and in the future.

DESIRE LINES

Geographic Information Systems (GIS) software was used to locate and map the principal trip origins and destinations and determine direct desire lines for movement between them as set out on the following page. Desire lines are indicative links between origin and destination points and do not, at this stage of the LCWIP process, need to link to existing roads or cycle routes. Specific routes are identified and assessed further on in the process.

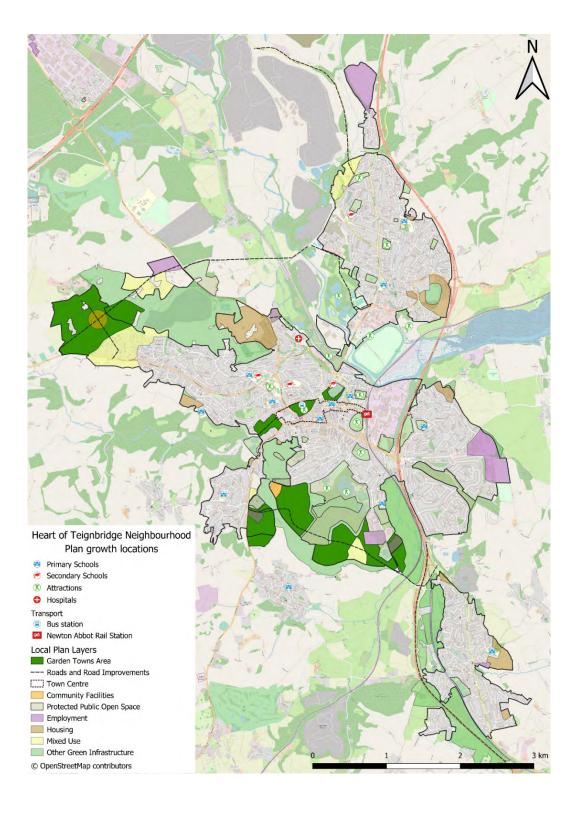


Figure 3-8. Origins and destinations



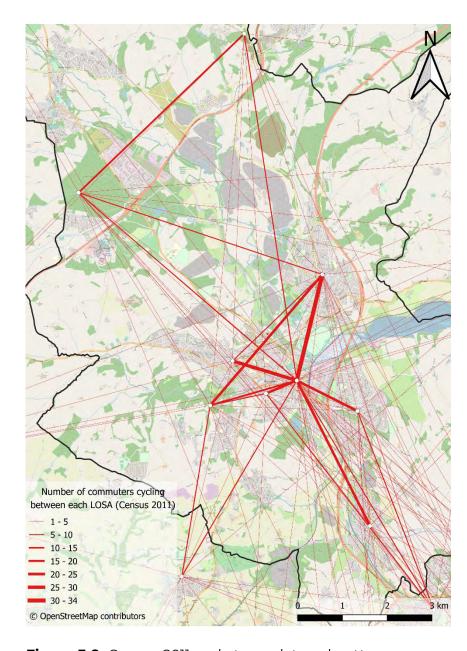


Figure 3-9. Census 2011 cycle to work travel patterns

Figure 3-9 shows cycle to work trip patterns (as straight lines) across the Heart of Teignbridge study area from the 2011 census. The map shows that most of the existing cycle movements are between Newton Abbot town centre and Kingskerswell, Kingsteignton, Milber and the Highweek area. There are also notable flows between various locations in the area and Torbay.

The Propensity to Cycle Tool (PCT) maps these census desire lines to the local highway network. The PCT includes a range of future scenarios based on different assumptions about growth in cycling levels, including government cycling targets. In the future scenarios included in the PCT, the general distribution of routes remains the same albeit with

greater flows. The scenarios do identify some additional popular routes through the Brunel Industrial Estate and through more of the residential areas to the north and east of Kingsteignton.

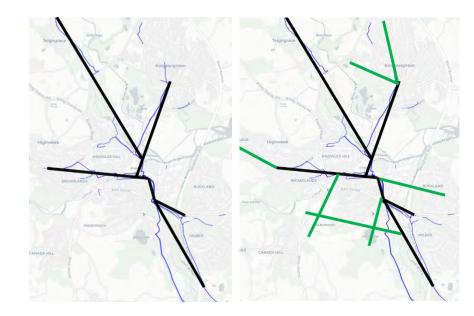


Figure 3-10. Desire lines development

An initial set of desire lines was identified based on the current and future year scenarios in the PCT. Additional desire lines were then added to account for the new growth sites identified in the Local Plan, which are not included in the PCT (Figure 3-10).

A number of these desire lines already have committed plans in place to upgrade cycle infrastructure as set out previously (e.g., Teign Estuary Trail). Where appropriate these plans have been reviewed, or suggestions for further development made to ensure they meet the latest design guidance. As such, these desire lines with existing detailed proposals were not taken forward for further development in this report.

Similarly, the Stover Trail already provides a high-quality cycle route for one of the desire lines, with plans already in place to tackle a key pinch point on the route. A light touch review of this route was undertaken, but this desire line was not taken forward as one of the main schemes in this report.

Once the desire lines with improvements already designed and proposed were removed and, taking into account all of the previously discussed data, the priority desire lines shown in Figure 3-11 were identified for further development.

The priority desire lines identified are:

- 1. Newton Abbot town centre (treated as an area)
- 2. Kingskerswell & Torbay
- 3. Kingsteignton
- 4. Milber & Buckland
- 5. Wolborough

A section linking between Newton Abbot quayside and the Stover Trail has also been considered under the Kingsteignton route, based on the potential to connect the Stover Trail to the proposed Teign Estuary Trail. This could create a pleasant leisure focused route that would be consistent with the character of both the Stover Trail and Teign Estuary Trail.

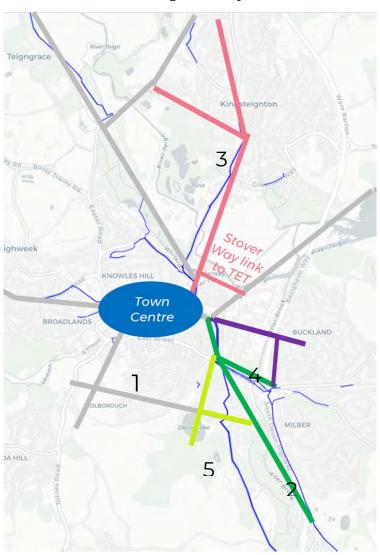


Figure 3-11. Priority Desire Lines (shown as thick coloured lines)



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 3-12. 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 3-12 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, and the process repeated. For the majority of routes, the most direct route was used as these can be brought up to the relevant design standards.

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

- The quality of existing cycling provision / infrastructure;
- 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.
- Inclusive design and accessibility should run through all five of the core design principles. Infrastructure should cater for the broadest range of people.

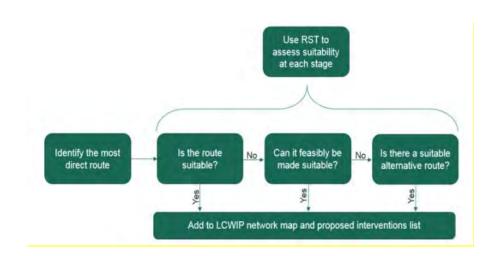


Figure 3-12. Route Audit Process (Source: LCWIP Technical Guidance for Local Authorities, DfT 2017)

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

TYPES OF IMPROVEMENTS

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



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.



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 - the implementation of such schemes is subject to forthcoming Government guidance and local consent.



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.



Parklets

A small seating area or green space created for the public to enjoy on or alongside a footway.



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.



Protected cycle track, catering for side-by-side cycling

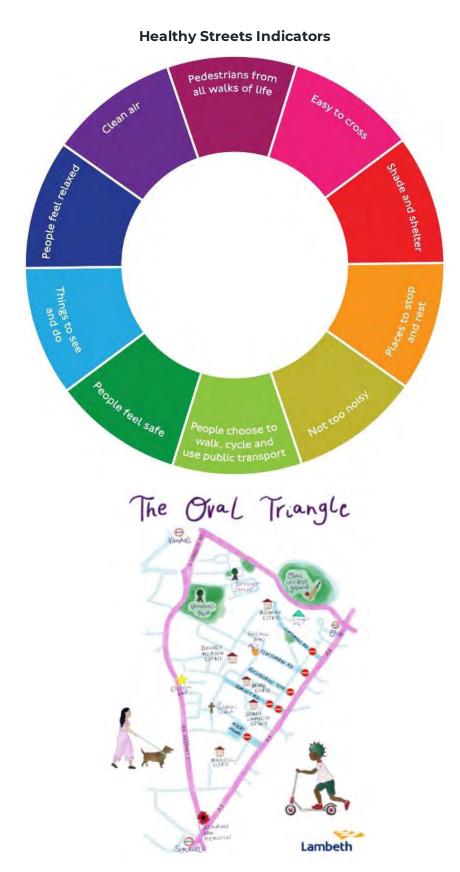


Route E9 in Exeter delivered in 2020 as part of the DfT Emergency Active Travel Fund



Orford Road, Waltham Forest: A local shopping street reclaimed for shoppers and community activity by removing through traffic





Low Traffic Neighbourhood proposals in Lambeth, London

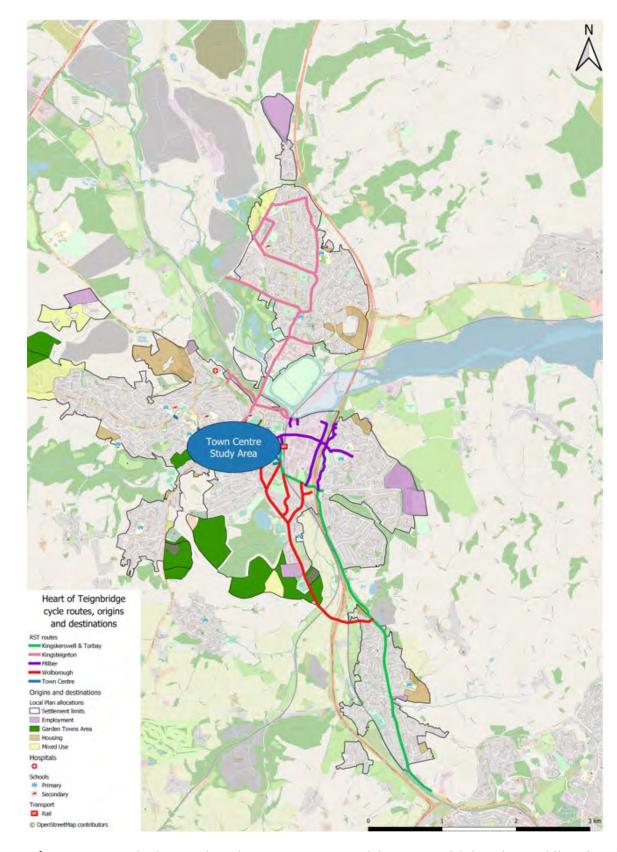


Figure 3-13 Priority Desire Lines town centre (shown as thick coloured lines)



HEART OF TEIGNBRIDGE CYCLE ROUTES

Following the identification of key desire lines and the audit process, five major cycle routes for improvement are proposed as part of this report, including:

- Newton Abbot Town Centre
- Kingskerswell & Torbay
- Wolborough
- Buckland & Milber Link
- Kingsteignton

The proposed improvements to these routes would represent a step-change in cycling infrastructure in the Heart of Teignbridge study area, with over 30km of additional traffic free and low-traffic cycle routes, suitable for All-Ages and Abilities. The majority of routes will also improve conditions for people walking and for others such as mobility scooter users. These routes will link up the key employment, retail, and residential areas that currently do not have suitable cycling provision. They will also connect the Heart of Teignbridge to Torbay via safer traffic-free routes, opening up new travel and leisure oppurtunities for residents and visitors.

Some routes include sections of shared use path, primarily due to highway width constraints and a lack of suitable alternative options. Footfall on these sections is low and as such the shared use proposals are compliant with the new LTN 1/20. Indicative green infrastructure opportunities have also been identified. Further details, including their maintenance and ownership, should be explored as the schemes develop.

It should be noted that the recommendations are at a very early stage of development and further design, engagement, and consultation with the local community will be needed as each of the schemes progresses. In particular, forthcoming Government guidance on Low Traffic Neighbourhoods will need to be considered and if proposed then local consent should be secured. For most schemes this will include a Road Safety Audit, which is a formal, independent process for checking the road safety implications of highway improvements. Auditors typically assess: mistakes or misunderstandings in the design; design standards; how all types of road user would react to the scheme; and opportunities to reduce collision risk.

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



The overall approach towards improving the cycling infrastructure in the town centre focuses on:

- Upgrading existing routes including completing missing links (focusing on the blue route shown on the map);
- Improving area-wide access to, and conditions for cycling and walking, in the town centre, focusing on the area within the inner ring road formed by the A381 and B3195 (shown in yellow on the map). This includes improving permeability for cycling, for example, through use of contraflow cycling on some one-way streets, and a wider aim of further reducing through motor traffic in this area.

Several cycling routes currently end at the edge of the town centre or do not provide a direct connection to the town centre. This includes the shared use path on the A383, Stover Trail, proposed A382 route, and route from Penn Inn roundabout. As detailed on the following pages, the short section of Highweek St immediately to the north of the town centre is currently a significant gap in this network. Completing the missing links in the town centre has the potential to transform cycling levels across a wide area, improving safety, and linking up a number of longer distance routes. This would also help significantly more people to visit the town centre shops and facilities by cycle, providing a boost to local retailers and the town centre as a whole.

One of the key elements of the town centre improvements focuses on completing an All Ages and Abilities route, linking routes to the south and east of the town centre, the rail station, shopping area, schools, colleges, and onward connections to the north of the town centre.

The route would provide improved cycling connections to a number of schools including All Saints Marsh Primary School, Highweek Primary Newton Abbot College, Coombeshead Academy, and St Joseph's Catholic Primary School,

The following pages detail the recommended improvements.

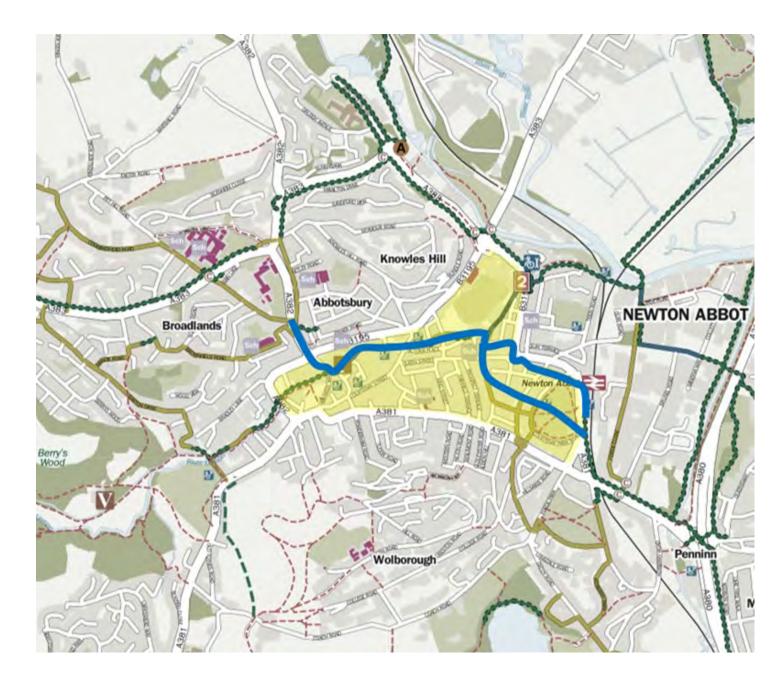


Figure 3-14 Improvements proposed for Town centre



Section 1: Highweek Street

Highweek Street is currently a significant missing link in Newton Abbot's cycle network and a barrier to increased levels of cycling and walking. The street has very high motor traffic flows with no dedicated space for cycling (see bottom left figure). It has the potential to provide a high-quality connection from the Newton Abbot East-West route, and onward connections to the north including the Stover Trail, to the core of the town centre shopping area.

