Exeter

Local Cycling and Walking Infrastructure Plan

Background Report

July 2021

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1. INTRODUCTION

1.1 Background

1.1.1 Exeter is a thriving economic centre for Devon and a desirable location to live, with a population of approximately 130,000 people. It has one of the highest levels of active travel in the country, with a strong track record of encouraging and increasing levels of walking and cycling. Walking levels in Exeter are consistently amongst the highest in the UK. Cycling levels continue to grow, building on the success of the Cycling Demonstration Towns status from 2006-11, and the 2014 completion of the Exe Esturary Trail connecting the city to the coast and communities along the estruary.

1.1.2 Looking forward, the Exeter Transport Strategy 2020-2030 sets out the ambition for 50% of trips to be made by foot or cycle by 2030. This target received high levels of public support during the Exeter Transport Strategy consultation and was based on a robust evidence base of the extent of change possible. This is an ambitious target and will require substantial investment, new design approaches and efforts to support changes in attitudes and travel behaviour. The Exeter Local Cycling and Walking Infrastructure Plan (LCWIP) sets out the measures required to help deliver the modal shift to achieve the 50% Active Travel target.

1.2 LCWIP process

1.2.1 LCWIPs, as set out in the Government's Cycling and Walking Investment Strategy, are a strategic approach to identifying cycling and walking improvements required at a local level. LCWIPs will be instrumental in leveraging funding from the 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.

1.2.2 The LCWIP will follow the format and methodology recommended in the Department for Transport's technical guidance, with the following six stages[1]:

- 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

[1] DfT (2017) Local Cycling and Walking Infrastructure Plans: Technical Guidance for Local Authorities https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908535/cycling-walking-infrastructure-technical-guidance-document.pdf

walking and cycling. 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 inot a network of routes and determine the type of improvements required.

- Stage 4: Network planning for walking – identify key trip generators, core walking zones and routes, audit existing provision and determine the types of improvements required.

- Stage 5: Prioritising improvements – prioritise improvements to develop a phased programme for future investment

- Stage 6: Integration and application – integrate outputs into local planning and transport policies, strategies, and delivery plans

1.2.3 In addition to the route-based approaches set out in the LCWIP guidance, the plan will also consider the future role that Liveable Neighbourhoods can play in increasing uptake of cycling and walking across Exeter.

1.3 Geographical extent

1.3.1 The core focus of the Exeter LCWIP will be within the administrative boundary of the city. Creating a comprehensive, accessible and coherent cycling and walking network in the city, that connects residential areas with schools, key economic hubs, public open space and transport interchanges will be central to achieving the target of 50% of trips being made on foot or by bike. This represents the most achievable way of reducing short distance car trips in Exeter.

1.3.2 Travel patterns do not stop at the city boundary, and the LCWIP will also consider opportunities to:

- support active travel access from villages on the edge of the city through new infrastructure links and/or creation of green lanes; and,

- provide strategic connections to existing settlements and areas of future development within cycling distance of Exeter.

1.3.3 The LCWIP will build upon existing evidence and policy to identify walking and cycling infrastructure improvements and facilities required to achieve our ambitious target. Following the process set out in the the technical guidance, the LCWIP boundary shown in Figure 1-2 is identified, focusing on infrastructure within the city boundary and considering trips and routes within a 10km radius of the centre. This is based on:

- The Exeter City Council boundary, where there is the highest overall potential to increase walking and cycling trips, considering major trip generators, schools, and other significant origins and destintations.

- As the Exeter TTWA covers an extremely large area, the focus will be on routes to major settlements within a reasonable cycling distance of Exeter (circa 10km) which have the highest potential for increases in cycling trips. The Exeter Travel To Work Area (TTWA) shown in Figure 1 has grown considerably in recent years

and is now the second largest geographical TTWA in the country (behind Cambridge).

- The plan will also need to consider the opportunities and improved active travel links to new housing and employment growth areas both within the city and within a reasonable cycling distance of the city.

1.3.4 The plan will build upon existing evidence and policy to identify cycling and walking infrastructure improvements and facilities required to achieve our ambitious target.

Figure 1-1: Exeter Travel to Work Area

Figure 1-2: Exeter LCWIP geographical extent

Question 1: Do you agree with the geographical extent? If not, why not? Would an alternative geographical extent be better?

1.4 Governance

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

1.4.2 During the LCWIP development process the project team will engage with key internal and external stakeholders, including:

- Community stakeholders, including cycling and walking groups;
- Council officers (planning, transport & environment teams);
- County, City, District and Parish Councillors; and,
- Delivery partners, including the Local Enterprise Partnership, Homes England, Highways England, Network Rail, Stagecoach, GWR, SWR, and others.

1.4.3 The final LCWIP documents will be subject to a public consultation later in 2021.

1.5 Scheme delivery timescales

1.5.1 Schemes will be broadly divided into three delivery periods, aiming to achieve the ambition for 50% of trips to be made by foot or cycle by 2030.

- Short term (<3 years)
- Medium term (3-5 years)
- Long term (5-10 years)

1.5.2 Walking and cycling proposals will be prioritised based on a range of factors including potential to increase active travel, scheme deliverability, and links to other schemes and projects.

Question 2: Do you agree with the timescales? If not, why not? What timescales would be better?

2. A STRONG TRACK RECORD OF ACTIVE TRAVEL DELIVERY

2.1 Introduction

2.1.1 Exeter has made good progress with delivering active travel infrastructure, with over £100m of new transport infrastructure in Exeter and the East Devon Growth Point area since 2011.

2.2 Exeter Cycling Demonstration Town (2005-2011)

2.2.1 Exeter was one of six Cycling Demonstration Towns, which aimed to deliver infrastructure and supporting measures to encourage cycling. Overall, the annual expenditure was £17 per head of population, with approximately 80% for capital infrastructure works and 20% for supporting measures such as marketing[2].

2.2.2 The "Cycle Exeter" programme saw increased investment in the city, delivering a programme of