There are currently three motor traffic lanes (one northbound, two southbound) and limited overall space due to buildings on either side of the street (shown in the bottom left image). The only alternative route is via Fisher Road and a narrow cut-through to Halcyon Road, which is a significant detour from the main desire line and unlikely to be attractive for most people.

This section is also a busy pedestrian route, linking Coombeshead Academy, St Joseph's Catholic Primary School and Highweek Primary School to the town centre. There are very high walking flows here, especially around the start and end of the school day (shown in the bottom right image). The junction of Highweek Street and Halcyon Road is known to be an issue for walking. Despite only a few officially recorded collisions, a number of "near misses" were observed during our site visit, with school children crossing on the wrong side of the barriers and crossing on a red light to avoid the relatively long wait in the middle of the junction (see bottom right figure).

Improving the quality of cycling and walking provision on this section has very high potential to unlock increased levels of cycling across a wide area.

OPTIONS

The overall aim is to create a protected cycle route, linking the quiet roads of Old Exeter Road and Highweek Road to the town centre, and to provide an improved crossing point at the junction with Halcyon Road for people cycling and walking.

Transformative options will need to be considered and could possibly include removing a southbound traffic lane to release the space needed for cycling and walking. This could be enabled by changes to the traffic signals and/or rationalising some motor vehicle movements, which could help better manage motor traffic flows through this area for all users including people driving and provide additional benefits for bus journeys through the area. The new Jetty Marsh Link Road may also help free up capacity at this junction, unlocking potential improvements. Further traffic modelling and design work is needed to explore the options in more detail.



Figure 3-15 Improvements proposed in Highweek street section at Town centre







Section 2: Town Centre West

This section focuses on creating a coherent cycle route, linking the schools and colleges on Ashburton Road to the core shopping area on Courtenay Street and Queen Street. The recommended improvements are:

- 1. Highweek Road link to A383 dropped kerb and shared use/protect cycle track between Ashburton Road and Highweek Road to provide a more direct cycle link
- 2. Exeter Road south of Wain Lane new toucan crossing (now completed)
- 3. Exeter Road south of Highweek Road new toucan crossing
- 4. Highweek Street new 2-way protected cycle track on west side of carriageway, enabled by removing a southbound traffic lane (see previous section)
- 5. Highweek Street/Halcyon Road junction redesign and simplify junction to provide improved cycling and walking facilities, investigate restricting some movements to improve operation of the junction (see previous section)
- 6. Highweek Street (south of Halcyon Road) and Market Street Convert operation for motor vehicles to one-way east-bound to enable new cycle track on west/south side of carriageway. Potential for public realm improvement in front of the Alexandra, linked to narrowing of service yard access junction
- 7. Sherborne Road Improved cycle route through the bus waiting area to be developed as part of a separate project
- 8. Sherborne Road explore potential for shuttle working (i.e., one direction of traffic moves at a time, controlled by traffic signals or informal "give and take") for buses, car park and delivery area access, to enable continuation of a protected cycle route. Continuous crossing over service yard access, and parallel crossing over Courtenay Street.
- 9. Widen existing shared use path on the northern side of the River Lemon next to Sherborne House. Widen dropped kerb at eastern end.
- 10. Implement FHSF scheme along Marsh Road (Cricketfield Road to Lemon Road).

11. Explore options to move existing signal crossing further north as part of any planned maintenance or renewal, to better align with the east-west cycling desire line.

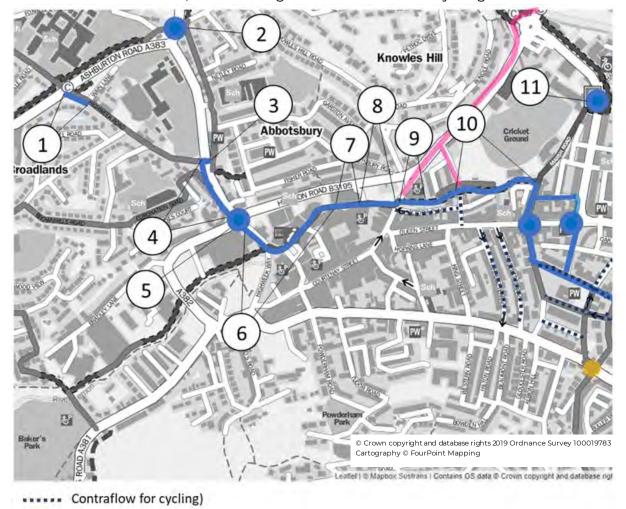


Figure 3-16 Improvements proposed at western side of town centre

Green infrastructure opportunities:

- Additional planting at 1
- Public realm improvement in front of cinema
- Sherborne Road public realm and greening
- Enhanced green infrastructure along the River Lemon



Section 3: Town Centre East

This section connects the shopping areas on Queen St and Courtenay Road to the rail station and onward connections to the south and east. The recommended improvements are:

- 1. Queen Street junction with Lemon Road Close Lemon Road to motor vehicles at its southern end except for cycles and provide a crossing from Devon Square to Lemon Road.
- 2. The Avenue junction with Queen Street New priority crossing of Queen Street. Potential for a public realm scheme around the war memorial, removing traffic and parking from the northern end of St. Paul's Road, to provide enhanced public space. To include a dropped kerb to allow people cycling on road on Queen Street to access St Paul's Road.
- 3. The Avenue New cycle track on The Avenue between Queen Street and Lemon Place, providing a link to NCN2 (FHSF scheme).
- 4. Railway Station to The Avenue Provide quiet cycle route along Oak Place, including:
 - a. Kerb realignment to create off-road cycle path (shared use or protected) on Queen Street between Oak Place and The Avenue.
 - b. Provide quiet road route along Oak Place, including giving priority to the cycle route at side roads, public realm improvements, restriction of some parking at the eastern end, and dropped kerb/improved access on to Courtenay Park Road.
 - c. Conversion of small section of route through Courtenay Park to protected cycle track/shared use path, with limited widening of the path if appropriate.
- 5. Queen Street Continue shared use path to station entrance and improve crossing outside the station to allow for pedestrian and cycle use.
- 6. Courtenay Park Consider shared use or segregated path through Courtenay Park to provide a direct link between Penn Inn roundabout and the Town Centre. (Including changing the by-law against cycling in the park). Consider improved crossing of Station Road.

There is also an opportunity to introduce contraflow cycling on a number of one-way roads in the area to increase accessibility for people cycling. These opportunities are shown as dotted blue lines on the plan. Contraflow cycling can be enabled through use of a separate cycle track, or mandatory (solid-white) cycle lane. For streets with speeds under 20mph and vehicle flows under 1,000 vehicles per day, there may be no need for dedicated cycle facilities. Where there is good visibility cyclists and on-coming drivers should be able to negotiate passage safely. The most appropriate type of contraflow cycle provision will be determined at the detailed design stage. The desire for contraflow cycling on Queen Street was also identified during engagement. However, due to the levels of traffic on Queen Street, this would require a dedicated lane or track. This is not likely to be deliverable under the current FHSF proposals due to competing needs for parking, servicing, buses, and wider footways, with the focus of the scheme being to improve the shopping

experience. Improving the parallel NCN2 route provides an alternative option for eastbound cycling.

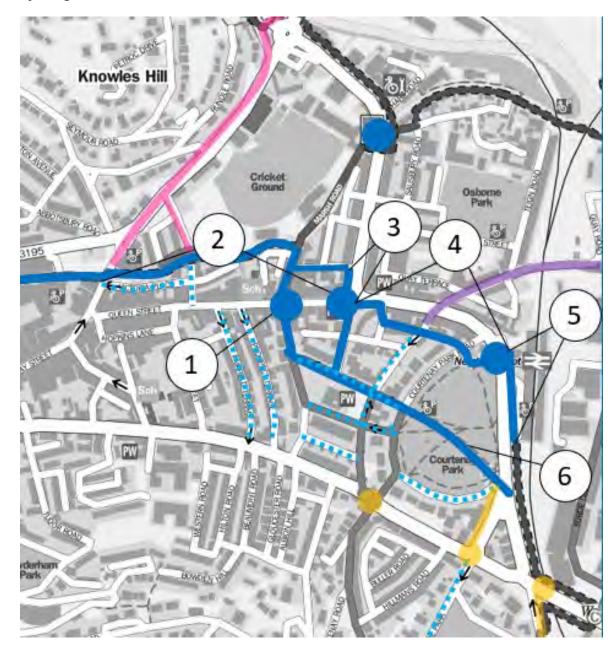


Figure 3-17 Improvements proposed at eastern side of town centre

Green infrastructure opportunities

- Public realm scheme at the war memorial
- Enhancements to Courtenay Park
- Planting and "parklets" as part of Queen Street FHSF



KINGSKERSWELL & TORBAY

The Kingskerswell & Torbay route is designed to create an All Ages and Abilities (AAA) route linking the Heart of Teignbridge to the English Riviera. Upgrading the existing 3.5-mile route between Newton Abbot, Kingskerswell and Torbay has the potential to:

- Better serve the well-used commuter route with some of the highest existing cycle commuter flows in the area, connecting key employment and retail areas,
- Improve active travel links to the existing railway station at Newton Abbot and the proposed railway station at Edginswell,
- Form part of the NCN, linking Kingskerswell and Torbay to the wider network; and
- Improve connections to Abbotsbury School and Kingskerswell Primary School.

The route currently comprises of a mix of shared use and on-road cycling provision that is not suitable for All Ages and Abilities and does not meet current design guidance. There were two serious cycle causalities and two slight cycle causalities along this section of Torquay Road/Newton Road between 2016 and 2020.

A potential complimentary parallel route was considered. The Aller Valley Country Park and Aller Valley Trail is shown on the TDC Local Plan 2013-2033 Policies Map, on land adjacent to the South Devon Highway (approximate area shaded dark green on the map to the left). Local Plan policy KK4 states the park shall include "a safe cycle and walking link between Kingskerswell, Torquay and Newton Abbot, constructed to ensure that it is suitable for all abilities and age groups". At present there is no current scheme, funding mechanism or land agreements in place. For the purposes of this LCWIP, the route shown through the centre of Kingskerswell is recommended as a priority because: it is more direct; it connects to a greater population, including schools and local centres; will be attractive to all users throughout the year due to better natural surveillance and lighting; and is likely to be more deliverable in a shorter timescale.

The following pages detail the proposed improvements needed to deliver this trail. The route has been split into two sections from Newton Abbot rail station to Kingskerswell, and from Kingskerswell to Torbay.

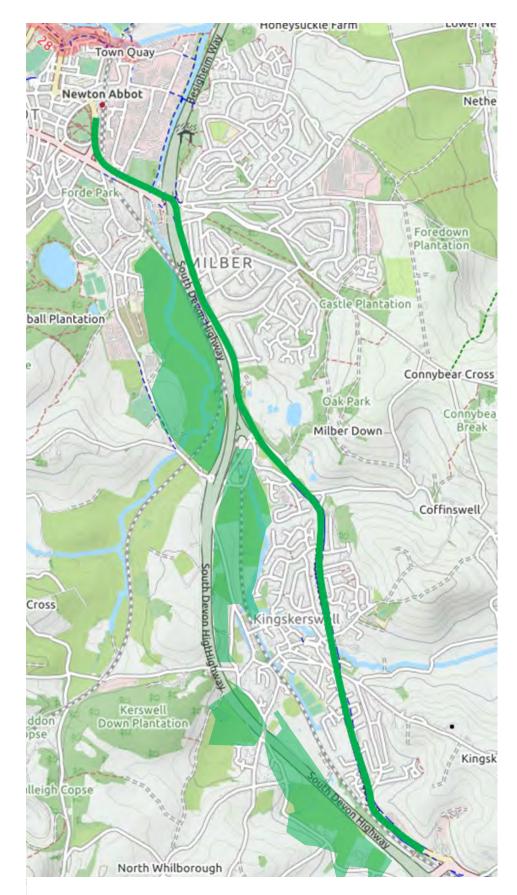


Figure 3-18 Kingskerswell & Torbay route

© OpenStreetMap contributors



KINGSKERSWELL & TORBAY

Section 1: Newton Abbot railway station to Kingskerswell

This section of the Kingskerswell & Torbay route runs from Newton Abbot railway station via the existing cycle routes until the end of Aller Brake Road.

The recommended improvements are:

- 1. Station Road provide a continuous crossing over station car park exit and improve visibility for drivers exiting
- 2. A381 Torquay Road explore potential to widen shared use path and provide an improved bus waiting area, enabled by land negotiation.

The section from the railway station to Penn Inn roundabout is currently a shared use path, which would ideally be upgraded to a protected cycle track due to the number of people walking on this route. This would either require reducing the number of vehicle lanes, which would likely cause significant congestion, or very high cost and difficult to deliver measures. These could include widening into the station car park area to create a cycle route, a new walking and cycling bridge over the railway, and potentially creating a new walking path through the grounds of Forde House and converting the existing footway to a cycle path. Due to the high costs and delivery challenges involved for the level of benefit, this has not been included in our recommendations at this stage. Vegetation along the route should also be cut back and maintained, with currently 0.5 to 1 meter of path unusable due to hedge growth.

- 3. A381 Torquay Road improved crossing of A381 at junction with Keyberry Road, considering the potential for a toucan crossing. There is currently a pedestrian crossing desire line at this location with no dedicated crossing facilities.
- 4. Penn Inn Roundabout Enhance the existing community-led public realm project by improving the accessibility of the approaches to the underpasses and attractiveness of the cycling and walking environment in the centre of the roundabout, building on the work of the Newton Abbot Community Interest Company. To include a review of signage and lighting, and removal of barriers.
- 5. Improved crossing from cycle path to the proposed Aller Brake Road shared use path (see reference 6 below).
- 6. Aller Brake Road This section of the route was constructed as part of the South Devon Link Road works. It has low traffic volumes, but the high speeds enabled by the long, straight road mean it is not suitable for cycling for All Ages and Abilities. A high-quality route could be created either:
 - on-street, with motor traffic speed reduction and traffic calming.

• traffic-free, widening the existing footway into verges, and with short sections of shuttle working for motor traffic, to create a continuous protected cycle route or shared use path.

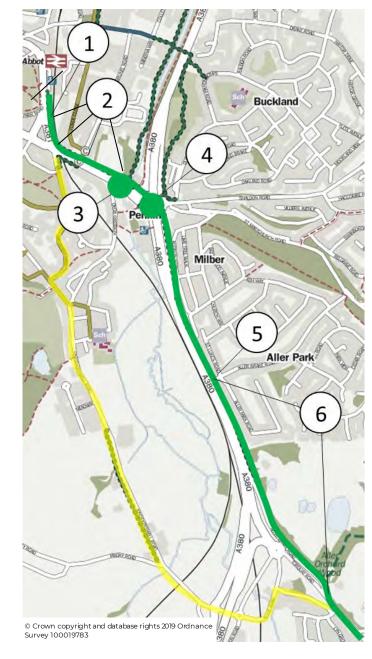


Figure 3-19 Kingkerswell & Torbay route-

Green infrastructure opportunities

- Penn Inn roundabout planting and greening
- Further planting along Aller Brake Road, which may also help reduce traffic noise from the South Devon Link Road.



KINGSKERSWELL & TORBAY

Section 2: Kingskerswell to Torbay

This section of the Kingskerswell & Torbay route centres on a proposal for a protected cycle track passing along Torquay Road/Newton Road through Kingskerswell to upgrade the existing largely on-road advisory cycle lanes. The route would provide a safe, coherent, and more attractive cycle link from the Heart of Teignbridge area to Torbay. It could tie in with the cycle infrastructure proposals described in the Torbay LCWIP to create a high-quality cycle network connecting the area's major employment, residential and leisure areas. The recommended improvements are:

- 1. Torquay Road/Newton Road Protected cycle track, enabled by narrowing carriageway width to circa 6m (current typical width is 9-11m). A bidirectional two-way cycle track appears to be the most deliverable way to achieve LTN1/20 standards on this route, however, other options could also be explored. Two-way cycle tracks have been successfully delivered across the country and are recommended due to limited highway width available, infrequent crossings, and opportunities for side-by-side cycling, for example, with children. Property access would be maintained along the route. Potential issues with two-way tracks including complex junctions and risks of retaining priority over side roads can be effectively managed through appropriate design.
- 2. Torquay Road north of Moorpark Road formal crossing (e.g., Toucan) to link to cycle route on Aller Brake Road and provide a crossing point for people walking
- 3. Torquay Road northbound bus stop convert to floating bus stop (cycle track passes behind the bus stop)
- 4. Newton Road junction with Cole's Lane formal crossing or continuous crossing
- 5. Newton Road junction with The Avenue continuous crossing across Avenue Road
- 6. Newton Road junction with Barnhill Road parallel crossing
- 7. Newton Road bridge Existing cycle track and parking reconfigured. Construct floating bus stop on west side. Improved crossing of Water Lane
- 8. Newton Road junction with Manor Drive reconfigure parking outside shops to create sufficient space for cycle track. Continuous crossing of Manor Drive
- 9. Torquay Road junction with Manor Gardens floating bus stop on west side. Continuous crossing of Manor Gardens
- 10. Torquay Road junction with Stadium Drive continuous crossings of Stadium Drive and petrol station entrance/exit
- 11. Torquay Road formal crossing point (e.g., toucan) to link to onward route on shared use path on north side of Torquay Road and Riviera Way

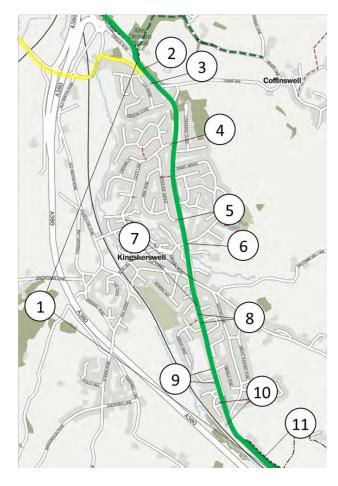


Figure 3-20 Kingskerswell & Torbay route - southern section



Green infra opportunities

 Additional tree planting along the route and smallscale public realm improvements on Torquay Road/Newton Road



WOLBOROUGH

This route aims to provide high quality cycling and walking links from the Wolborough residential development (NA3) to the north. The existing routes are not suitable for All Ages and Abilities, with sections of route and crossings missing making it difficult to navigate and discouraging people from choosing to cycle or walk, in future, the NA3 development to the south could increase motor traffic volumes in this area, potentially further reducing the attractiveness for cycling and walking.

There are several desire lines to the north of the area, connecting Kingskerswell Road and the new NA3 Wolborough development site to the south to Penn Inn, Newton Abbot railway station, and the town centre. There is a need to consider the purple shaded area on the map as a whole, improving provision across the entire area.

These improvements will:

- Deliver easy cycling and walking access from the proposed development for everyday journeys;
- Provide a more coherent connection from the Wolborough and Decoy areas to Kingskerswell and Torquay; and,
- Improve links to Decoy Community Primary School and Abbotsbury School
 In addition to the core routes, several additional desire lines have been identified in this area.
 This includes:
- The potential for new cycle links within Decoy Park to provide connections between the NA3 development and the town centre. Further work would be needed to identify suitable routes, taking into consideration the hilly topography of this area, existing uses for walking, and wildlife protection and enhancement.
- A link between Milber/Aller Park and Decoy, overcoming the severance caused by the rail line and A380. Further work would be needed to confirm the technical feasibility of a bridge in this location and potential onward connections. If a scheme is identified, it would require significant external funding and buy-in from affected stakeholders making delivery a longterm ambition.

The following pages detail the recommended improvements needed to deliver this route. The route has been split into two sections – from Newton Abbot railway station to the Decoy Road/Kingskerswell Road roundabout, and Aller Road and Kingskerswell.

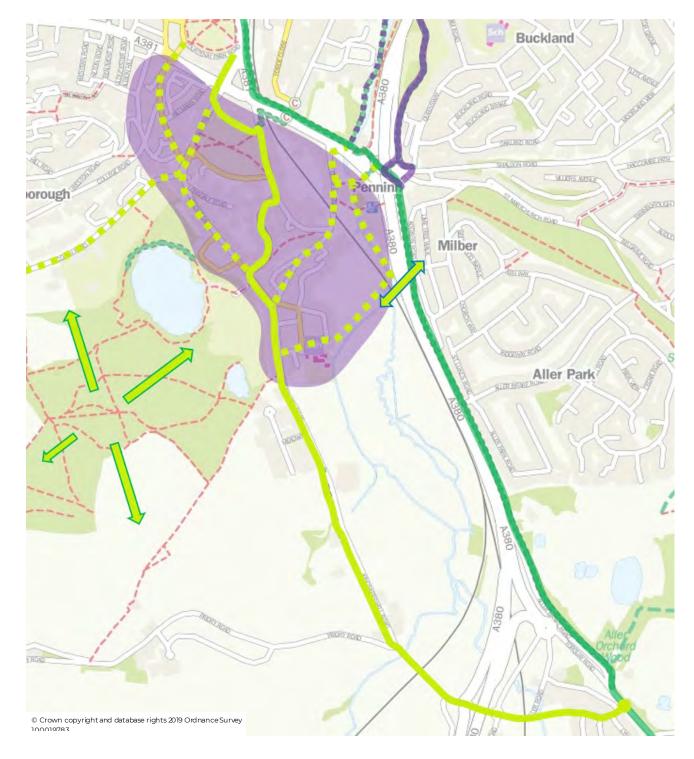


Figure 3-21 Proposed improvements at Wolborough route



WOLBOROUGH

Section 1: North towards town centre, station, and Brunel Industrial Estate

This section aims to provide improved connections between the town centre, Decoy, and new development to the south. There are a range of desire lines in this area depending on people's exact origins and destinations. An area wide approach is needed, and we recommend this area is taken forward as a "Liveable Neighbourhood" – subject to forthcoming Government guidance, consultation and local consent. Detailed traffic surveys and community engagement will be needed to develop proposals, which will also need to take into account potential increases in motor traffic through this area due to the NA3 development to the south. A range of potential improvements should be considered in more detail. The most transformative could be to create a modal filter immediately north of Decoy Industrial Estate at point (A) on the map. This would remove all north-south through traffic from the area, significantly improving conditions for cycling and walking and creating a more attractive place to live, work, and play. However, the impact on the surrounding road network, along with access and servicing implications would need to be carefully considered. Extensive engagement with the local community would be needed to develop these proposals further.

The recommendations for this section will need to be further developed as part of a holistic approach to the area, and include:

- A. Explore potential for a modal filter north of Decoy Industrial Estate to remove through traffic from the area.
- 1. Church Road, Forde Park (E), Forde Park (W) There is a need for at least one additional signal-controlled walking and cycling crossing of the A381 Torquay Road, particularly with large scale new development to the south. Forde Park (W) appears to be the most suitable, however, further detailed work and stakeholder feedback is needed to identify the most suitable location(s). The choice of crossing point(s) will influence the onward connections needed.
- 2. Courtlands Road Create new cycle path (shared use or segregated) linking to potential new crossing of Torquay Road.
- 3. Torquay Road Replace closed cycling and walking bridge over railway line and widen path at existing toucan crossing.
- 4. Forde Park (W) Cycle contraflow at northern section by either shared use path or on-street mandatory lane.
- 5. Forde Park (E) and Keyberry Park Cycle contraflow by either shared use path or on-street mandatory lane on Forde Park (E). Consider a modal filter on Keyberry Park.
- 6. Coach Road Consider measures to reduce through traffic.

- 7. Decoy Road Traffic calming and environmental enhancement to make on-street cycling more attractive, with potential to provide off-road provision linking to Keyberry Park at the southern end.
- 8. Decoy Road Redesign roundabout reclaiming space to improve environment and improve cycling and walking provision.
- 9. Keyberry Road Traffic calming to make on-street cycling more attractive, particularly under railway bridge.
- 10. Direct and coherent off-road link through Sainsbury's car park to subway at Penn Inn Roundabout.
- 11. There could be potential to provide an alternative off-road route to Keyberry Road, following the route of Ford Leat and Aller Brook, making use of the existing very large culvert under the rail line. The route is currently inaccessible to the public and further investigation with agreement of the relevant landowners would be needed to confirm the feasibility of this route. A modal filter at point A would likely remove the need for this route as Keyberry Road would become more attractive for cycling and walking.



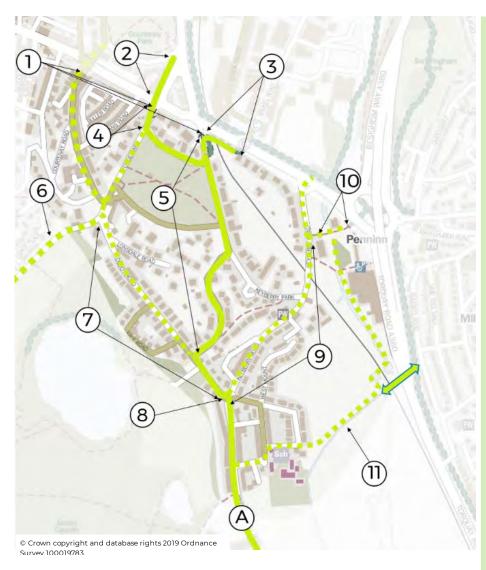


Figure 3-22 Section 1: North towards town centre, station, and Brunel Industrial Estate

Green infrastructure opportunities

- Additional planting on Decoy Road and as part of Decoy Road / Keyberry Road roundabout redesign
- Incorporate greening in modal filters
- Landscaping and greening as part of recommendati on 11



Section 2: South towards Kingskerswell

This section comprises a more linear route, connecting Decoy Road to Torquay Road, and making use of existing off-road cycle provision between Decoy Industrial Estate and Priory Road. The recommended improvements are:

- 1. Kingskerswell Road. Traffic calming and environmental enhancement options to make on-road cycling more attractive.
- 2. Kingskerswell Road at Industrial Estate Continue existing 3m minimum width shared use provision by widening into verge and reclaiming carriageway space where necessary
- 3. New road bridge or cycling and walking bridge creating traffic-free link over railway. At present there is shuttle working for general traffic over this bridge, with no dedicated footway provision. The current design encourages people cycling to wait at the lights in-front of general traffic, and then try to stay ahead of them over the bridge once the lights change. Overall, this is currently a poor level of provision and not suitable for All Ages and Abilities.
- 4. Route continuity improvements to make route more intuitive and coherent, including signage, small amounts of widening and minor crossing improvements.
- 5. Modal filter on Aller Road and link through new development to Moorpark Road. Scheme has already been designed by Devon County Council.

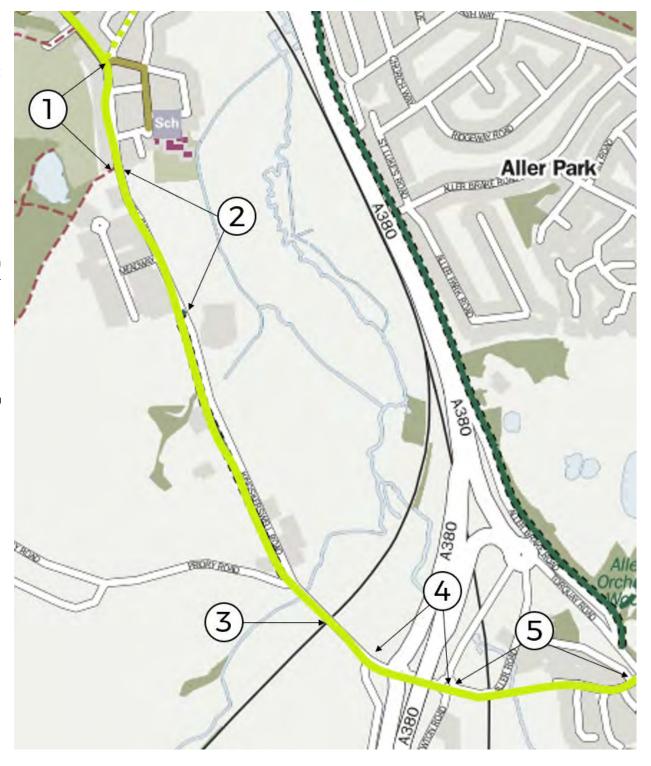


Figure 3-23 Section 2: South towards Kingskerswell





Figure 3-24 Existing and Proposed route at Buckland and Milber



Image source: Newton Abbot Bridge Access Planning Approval (https://planning.devon.gov.uk/PlanDisp.aspx?AppNo=DCC/4104/2018)

BUCKLAND AND MILBER

The Buckland and Milber recommendations focus on upgrading the existing routes between the town centre, railway station, Brunel Industrial Estate, and residential areas of Buckland and Milber. The existing route is indirect, unclear, and made up of a number of sections of substandard provision. There is limited lighting, meaning the area has poor perceptions of safety.

These recommended improvements will:

- Improve walking and cycling accessibility to the main employment area of Brunel Industrial Estate;
- Create cycling and walking links which are more direct, coherent, and attractive between Milber, Buckland and the town centre
- Install lighting to make routes more suitable for year-round usage
- Improve cycle connections to Haytor View Community Primary School

Developing clear, comfortable, and safe routes will open up connections between Newton Abbot railway station and the town centre, the key employment site at Brunel, and the residential communities at Milber and Buckland. Buckland is built on a steep hill, which is challenging for all but the most able cyclist or e-bike rider. As such, the route shown terminates at the primary school, although onward connections on the relatively low traffic residential streets are possible.

There are existing proposals to create a second entrance to the railway station. An artist's impression of the new entrance is shown below. It will be important to ensure that sufficient secure cycle parking is provided at this entrance. The connecting route on Forde Close already has a modal filter, helping to create a low traffic cycle route to access the rear of the station.



BUCKLAND AND MILBER

The recommended improvements are:

- 1. Investigate scope for a direct link from Newton Abbot railway station to Quay Road parallel to the rail line.
- 2. Introduce shuttle signals at Quay Road underbridge allowing the reallocation of one traffic lane to create protected cycle track & wider footway. Works to incorporate upgraded lighting and general environmental enhancements.
- 3. New direct pedestrian and cycle link through bank connecting Quay Road to Forde Road (requires land negotiation).
- 4. Tighten junction with Quay Road and resurface approximately 220m of existing shared use path currently in poor condition.
- 5. Prohibit parking on the southern approach to Town Quay Bridge, remove staggered barriers on bridge and implement local environmental enhancement/gateway scheme.
- 6. Protected / shared use provision along Brunel Road to replace the existing on road provision.
- 7. Protected / shared use provision along Brunel Road.
- 8. Build out at junction with Collett Way to protect access and improve visibility. Environmental enhancement of path, making it more attractive.
- 9. Resurface approximately 900m of existing path and install lighting (taking into account bat sensitivities) along entire length, making route suitable for year-round usage.
- 10. Widen and upgrade approximately 650m of existing path to create minimum 3m wide shared use path with lighting. Improve surfacing of existing path including narrow section between houses. Create new ramp to connect to existing path to Sandringham Road.
- 11. Widen and upgrade approximately 260m of existing path to create 3m wide (minimum width) shared use path with lighting.
- 12. Shaldon Road / Queensway junction: Introduce improved crossing for people cycling and walking to create shorter route to Aller avoiding subway.

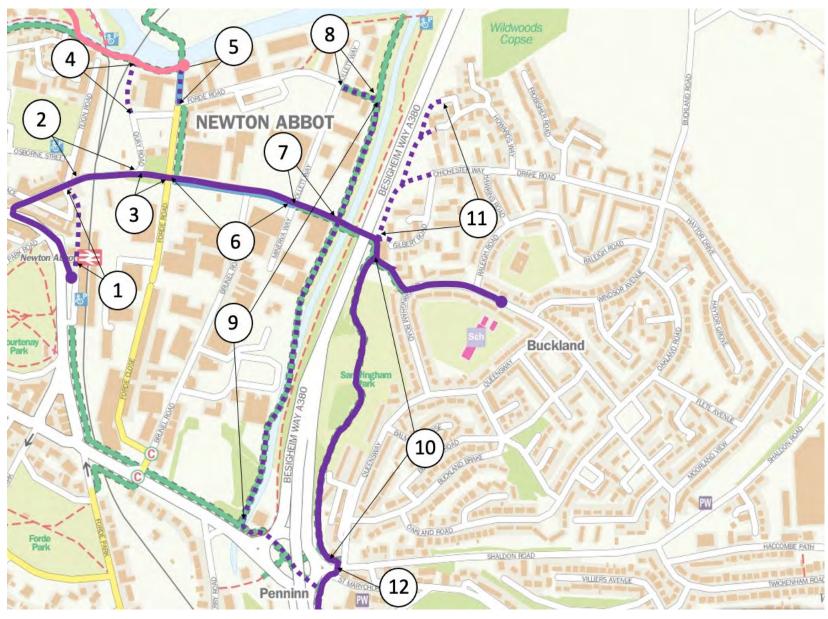


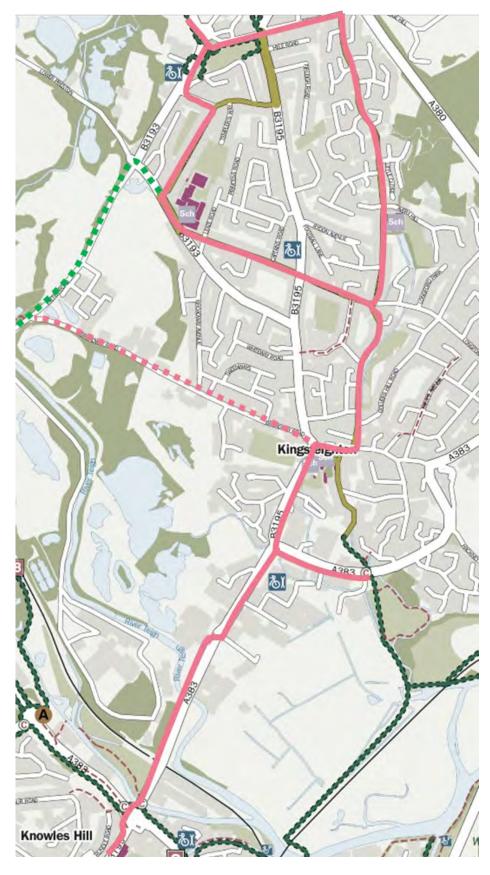
Figure 3-25 Proposed recommendations for improving Buckland and Milber route



Green infrastructure opportunities

- Planting and habitat creation in Sandringham Park, and along new, upgraded paths identified in points 9 and 11, considering heritage of the park.
- Potential for greening at Town Quay Bridge access point





KINGSTEIGNTON

The Kingsteignton routes will develop and upgrade the existing connections between Newton Abbot town centre and Sandygate through Kingsteignton town centre and create a mini network in Kingsteignton itself. The routes have the potential to:

- Better cater for well used commuter routes, with some of the highest commuter flows in the area;
- Provide improved cycling routes for local schools, including Teign School, Rydon Primary School, and St Michaels C of E Primary School; and
- Create a joined-up network for Kingsteignton, linking other existing and planned cycle routes.

The first sections of the Teign Estuary Trail to the rear of the racecourse provide an off-road connection between Kingsteignton centre and Newton Abbot town centre. The existing shared use path runs from the Brunel Industrial Estate, across the Town Quay bridge over the River Teign, and around the back of the racecourse. From here the path forks, connecting to the Passage House Inn on the Teign Estuary Trail to the east, and northwards towards Kingsteignton town centre along further section of shared use path and the quiet Church Street. However, there remains demand for the more direct route along Newton Road, and there is very little dedicated cycling infrastructure in Kingsteignton itself, with a lack of routes suitable for All Ages and Abilities.

There are committed plans to deliver improved cycle connections on the western sections of Exeter Road (shown as dotted green lines on the map), and there are off-road cycle routes to the north of Kingsteignton. There is an opportunity to join these unconnected sections of cycle route to create a more coherent local network.

The recommendations include substantial sections of shared use path on Newton Road, primarily due to highway width constraints and a lack of suitable alternative options. Footfall on these sections is low and as such the shared use proposals are compliant with Local Transport Note 1/20.

The following pages detail the proposed improvements needed to deliver this route. The route has been split into three sections - from Newton Abbot to Kingsteignton town centre, routes in east Kingsteignton and routes in west Kingsteignton.

Figure 3-26 Existing and proposed Kingsteignton cycle routes



KINGSTEIGNTON

Section 1: Newton Abbot to Kingsteignton Town Centre

This section provides a more direct connection between Newton Abbot town centre and the centre of Kingsteignton. The recommended improvements are

- 1. Kingsteignton Road There is not highway width available to cater for off-road cycling on this section and so the recommendation is to improve conditions for on-road cycling. This could be enabled by a reduction in through traffic due to changes at Highweek Street junction with Halcyon Road, 20mph limits, and further traffic calming measures.
- 2. New signalised crossing on Kingsteignton Road south of The Avenue, to cater for missing crossing desire line and to provide a safe connection to South Devon University Technical College. Extend and widen existing shared use path by removing one of the three northbound lanes, to link the crossings and provide a safer route.
- 3. Kingsteignton Road/Newton Road Extend shared use by widening path to 3m+ on western side of road by reducing carriageway width. A protected cycle route would be desirable but is unlikely to be feasible without additional land. Narrow junction mouth of site access and provide continuous or parallel crossing. Existing bus layby may need to be removed and replaced with an in-line stop to provide space for the shared use path.
- 4. Newton Road Construct new 3m+ shared use or protected path through narrowing carriageway and/orthrough land negotiation with adjacent businesses. Move southbound bus stop in-line. Parallel crossing of side road access to industrial area and retail area car park. There is a wider potential to convert this low density, big box retail area from a "high street for cars" to a more vibrant "high street for people". There may be potential for significant public realm improvements adjacent to retail area that could create a real focal point for Kingsteignton, subject to further consultation.
- 5. A383 Greenhill Way Roundabout parallel crossing linking proposed shared use path to existing white line segregated cycle track
- 6. A383 Greenhill Way potential to provide connecting off-road cycle path along south side of carriageway to connect existing cycle track.
- 7. Newton Road north of car park access. Continuing the shared use path further north should be explored, however, creating a town centre gateway and traffic calmed high street, including 20mph, continuous footway crossings of side roads and accesses, and public realm improvements on this section may be a more suitable option due to limited highway width and the overall function of this section as a high street.

Green infrastructure opportunities

- Tree planting and greening along Newton Road, linked to recommended public realm improvements
- Additional greening linked to public realm improvements identified in point 7.

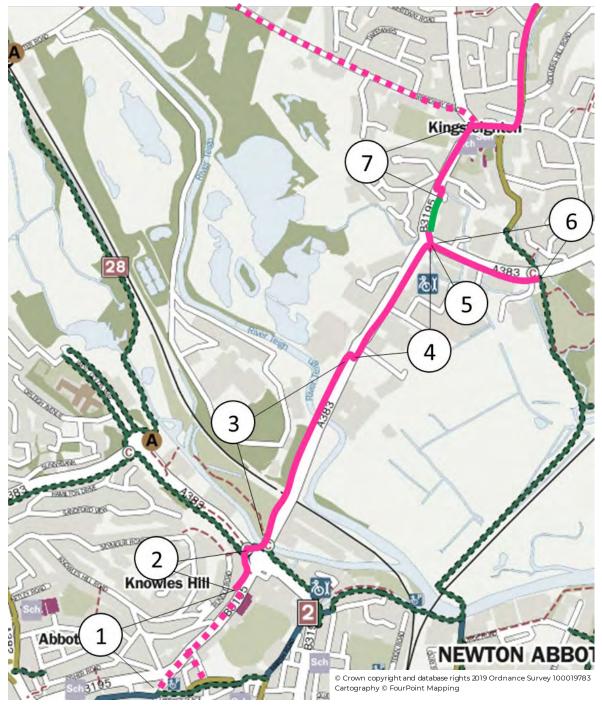


Figure 3-27 Kingsteignton route Section 1: Newton Abbot to Kingsteignton Town Centre



KINGSTEIGNTON

Section 2: East Kingsteignton

Within Kingsteignton itself, an area wide approach is needed. The B3195 Exeter Road through the centre of the town is the primary desire line, however, the constraints on this route including narrow carriageway widths mean it would be extremely challenging to deliver an All Ages and Abilities route. As such, this section focuses on improving the existing signed and mapped route along Rydon Road in the East of Kingsteignton.

- Crossley Moor Road Consider modal filters and/or traffic calming to reduce traffic volumes, while
 maintaining local access and buses. Review/replace double-mini roundabout at northern end
 with a more cycle friendly layout. Modal filters may also be required on parallel routes to the east
 (Glovers Hill Road, Tarr's Avenue, and Blindwell Avenue) to prevent traffic diverting to these
 routes.
- 2. Rydon Road Review existing traffic calming arrangements. The current kerb narrowing, together with the traffic volumes at the start and end of the school day were observed to cause congestion after school, blocking the road for all traffic including people cycling. Review the existing traffic calming layout to ensure cycling and walking movements are not obstructed by vehicle parking. The highway width means off-road cycling infrastructure is not deliverable on this section.
- 3. Rydon Road There is a significant gradient and wider carriageways on this section. Off-road provision for people cycling uphill is likely to provide a more attractive cycle route. Construct protected space for cycling by using the existing verge, with appropriate continuous crossings of side roads, removing bus laybys, and constructing parallel at northern end linking to Lindridge Lane
- 4. Improve access to Lindridge Lane from the roundabout at Rydon Lane/Brook Way/Hestow Road by providing additional dropped kerbs and access through the south side of the existing barriers, and redesigning or removing the existing barriers.
- 5. Provide upgraded crossing on southern arm of the Lindridge Lane/Strap Lane/Exeter Road roundabout (suggest signal controlled or parallel). Consider moving toucan crossing on northern arm of the roundabout closer to the roundabout to better link to the existing routes (which could be widened) and consider converting to tiger crossing.
- 6. Strap Lane minor widening of existing shared use path to avoid the need to make a right-angled turn. Consider priority (parallel) crossings on arms of the roundabout.

Green infrastructure opportunities

 Potential for greening to be incorporated in Crossley Moor Road modal filters and traffic calming on Rydon Road

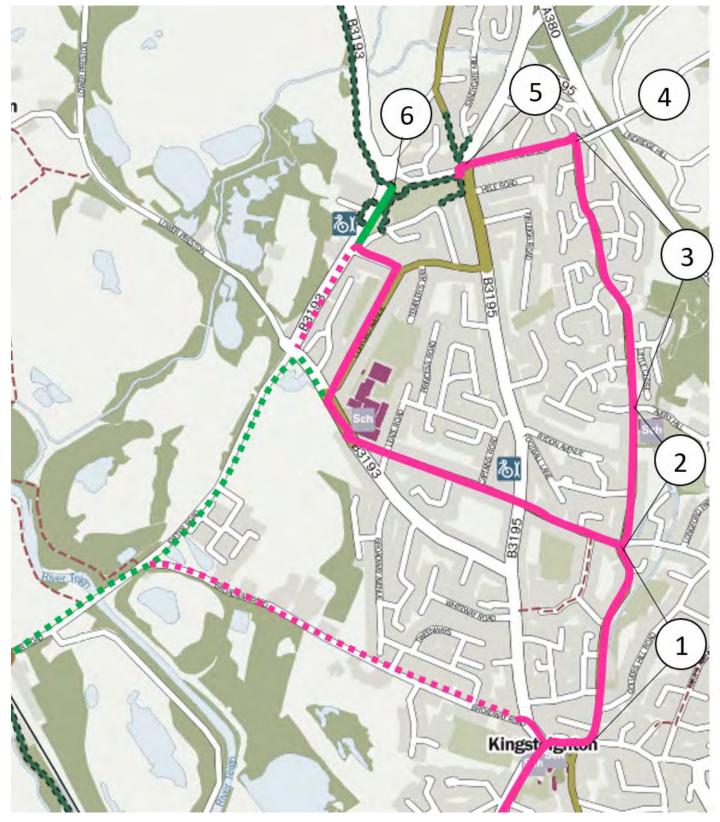


Figure 3-28 Kingsteignton route Section 2: East Kingsteignton



KINGSTEIGNTON

Section 3: West Kingsteignton

This section aims to complete the mini cycle network in the east of Kingsteignton, focusing on upgrading existing signed and mapped routes. The recommended improvements are:

- 1. Clifford Avenue junction with Abbrook Avenue tighten junction mouth to reduce motor traffic speeds and make it easier to cross for people walking.
- 2. B3193 Strap Lane explore potential for off-road cycle track on this section, likely on the western side and involving land negotiation with private landowners.
- 3. B3193 Chudleigh Road/Clifford Avenue Consider adding informal pedestrian crossing to assist people accessing for the westbound bus stop.
- 4. B3193 Chudleigh Road Consider kerb realignment to provide off-road cycle facility on northern side of the carriageway between Clifford Avenue and Ley Lane. Reduce width of junction mouth to Teign School.
- 5. Ley Lane Consider introducing a modal filter to remove through traffic and create a more attractive cycling link. Provide Advanced Stop Lines for people cycling at junction with Exeter Road.
- 6. Longford Lane review existing traffic calming layout to ensure cycling movements are not obstructed by parked vehicles. Existing cycle bypasses at road narrowing were observed to be blocked by parked cars.
- 7. The need for improved cycle provision was also identified on Broadway Road, linking to new cycle facilities being delivered as part of a development site. The route is highly constrained with limited highway width, and while modal filters could be considered this may drive more motor traffic past the Teign School and cycle routes to the north. In the short term, measures to reduce traffic speeds here could improve conditions for cycling, however, there is also the longer-term potential for a parallel offroad cycle route to the south through the former clay pit land or immediately to the south of the road.

Green infrastructure opportunities

• Potential for greening to be incorporated in modal filters on Ley Lane and traffic calming on Longford Lane

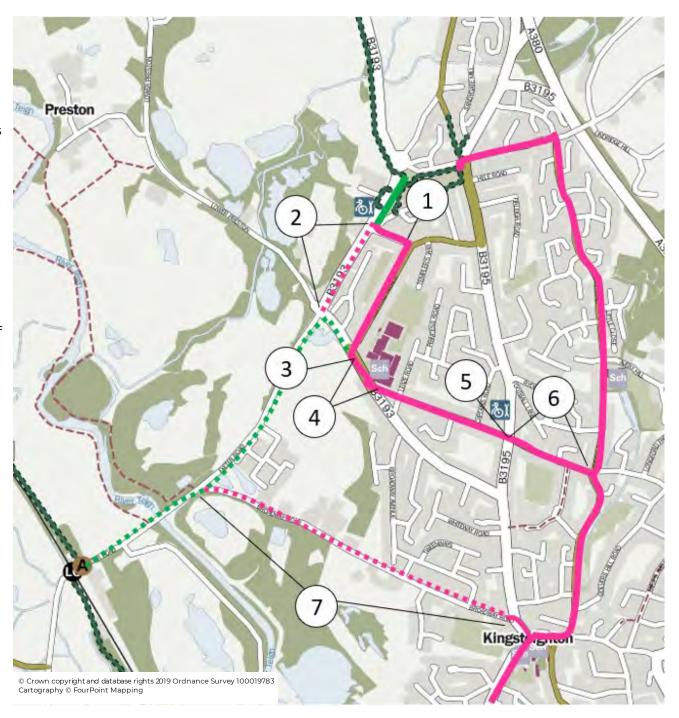


Figure 3-29 Kingsteignton route Section 3: West Kingsteignton



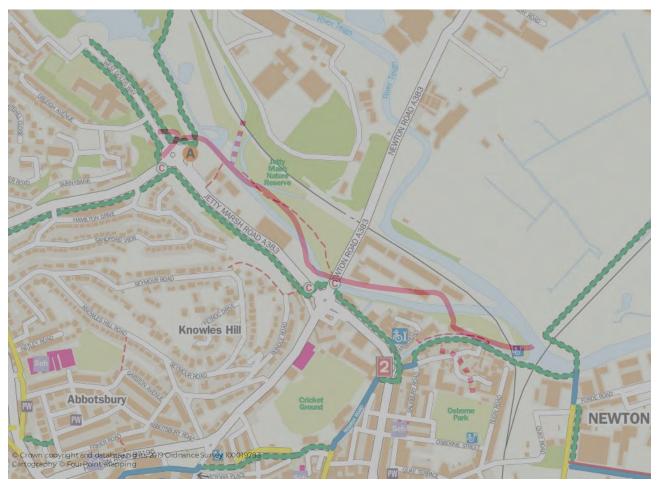


Figure 3-30 Existing and proposed cycle routes from Stover Trail link to Teign Estuary Trail

Stover Trail link to Teign Estuary Trail

This proposal will extend the Stover Trail further into Newton Abbot, connecting it to the Town Quay area and link it with the emerging Teign Estuary Trail.

The current start of the Stover Trail is not easy to find and the cycle route through the town is alongside busy roads and passes several business access points making it unattractive to some potential users. With significant investment planned to complete Teign Estuary Trail, there is an opportunity to improve the quality of the onward connections through creation of this new leisure focused route, which would continue the character and quality of the Stover Trail and Teign Estuary Trail.

The 0.6mile route will:

- Create a fully accessible off-road cycling and walking trail connection through Newton About away from traffic and connecting NCN routes 2 and 28; and
- Allow for better promotion of the Stover Trail and Wray Valley Trails to residents and visitors.

The proposed alignment currently exists as a footpath and walking link but is prone to flooding and is rutted in parts. The bridge over the River Lemon has steep steps and is therefore not suitable for All Ages and Abilities, restricting access to people cycling. This is a real opportunity to create a high-quality link through the middle of Newton Abbot. This would complement the active travel connections of the emerging phase of the A382 improvements, which will link into a new link road (Jetty Marsh 2).



KINGSTEIGNTON

Section 4: Stover Trail link to Teign Estuary Trail

These proposals focus on delivering a new accessible cycling and walking connection from the Stover Trail to Town Quay area and the emerging Teign Estuary Trail. The proposal would continue the character and quality of the Stover Trail and Teign Estuary Trail, providing an attractive alternative to Jetty Marsh Road away from busy roads.

- 1. Improve access to the Stover Trail with:
 - Gateway feature to raise profile of route to anyone passing
 - Widen path or new alignment on approach
 - Dedicated signal crossing of Jetty Marsh Road (existing proposals approved by councillors)
- 2. Widen existing footpath (Newton Abbot Footpath 29) through Jetty Marsh Nature Reserve to enable shared use (approx. 550m), minimum width 3m. May require some localised narrowing and barrier removal. Careful design to avoid conflicts and use of permeable surfacing will be required in this sensitive area.
- 3. Investigate scope to enable people cycling to use the existing footpath link from Jetty Marsh Nature Reserve to Sibleco site. Upgrade/widen boardwalk section to enable use by people cycling and walking.
- 4. Upgrade existing path alongside Whitelake Channel to shared use, 3m minimum width (approx., 350m). Remove/redesign barriers at Newton Road roundabout to enable all cycle designs to easily use the route.
- 5. Surface existing footpath along the desire line across the open space, creating shared use link, minimum 3m (approx. 70m) to existing footbridge over the River Lemon.
- 6. Construct new bridge over River Lemon for people cycling and walking connecting to existing town cycling network and Town Quay Bridge.
- 7. As alternative to 6, work with Network Rail to investigate the potential for people cycling and walking to use the existing Heathfield rail bridge.

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Figure 3-31 Kingsteignton route Section 4: Stover Trail link to Teign Estuary Trail

Green infrastructure opportunities

 Potential for additional habitat creation and enhancement throughout the route including in the Jetty Marsh Nature Reserve



4 NETWORK PLANNING FOR WALKING

INTRODUCTION

The majority of existing roads within the Heart of Teignbridge 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 a still a need to continuously improve conditions for walking, helping to unlock increased walking rates within the Heart of Teignbridge area.

Walking habits around the study area vary, with less than 5% of residents in some neighbourhoods walking to work and between 20-25% of residents in some central locations walking to work (see Figure 4.1). The highest levels of walking to work in the study area are within Newton Abbot town centre, with up to 25% of employed residents walking to work from some areas. Around the town centre area south of the River Teign, across the river from Brunel Industrial estate and round Decoy Park most areas achieve at least a 10% rate of walking to work. However, in most parts of Kingsteignton, Highweek, Milber, Kingskerswell and Wolborough less than 1 in 10 commuters walk to work.

As set out in this section, key improvements for walking have been identified around the key development areas identified in the Local Plan,

CURRENT & 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 section 3, and Figure 4.2 on the following page shows these origins and destinations.

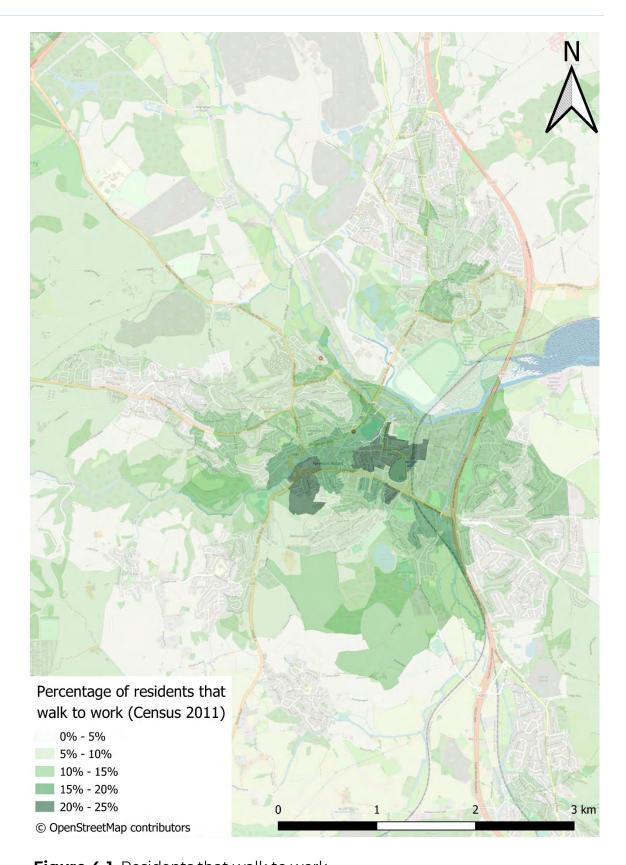


Figure 4-1. Residents that walk to work



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.

As shown by the green boundary in Figure 4.2, many of the origins and destinations identified in the study area are within 400m of each other, meaning there are no clearly defined discrete core walking zones. This is due in part to the amounts of mixed-use and residential developments being constructed to the south and west of Newton Abbot, as well as the proximity between the three main towns within the Heart of Teignbridge study area.

Based on the findings of the policy review, and considering potential funding sources, Core Walking Zones covering Newton Abbot town centre and the two largest strategic site allocations in the adopted Local Plan (Land at Houghton Barton and Wolborough) and were identified as the top priorities for improving walking networks.

This reflects the recognition in policy of the need to improve the town centres and the developer funding opportunities available. The LCWIP presents an opportunity to support existing walking proposals set in the Newton Abbot town centre masterplan and FHSF, as well as secure better walking infrastructure in the strategic site allocations. The town centre regeneration is likely to attract significant public and private sector funding, some of which should be used to improve walking routes and the public realm.

IDENTIFYING & AUDITING KEY WALKING ROUTES

An important part of the process is to audit the existing walking infrastructure to determine where improvements are needed. 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 audit process identified small-scale measures such as improved crossing facilities, as well as larger walking and public realm schemes.

As with the cycle routes, the walking recommendations are at a very early stage of development and further design (including Road Safety audits where appropriate), engagement, and consultation with the local community will be needed as each of the schemes progresses.

A comprehensive pedestrian signage and wayfinding scheme is also recommended to help visitors, locals, and new residents.

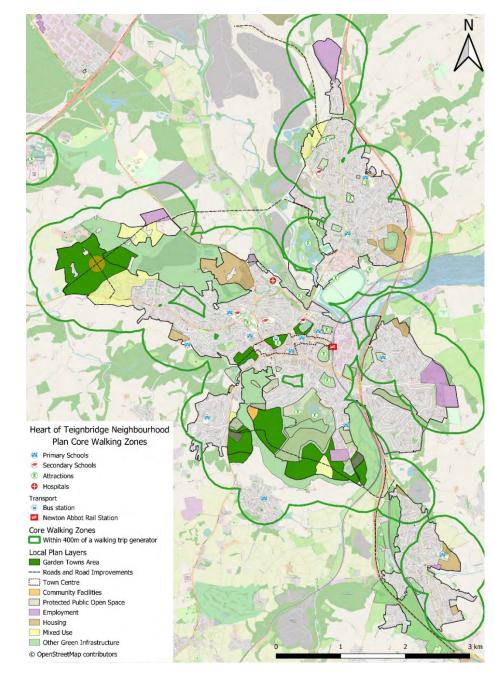


Figure 4-2. Origins, Destinations, and Core Walking Zones



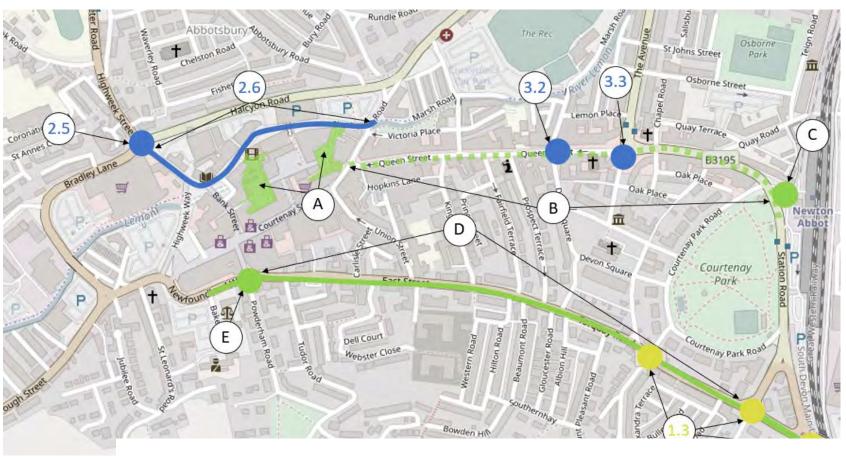
TOWN CENTRE

The town centre cycling route improvements identified in section 3 contain several proposals for walking improvements, and these are shown again here for completeness. This includes the wider area approach to continue to remove through traffic from the area within the inner ring road to help make the town centre more attractive for walking and cycling.

The walking audit identified additional issues and improvements.

- A. Market Walk shopping centre service yards As identified in the Newton Abbot Town Centre Masterplan, the quality of the pedestrian routes through the service yards is poor. As part of wider development proposals there is an opportunity to significantly improve the public realm and walking environment in these areas.
- B. Queen Street implement Future High Streets Fund scheme, incorporating wider footways, public realm improvements and reduced dominance of motor vehicles.
- C. Station Entrance There is potential for a greater public realm enhancement at the front of the rail station, creating a more walking and cycling friendly area. This could be explored further with the station operator.
- D. East Street The A381 East Street Stage 1 Road Safety Audit (Nov 2020) identifies a series of small-scale improvements to East Street, which should be progressed. In addition, our audit identified broken up and poor-quality surfacing along sections the route. The majority of side road crossings have missing tactile surfaces that should be in place to help visually impaired pedestrians. In addition, there is an opportunity to narrow a number of junction mouths along the route to make crossing for pedestrians easier, including Union Street, Fairfield Terrace, Gloucester Road, both Devon Square side roads, and Church Road. There is also an opportunity for limited footway widening on Union Street outside Wolborough School to help improve walking routes to the school.
- E. East Street Potential to add a signalised pedestrian crossing at the Powderham Road junction, to cater for north-south walking trips to and from the town centre

A number of walking improvements have already been identified in section 3, including:



© OpenStreetMap contributors **Figure 4-3** Town centre walking route improvements

Town Centre

2.5 Highweek Street/Halcyon Road junction – simplify junction to provide improve cycling and walking facilities. This should aim to significantly improve north-south pedestrian crossing facilities, with an aspiration to enable pedestrians to cross without waiting in the middle of the junction.

2.6 Highweek Street (south of Halcyon Road), Market Street, and Sherbourne Road – Potential for public realm improvements. This includes the transformation of Sherbourne Road as outlined in the Newton Abbot town centre masterplan, and also a smaller scale opportunity to improve the public realm in-front of the cinema.

3.2 Queen St junction with Lemon Road – Stop-up Lemon Road at its southern end and provide a crossing point to Devon Square.

3.3 The Avenue junction with Queen Street – New crossing of Queen Street. Potential for a public realm scheme around the war memorial, removing traffic and parking from the northern end of St Paul's Road, to provide enhanced public space.

Wolborough

1.3 Identifies the need for one or more additional signalised crossing points on Torquay Road to cater for north-south movements, which will increase with the development at NA3 Wolborough. The most likely option being Forde Park (West) and/or Church Road and Forde Park (East)

Green infrastructure opportunities

Greening and "parklets" in service yards and throughout the town centre. The service yard to the West could become a quiet park, offering an escape from the bustle of the town centre, incorporating shared surfacing for use by delivery vehicles.

Potential for greening and "green walls" as part of key improvements including on Sherbourne Road and rail station forecourt



CASE STUDY: SUNDAY STREETS

Sunday Streets originated in Bogota, Columbia as "Ciclovia", a day of free, healthy activities that promote community in public streets. The concept has now spread around the world, with Bristol City Council among local authorities organising a series of "Make Sunday Special" events to showcase the area and encourage footfall.

With motor traffic removed, the open city centre streets gave local people the chance to get together and relax with family and friends, try out new sports and games, or simply enjoy the carnival atmosphere.

Activities included outdoor choirs, children's superhero costume workshop, sports sessions, dancing and drumming demonstrations, and walkabout performances. A giant waterslide down the steep hill on Park Street in the city centre made the national and international news, helping to showcase Bristol on a world stage. The local bus company introduced a discounted family ticket for the events to help people travel sustainably to the centre. Local groups could also apply for a maximum of £3,000 funding for neighbourhood events outside of the city centre.







Part time pedestrianisation for events

Following the peak of the covid crisis, which has accelerated the shift to online shopping, our town centres need support now more than ever. Events like Make Sunday Special could be used to help bring people back to local shopping areas, help local retailers recover from the crisis, and showcase the benefits of increased pedestrianisation in central areas.

These events could be enabled by temporary pedestrianisation of the area shown below, encompassing Queen Street, Courtenay Street, and Union Street (see Figure 4.4). This would maintain access to the surrounding area, and would enable the temporary creation of pedestrian spaces, including a pedestrianised town square at the junction on Courtenay Street and Queen Street.



Figure 4-4. Indicative extent of possible part time pedestrianisation for events

CASE STUDY: WALKING AND CYCLING IN NEW DEVELOPMENTS

To respond to an increasing population and the housing crisis, there is a need to build more homes both locally and nationally. Government housing targets equate to the need to build 760 across Teignbridge homes a year between 2020-2040 (as set out in the Teignbridge Local Plan). New developments offer the opportunity to integrate active travel from the outset. However, there is also a risk that, if not properly planned, these new developments could lock communities into car dependency for years to come, exacerbating existing issues including congestion, health, air quality, and the climate crisis.

A range of best practice documents^{xii} set out key principles for encouraging walking and cycling in new developments. These include:

Reducing the need to travel

- Location: allocating sites within or adjacent to existing towns.
- Mixed-use: integrating land uses, for example, locating facilities and workplaces near to housing.
 Providing education and employment opportunities close to where people live.
- o **Increased densities:** helping to create active, vibrant communities where people are within a short walk or cycle of friends, green spaces, and facilities.

• Increasing attractiveness of sustainable travel

- o **High levels of permeability for walking and cycling:**Providing direct connections within and between developments, with the new cycle infrastructure in line with the latest LTN1/20 design guidance.
- o **High quality public transport and active travel routes:** Providing high quality direct connections
 both within and between developments, helping to
 reduce car dependency. Ideally sustainable transport
 provision should be in place before the dwellings are
 occupied.
- o **Creating green and attractive spaces:** More people are likely to walk and cycle if the quality of the spaces they travel through are attractive and safe. For example, this can include creation of courtyards between buildings, public squares, vehicle restricted areas, parks & open spaces.
- o **Cycle parking and storage:** Ensuring sufficient levels of accessible cycle parking and storage are provided

through the use of cycle parking standards for new developments.

Managing parking & car use

Parking standards for new developments:

Including specifying a maximum number of parking spaces for non-residential development, to help manage car use. Avoiding overprovision of parking through minimum parking standards that are set too high for residential development, which can work against wider objectives to increasing development densities. The use of unallocated on-street parking can help to reduce the overall need for parking spaces compared to allocated off-street parking such as driveways.

Goldsmith Street, Norwich

The Goldsmith Street social housing development won the RIBA Stirling Prize 2019. It comprises just over a hundred dwellings built to PassiveHaus standards, laid out across a series of terraced blocks. There is just 14 meters between the blocks forming the street, enabled by careful design of the windows to avoid overlooking. This layout helps create a very dense, but pleasant development^{xiii}.

Provision for parking was pushed to the perimeter, so the streets feel safe and "owned" by pedestrians rather than cars. Bin stores were thoughtfully used in front gardens to create buffer zones between the public footpath and front doors. The "back street" has gardens and a pathway down the centre that has been fully landscaped, providing an attractive informal play space for children.





Image source: https://www.architecture.com



NAI HOUGHTON BARTON STRATEGIC SITE ALLOCATION

The proposals for NA1 Houghton Barton in the SPD and outline planning application have been reviewed from a walking and cycling perspective. The highway design for the NA1 Link Road should be reviewed to ensure compliance with LTN 1/20, particularly in relation to treatment at junctions and side roads.

Strategic links

A number of "missing" walking and cycling links were identified that would increase the overall permeability of the development, including:

- 1) From existing Hele Park development to Neighbourhood Hub
- 2) Through from Hele Park Estate to Howton Road
- 3) From Hele Park development to Howton Road
- 5) From existing Hele Park development to Howton Road
- **4)** Consider modal filter on Howton Road. This is a narrow country lane with little scope for widening identified as 'indicative cycle / pedestrian route' on the SPD plan. Option to introduce modal filter prior to occupation of dwellings at the strategic site in engagement with existing residents. The two development parcels on Howton Lane also have scope to create a modal filter.
- **6)** Extension of cycle track for approximately 1km west along the A383 to Mill Cross. West of this point quiet lanes can be used to reach Bickington and Ashburton on the 'Marble Way'. Initial reviews indicate there may be the potential to provide within the existing wide verge.
- **7)** The most direct walking and cycling link to the Stover Trail from strategic site allocation NA1 is via Staplehill Road, crossing the A382 at Forches Cross (where a new bridge for people cycling and walking forms part of the A382 realignment proposals). East of the A382 this would follow Greycoat Lane and then join the trail at Teigngrace Lock. Options include;
 - Dedicated cycling and walking infrastructure along Staplehill Road to the Forches Cross junction; or,
 - A modal filter on Staplehill Road beyond the access for Plants Galore or at the junction with Perry Lane to create a quiet lane link.
- **8)** Greycoat Lane: depending on volumes of traffic and access requirements there may be a need / scope for a modal filter (beyond the school and playing fields) to prevent through movements by motor vehicles and create a quiet link to and from the Stover Trail.

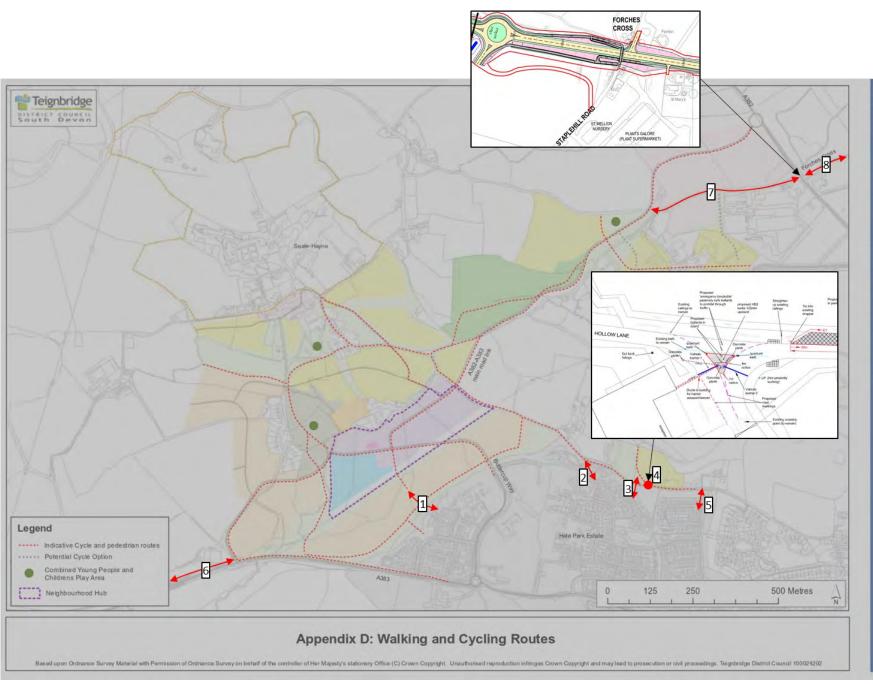


Figure 4-5 Proposals for NA1 Houghton Barton in the SPD and outline planning application



Internal network

The proposed road, cycle and footpath network within the strategic site allocation was also reviewed, and recommendations made for further improvements to increase active travel connectivity. However, the following comments do not endorse the depicted current planning application.

The overall layout could potentially be improved from an active travel perspective, with streets radiating from the local centre to provide direct connections. Specific opportunities within the proposed layout include:

- 1 Resurface Howton Road to provide a more comfortable cycling and walking route (see next page for further recommendations).
- 2 Possible school site access from to create a more direct access from the south/south west of the strategic site.
- 3 Additional walking and cycling access point for more direct route
- 4 Confirm access assuming it will be dropped kerb to allow for people cycling
- 5 Possible additional access to local centre for people walking and cycling
- 6 Link up two cul-de-sacs to improve cycle access heading north-south
- 7 Confirm proposals for this route and the crossing arrangements, ensuring compliance with LTN 1/20.
- 8 Extend shared use on either side to help avoid crossing multiple junctions. This is a key link through the development and a protected cycle route rather than shared use path could be considered.
- 9 Extend shared use on either side to help avoid crossing multiple neighbouring junctions?
- 10 Extend the East-West shared use route along Ashburton Road to tie in with the existing proposals on the southern side of the carriageway.
- 11 Ensure pedestrian priority crossings
- 12 Ensure dropped kerbs allow access to and from main cycle route from residential development
- 13 There is potential for future development on the adjacent site. The walking and cycling links should be future proofed to provide onward connections.
- 14 Consider more direct alternative route as shown on map

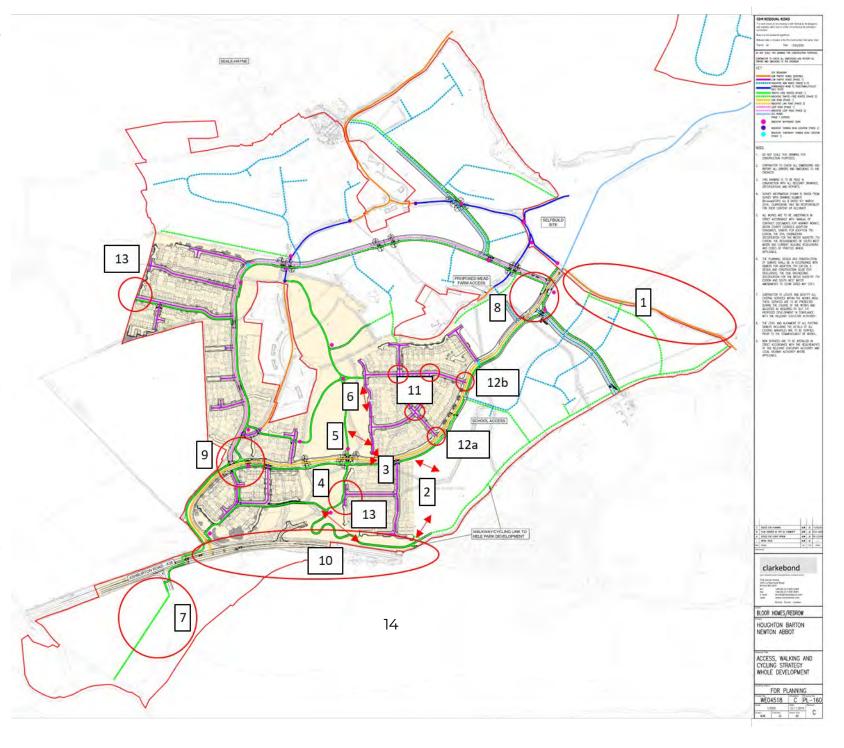


Figure 4-6 Proposals for internal roads within NA1 Houghton Barton



Howton Road walking and cycling route

Howton Road has been identified in the SPD as a key cycling and walking link from Houghton Barton to the rest of Newton Abbot. A review of this route was undertaken to identify possible improvements to create a safer, more legible, and attractive route.

A modal filter on Howton Rd is strongly recommended to create a more pleasant walking and cycling link. Lighting and resurfacing of this route could also be explored to improve conditions for walking and cycling. It is understood the route experiences occasional flooding and drainage issues may also need to be addressed.

Walking routes through Highweek Village and Coombeshead Road could be improved by narrowing junction mouths and improving pedestrian crossing facilities. A more consistent and suitable standard of footway provision could be created on the southern side of the carriageway, with a limited amount of footway widening. These improvements would benefit the local community and provide improved walking connections to local schools.



Figure 4-7 Howton Road walking and cycling route



NA3 WOLBOROUGH STRATEGIC SITE ALLOCATION

A review was undertaken of the walking and cycling connectivity proposals for this strategic development site contained in the NA3 Wolborough Masterplan Revised Draft 2019. Outline planning permission for NA3 was granted by the Secretary of State in June 2020, with 'reserved matters' to be submitted by the developers including full details of layout and design.

The proposed Wolborough link road will need to be reviewed to ensure compliance with LTN 1/20, particularly in relation to treatment at junctions and side roads.

A number of additional recommendations, over and above the walking and cycling proposals in the Masterplan, and areas for further investigation are outlined below.

- 1. Church Road was recommended cycle route in the SPD. It is a slightly hillier option than Forde Road with challenging crossing of Torquay Road but could provide a useful connection to Courtenay Park Road and the town centre.
- 2. Forde Park may provide a more level and intuitive option than Church Road and could also be popular route to station.
- 3. Coach Road recommend traffic calming/reduction is in place prior to occupation of dwellings at the strategic site.
- 4. Decoy BMX facility is a big attraction locally and from across the area. The strategic site proposals should recognise this and aim to improve cycle access
- 5. Limited opportunities to head towards Penn Inn due to Keyberry Road being busy and narrow
- 6. No current clear link through Sainsbury's car park to Penn Inn underpass
- 7. Long standing aspiration discussed during engagement for link across railway line and A380 to Milber. Not progressed as part of SDLR due to engineering challenges and likely cost.
- 8. Historical aspiration for walking & cycling link adjacent to Aller Brook.
- 9. East west desire link from strategic site through Decoy towards other proposed links should be upgraded to provide for people cycling.
- 10. Link north from development parcel through Decoy should be investigated. May not be feasible due to gradients.
- 11. Link north through Decoy to connect to BMX facility. May not be feasible due to gradients.
- 12. Potential scope for circular family-friendly cycling and walking adventure / discovery trails based on the approach used at Haldon Forest Park
- 13. Add walking and cycling links between development parcels
- 14. New parallel cycling and walking bridge needed as previously identified in the cycling section.

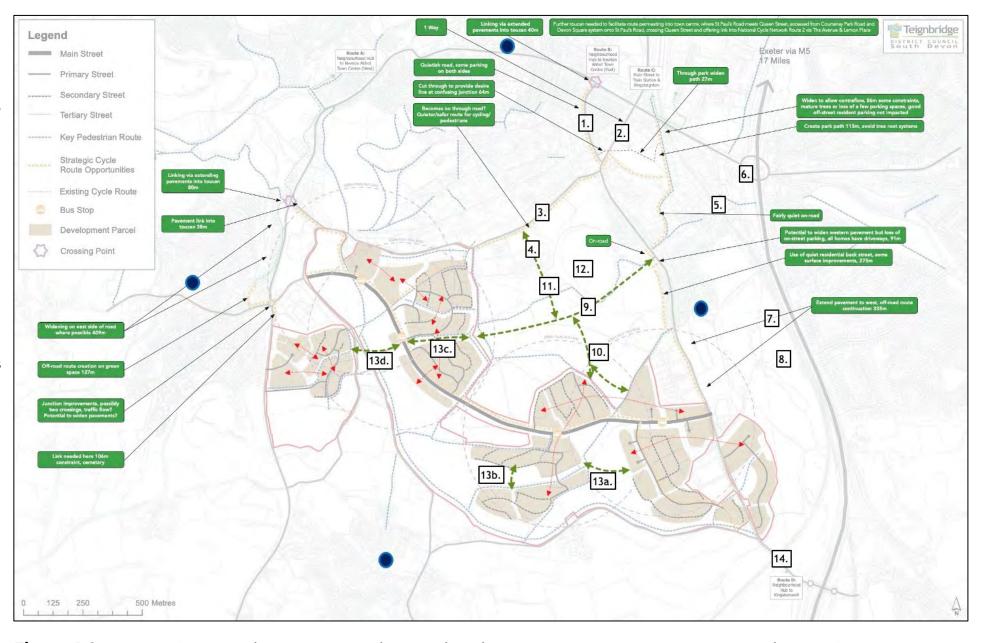


Figure 4-8 Proposals for strategic development site contained in the NA3 Wolborough Masterplan Revised Draft 2019

Red lines indicate other walking and cycling (only) links currently not identified between developments

Primary Schools are indicated in blue on plans

No walking and cycling links to existing schools shown



5 COMPLEMENTARY SCHEMES

INTRODUCTION

A number of areas for further work have also been identified including a wayfinding review, improvements to the Stover Trail, and parking review.

WAYFINDING SCHEME

Our site visits identified an inconsistent approach to signage and wayfinding on existing cycle routes and strategic trails. Developing a consistent approach to wayfinding in the area, incorporating signage, mapping, and small-scale improvements would all help to create a more coherent and legible network.

STOVER TRAIL IMPROVEMENTS

While the core routes considered did not include the Stover Trail due to the relatively high quality of this route, and as such is a lower priority for receiving improvements, the Stover Trail would benefit from a number of smaller scale improvements including:

- Signage and wayfinding review, addressing inconsistent signage along the route
- Creating additional places along the route to stop, rest, and play. This could also include opportunities for education, or public art.
- Improvement to crossing point on Exeter Road (scheme being progressed)
- Surfacing of the short section of unmade path south of Exeter Road
- Creation of Gateway features to help promote the route and make it more visible to passers by

PARKING REVIEW

Our site visits identified that much of the street scene in the centre of Newton Abbot is dominated by parked cars, with parked cars filling almost every available public space. There are a number of issues coming together that will impact on town centre parking, including:

- Dominance of on-street parking on the street scene
- Redevelopment of the Halcyon Road Car Park
- Underutilisation of the multi-storey car park

- Proposals to provide a decked parking area at the Cricketfield Car Park
- Planned residential and employment growth in the area, changing retail habits and the potential long-term change to home and flexible working, that will change parking demands
- New development sites with no guidance on parking standards

As such, there is an opportunity for Devon County Council and Teignbridge District Council to undertake a holistic review of parking in the town centre. This would need to balance the need to provide parking to support the local economy with the aims of encouraging a shift to healthier and more sustainable forms of transport, as well as identifying opportunities to improve the public realm through relocation of parking spaces.





CASE STUDY: SCHOOL STREETS

A School Street is where a road outside a school temporarily closes to motor vehicles at specific times of day. This opens streets to families on foot, cycle or scooter at school drop off and pick up times. Bradley Barton Primary in Newton Abbot was the first trial of the School Streets approach in Devon in September 2020.

Schools can make a request to the Devon Council Road Safety team to implement a School Street. If agreed, the school is responsible for the daily installation and supervision of the closure and must implement the scheme every school day^{xiv}.





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.



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 or opportunities to link with other schemes.

Routes were prioritised by section due to the benefits of delivering a complete and coherent cycle route. The factors below were used to inform the priorities, with the results shown in Table 6.1.

- Potential increase in walking and cycling numbers
- Scheme deliverability
- Links to other schemes and projects

For ease of delivery the walking improvements have been grouped with their associated cycling improvements. It is important to note that whilst routes are prioritised, there is a need to be flexible, and there may be opportunities to bring individual scheme elements within these wider packages as opportunities arise.

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.
- Costs are presented as 2020 prices and will need to be adjusted for inflation once the delivery timescales are confirmed.
- Cost includes for preliminaries, preparation, and supervision costs.
- 44% project risk allowance included.

More detail on the cost assumptions can be found in Appendix B.

Table 6.1 Scheme Priority & Cost

Priority	Improvement	Delivery Timescale	Indicative Cost	Key Dependencies & Links			
1	Deliver planned schemes already committed, including FHSF, Bakers Park – Ogwell, and Teign Estuary Trail.	Short / Medium	n/a				
2	Progress the Stover Trail Improvements, and Parking Review	Short	n/a				
3	Town Centre – Section 1: Highweek St Junction	Medium	£1.80m	Highest impact and need			
4	Town Centre – Section 2: Town Centre East	Short / Medium	£0.85m	coherent network in centre to unlock radial routes.			
5	Town Centre – Section 3: Town Centre West	Short / Medium	£1.50m	arriodic radial rodicos.			
6	Town Centre – Walking improvements	Short / Medium	£0.40m				
7	Wolborough – connections north to town centre and Brunel	Short / Medium	£1.15m	Ensure routes / improvements place prior to development.			
8	Wolborough – connections south to Kingskerswell	Medium	£0.35m				
9	Kingskerswell and Torbay - Section 1: Newton Abbot station to Kingskerswell	Medium	£1.40m	High impact scheme, serving largest commuter flows. Links			
10	Kingskerswell and Torbay - Section 2: Kingskerswell to Torbay	Medium	£2.40m	onward connections contain the Torbay LCWIP.			
11	Kingsteignton – Section 3: West Kingsteignton	Medium	£0.35m	Serves wide population			
12	Kingsteignton – Section 2: East Kingsteignton	Medium	£1.30m	connecting two main communities.			
13	Buckland and Milber	Medium	£2.80m	Improves access to key employment area from town centre but some challenges w topography. Priority scheme Quay Road			
14	Kingsteignton – Section 1: Newton Abbot to Kingsteignton town centre	Long	£1.40m	Reinforces existing network providing a more direct link			
15	Stover Trail to Teign Estuary Trail Link	Long	£1.30m	Predominantly a leisure link. Forms part of 'spine network' the area			



The schemes outlined in this document represent over £17m investment in over 30km of high quality cycle routes, walking improvements, and public realm schemes. Combined with existing schemes in development, it would require active travel spending up to levels seen in leading countries such as the Netherlands, and leading cities in the UK.

This represents a step-change in active travel funding in the Heart of Teignbridge, 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 Heart of Teignbridge, including:

- Increased overall funding for active travel, with £2bn for cycling 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 sigificantly more benefit to society than the cost of the scheme.

Central government funding for transport is typically split into separate funding streams with specific eligibility criteria. For example, there are specific and seperate funding pots that council's can periodically submit bids to for cycling schemes, bus schemes, or road building schemes. The other main source of walking & cycling funding is from developer contributions, specifically for active travel improvements, for example, linked to housing and employment developments. This means that delivery of the proposals in the LCWIP will in most cases be reliant on funding which would otherwise not be within DCC's or TDC's control or available to use for other purposes. In addition to the proposals in the LCWIP, DCC will also be pursuing separate funding for other schemes such as the schemes contained in the emerging Devon Bus Service Improvement Plan (BSIP).

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 "Access Fund", however, ongoing funding from central government is likely to be needed to continue with these activities. Potential locations for additional cycle parking within the study area have been identified by Council officers and are shown in Figure 6.1.

Maintenance of active travel routes is also very important to encourage people to use them and maintain safety. DCC's Highway Safety Policy^{XV} sets out how the Council identifies and manages highways and active travel routes through a comprehensive system of inspection. Issues such as potholes, inappropriate parking, overgrown vegetation, and other obstructions can also be reported by the public via: devon.gov.uk/roadsandtransport/report-a-problem/

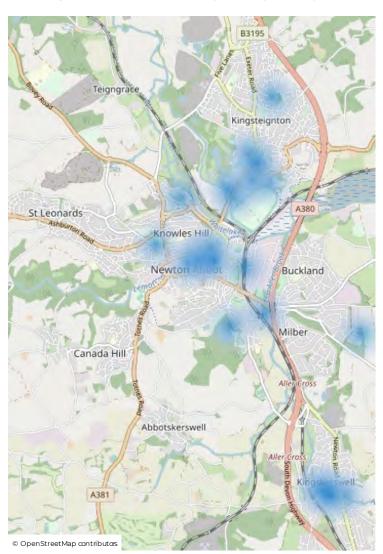


Figure 6.6-1. Potential locations for additional cycle parking

CASE STUDY: "ACCESS FUND" IN NEWTON ABBOT

The "Access Fund" from the Department for Transport helps local authorities deliver sustainable transport projects that support economic growth. Devon County Council were successful in securing funding for a number of projects across Devon.

Newton Abbot was identified as one of the focus areas for support, in recognition of the residential and employment growth in the area, and opportunities to influence the travel behaviour of new residents.

Business support delivered as part of the Access Fund includes free adult cycle confidence training, providing funding to support small scale improvements, running engagement events and campaigns to promote active travel. Personalised travel planning for employees is also offered to help identify and recommend more sustainable methods of transport.

Travel Devon runs a business toolkit, which includes a travel survey to help employers identify existing travel patterns, as well as an audit tool to help highlight areas that they can improve to further support active and sustainable travel for employees. The toolkit also provides information and resources on how to develop an effective Travel Plan.

Through the programme, local schools are also engaged through events and activities to promote cycling, walking, and scooting to and from school.

The Access Fund also provides engagement through workplace walking and cycling challenges, where businesses compete to log their activities across a month with the chance to win prizes while promoting behavioural change in the workplace. Newton Abbot was a focus area for these challenges, including some exclusive prizes for challenges such as "Cycle September" being available only to residents of the area.

Continued central government funding for similar projects in future will play an important role in ongoing promotion of



active travel in Newton Abbot and the wider Heart of Teignbridge area.



7 NEXT STEPS

INTEGRATION & 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.

Teignbridge District Council and Devon County Council are currently reviewing the Local Plan and other major local policy documents and as such this represents an excellent opportunity to fully integrate the outputs from the LCWIP in to local policy. This will help ensure that emphasis is given to cycling and walking within both local planning and transport policies, strategies, and delivery plans. Reflecting the LCWIP in local policy will also help make the case for central government funding.

The LCWIP sets out the case for future funding for cycling and walking infrastructure. As set out in the section above there are a number of compelling reasons for central government to invest in active travel infrastructure in the Heart of Teignbridge. In addition, local funding contributions are likely to be available from developer s106 and/or Community Infrastructure Levy (CIL) contributions, other bids, and potentially contributions from limited local authority budgets.

Due to the nature of local authority funding, the majority of funding is likely to come from bids central government. The future funding streams are therefore unclear, and it would be inappropriate to commit to exact delivery timescales. There will be a need to be 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.

The newly formed Active Travel England will act like Ofsted for schools, and assess local authorities' performance on active travel, with findings influencing local funding for all transport modes.

REVIEWING & UPDATING

It is envisaged that delivery of the LCWIP will need to be continuously monitored and reviewed and updated

approximately every four to five years to reflect progress made with implementation.

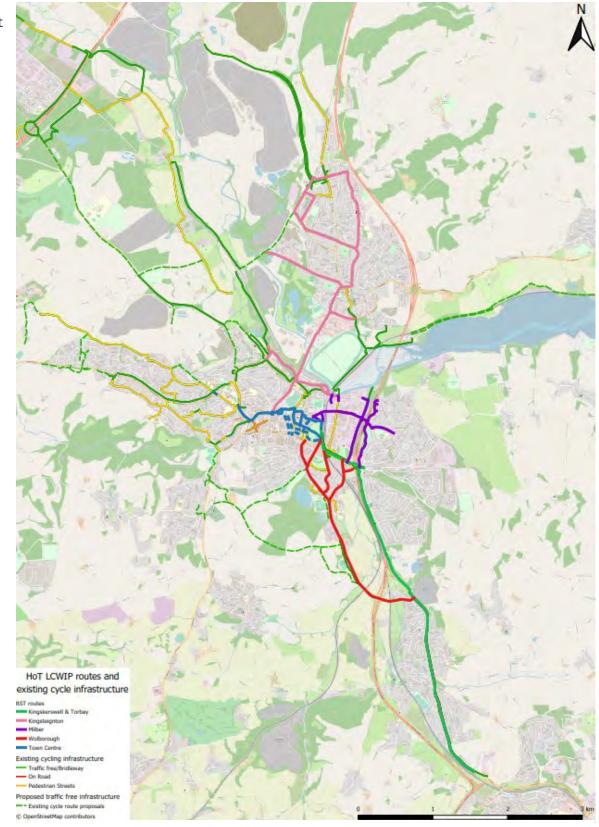


Figure 7.6-1. LCWIP routes, existing and planned cycle schemes



Ist Floor Keble House Southernhay Gardens Southernhay East Exeter Devon

wsp.com



APPENDIX A: OTHER SCHEMES CONSIDERED

INTRODUCTION

The schemes listed below were considered, but are not recommended to be progressed at this stage:

- Cycle route from Kingsteignton to Chudleigh Knighton and Chudleigh
- Park & Change
- E-Bikes
- Cycle hub

Details of the schemes and why they have not been included are outlined below.

CYCLE ROUTE FROM KINGSTEIGNTON TO CHUDLEIGH KNIGHTON AND CHUDLEIGH

Due to strong interest from local stakeholders, a high-level review of the potential for improved walking and cycling links between Kingsteignton, Chudleigh Knighton and Chudleigh has been undertaken. This route was not identified Devon County Council's 2015 Cycling and Multi-Use and Trail Network Strategy, but these community aspirations are recognised in the document and guidance will be provided to Local Planning Authorities to help with schemes could be funded through new development or future grants.

Key employment areas for Chudleigh residents include Exeter, Heathfield, Newton Abbot, and Chudleigh itself. With a resident population of 4,689 people (2011 census), only 201 residents worked in Newton Abbot or Kingsteignton. As such, potential commuter demand for a cycle route between Chudleigh and Newton Abbot is likely to be extremely low. As such, the case for a route will need to be built around other trip purposes such as education, leisure, or shopping for which an evidence base will need to be established.

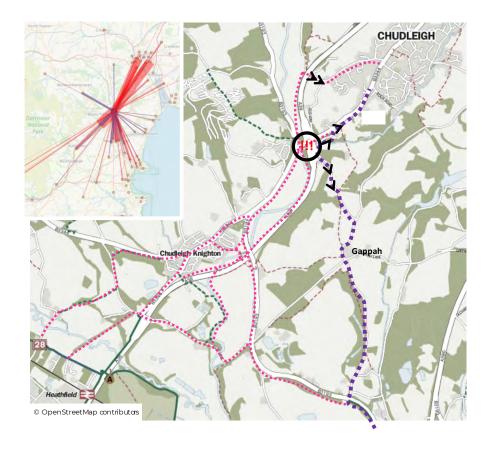
A number of options were considered to link Chudleigh Knighton and Chudleigh to Kingsteignton and the Stover Trail (NCN28) by Devon County Council in a 2015 study. Additional options have also been identified by the local community stakeholders.

In reviewing these options, it is clear that there are likely to be significant delivery and cost challenges that would need to be addressed and further feasibility work will need to be undertaken by local stakeholders. The key issues are;

- Access in to and through Chudleigh. The B3344 is a busy road that climbs quite steeply into Chudleigh (5-10% gradient). Providing high quality off-road cycling facilities would be challenging due to limited highway width and if feasible is likely to require agreement with local land owners. Alternative routing via Old Way involves a significant gradient and is not direct for trips to/from Newton Abbot.
- B3344 junction with A38. A busy junction with fast moving motor traffic accessing the Strategic Road Network and a narrow bridge over the A38.
 Engagement with (and likely funding from) Highways England would be needed to significantly improve this junction and make it safer for people cycling. Works are likely to involve significant costs, requiring signalisation and potential additional structures. An agreed solution at this junction is critical to progress a coherent scheme
- Continuing existing off-road provision adjacent to the B3193 and B3344 would create the most direct and coherent route suitable for all journey purposes. This would require significant costs as well as addressing some technical delivery challenges including a new walking and cycling bridge over the River Teign and resolving the issues mentioned above.
- Off-road route options adjacent to the River Teign, although appearing broadly deliverable would still be likely to have high costs and would deliver a route that would be less direct, but potentially more pleasant.
- A direct route between Chudleigh and the existing cycle route adjacent to the B3193 to Kingsteignton via country lanes through Gappah (purple route) already exists.
 However, it includes very challenging gradients making it unsuitable for all but the most capable cyclists.
 Although this option could feasibly be signed and slightly improved for a limited budget, it's suitability for All Ages and Abilities cycling is limited.

Recommendation

Further feasibility work could be commissioned by local stakeholders, to include a land ownership plan for different route options and early engagement with Highways England about feasibility of providing safe walking and cycling crossings at the A38 Chudleigh junction.





PARK & CHANGE

The aim of Park & Change is to reduce motor traffic in central areas by allowing people to park at a designated location and change to a more sustainable mode of travel. For example, this could include traditional bus-based Park & Ride, but can also include cycling, car sharing, or other modes of transport.

As set out previously in this report, there is an existing commitment to deliver a Park & Change site at Forches Cross to support the delivery of the Houghton Barton site. The potential for a Park & Change at this site, and other corridors in Newton Abbot were considered at a high level.

Park & Ride best practice^{xvi} identifies the key elements of a successful Park & Ride or Park & Change. These are:

- Central area parking should be restricted
- The site should be well located, easily accessed from the main approach roads
- Travel time should take less time than the car
- Transit options (e.g., bus or rail) should cost less than central area parking
- There should be high quality travel experience to the onward destination (e.g., fast, frequent, high-quality buses. High quality cycle routes)
- There should be existing demand for the journey by car

To assess the suitability for Park & Ride or Park & Change, each of the potential corridors were assessed against these criteria as shown in Table B.1.

Overall, this showed that Newton Abbot is not currently well suited to Park & Ride or Park & Change, in part due to the relatively low cost and availability of central area parking, and comparatively attractive journey times into the central area by car.

CASE STUDY: CO-BIKES EXETER

Co-bikes was the UKs first on-street electric bicycle hire scheme, operating across Exeter. Within two months of the relaunch of the scheme with updated bikes in September 2019, they saw 450 new or returning members making 1200 trips on the bikes, with 75% of the users living in Exeter.

Table B.1: Park and Change corridor assessment

Corridor/Site	Central parking restricted?		Bus frequency? (bph)	Bus travel time?	Bus faster than car?	2	Quality of cycle infra (potential future)	Cycle	Cycle travel time faster than car?	past the	Level of demand from existing trips to town centre?
A. A382 Forches Cross	No?	6-12 Min	2	6-12 min+	No	Low	Med/High	11 mins	No	9296	?
B. A383 Ashburton Road	No?	4-10 mins	4	8-10 mins+	No	Medium	Med/High	6 mins	Maybe?	6150	?
C. A381 Ogwell	No?	3-7 mins	3	8-15 mins+	No	Low	Med/High	4 mins	Maybe?	7301	?
D. A381 from Penn Inn	No?	4-10 mins	8	8-10 mins+	No	Medium	Med/High	6 mins	Maybe?	21450	?
E. A383 Longford Lane	No?	4-10 mins	1	8-10 mins+	No	Medium	Med/High	10 mins	No	7391	?

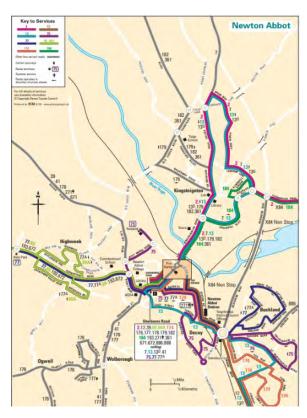
For Park & Ride services, the current lack of bus priority within the congested area of the town means that bus journeys typically take longer than by car. One way to make Park & Ride services more viable is to make use of the existing bus services to reduce the bus operating costs of the site, with a minimum frequency of 6 buses per hour recommended. However, only the A381 from Penn Inn has sufficient existing bus frequency, and all other corridors would require significant funding for additional buses to provide an attractive service.

With the committed cycle route improvements and improvements outlined in this report, the quality of cycle routes on the main corridors will improve. However, journey times by car are typically faster, limiting the attractiveness and viability of cycle-based Park & Change options.

A382 Forches Cross in particular appears to be a poor location for Park & Change. It is poorly served by existing public transport services. While the quality of connecting cycle routes will be improved, journey times by cycle to the town centre will be slower than the car and likely to be less attractive. As such, we recommend the requirement to deliver this site should be reconsidered. Future developer contributions could be reallocated to alternative, more effective, active travel measures.

The most viable corridor for Park & Change appears to be the A381 from Penn Inn. However, successful Park & Ride or Park & Change in Newton Abbot would likely require restriction of

central area parking, combined with bus priority improvements and other measures.



Source: https://devon.cc/interactive-bus-map





Plans are underway to expand to new sites across the city, including additional rail stations, new housing developments and key employment hubs. The proposal to expand the eBike network in 2018 listed 14 potential sites at a total estimated cost of £240,000, including a mix of docked sites, dockless sites and site extensions.

During the covid crisis, a number of "dockless" sites have been introduced, comprising of standard cycle parking stands painted orange and served by a co-bikes e-bike. If they are well used, these "dockless" sites could be converted to more permanent e-bike docks in future.

E-bikes, linked to infrastructure improvements, could potentially play an important role in increasing the number of people cycling in the Heart of Teignbridge.

Exeter partly depends on the presence of a complementary cocars 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.

Other funding models are available and will be highly dependent on the amount of revenue the operator believes can be raised by user rental charges. For example, major cities with high potential demand such as Manchester have seen an explosion in dockless hire bike schemes, which are entirely privately funded. However, smaller cities and towns may need to be fully publicly funded, including all construction, operation, and maintenance costs. Given the current levels of cycling demand within Newton Abbot, it is likely that significant Council funding and ongoing subsidy would be required to create a viable scheme.

Key considerations when identifying potential e-bike dock sites include:

- Suitable site with sufficient space and access, ideally in a highly visible location
- Potential demand, considering commuting, leisure, education, and business uses
- Proximity to the cycle network
- Grid connection costs, including proximity to the nearest substation
- Integration with public transport and complementary mobility services
- Scope for external funding (e.g., developer contributions)

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.

The Torbay Velopark opened in 2014. The 1.5km facility is currently the only outdoor closed road circuit in Devon and Cornwall.accommodating amateur and professional cycling and a range of other sporting activities. Bikes, helmets, and baby trailers can be hired on-site. The total cost of the facility was £850,000 with British Cycling providing 50% match funding to Torbay Council.xvii

There is a local aspiration to complement this facility with a cycle hub in Newton Abbot. This would have a combination of accessible off-road routes available for events and skills training and a space where people can come together. This could also include cycle recycling and opportunities for people to learn the skills to fix their own cycles, demonstrated successfully by Ride On – Cycling for All in Exeter. We understand Ride On are interested in opening a second location in Newton Abbot.

The racecourse has been identified as one potential location, with the owners keen to encourage greater use throughout the year. Other potential locations identified by local stakeholders include Forde Park, and Teign Road.

WSP discussed the concept of a Cycle Hub in Newton Abbot with British Cycling. The key points were;

- The Places to Ride funding window is currently closed. It is unclear whether further funding will be made available to British Cycling.
- This aspiration must be considered as part of a strategic facilities review in the area, ensuring the type and mix of proposals complement and don't compete with existing provision such as the Torbay Velopark (under 10 miles away) and other proposals in the Devon area. There could otherwise be a risk of reducing the viability of other facilities.
- A safe direct cycle link for potential users to any site is key to minimise generating additional unnecessary traffic.
- There can be a relatively high cost to providing this kind of facility and the level of investment, at this point in time, may be better spent delivering everyday routes linking communities with schools, workplaces and open spaces.

E-BIKE HIRE SCHEME

Delivery of an e-bike hire scheme would require working closely with an operator to develop the business case, funding model, and to identify potential dock locations. The co-bikes model in

NEWTON ABBOT CYCLE HUB



APPENDIX B: KEY COST ASSUMPTIONS

Overall assumptions

- Preliminaries allowance 35%
- Preparation 9%
- Supervision 5%
- Project Risk Allowance 44%
- Inflation and VAT: Excluded

Scheme assumptions

Cost assumptions were estimated both "bottom-up" using a bill of quantities approach, and "top-down" using outturn costs from recent similar schemes. The two cost estimates were compared and adjusted if required. At this early stage of scheme development, costs provided are indicative and further feasibility design work will be needed to confirm costs more accurately.

Costs for bridges have not been included at this stage due to the significant uncertainty and challenge of estimate bridge costs at this early stage of scheme development. Further investigation on site and feasibility designs are likely to be needed to confirm bridge costs.

Cost of land purchase has not been included due to the significant uncertainties about this.

Town Centre

- Assumes a transformative scheme at Highweek Street junction, including public realm improvements
- Includes lighting cost for Courtenay Park
- Excludes costs for Future High Streets Fund schemes, including continuous footway crossings on Queen Street
- Excludes costs for improvements to Market Walk shopping centre service yards
- Excludes costs for public realm enhancements at the railway station forecourt

Wolborough

 Assumes a modal filter on Kingskerswell Road is not delivered and the higher cost solutions for off-road and quiet road provision will be needed to achieve AAA provision.

- Excludes cost of replacement ped/cycle bridge over railway
- Excludes cost of route through development sites
- Excludes cost of routes TBC through Decoy Park
- Excludes cost of bridge over railway and A380, and linking onward connections
- Excludes any land purchase cost

Buckland & Milber

- Excludes cost of potential link from rail station to Quay Road on Network Rail land
- Excludes any land purchase cost
- Assumes point 6 Brunel Road would be delivered as a protected cycle track
- Includes lighting for recommendations 9-11

Stover Trail to Teign Estuary Trail

 Excludes cost of new bridge over River Lemon and alternative option to use existing Heathfield rail bridge

Kingskerswell & Torbay

- Excludes potential land purchase cost to reconfigure bus stop
- Assume that existing kerbs and drainage on Newton Road and Torquay Road can be left unchanged for the majority of the route

Kingsteignton

- Excludes cost of improvements on Kingsteignton Road that are not specified in the report
- Excludes cost of Strap Lane route. Excludes associated land purchase costs

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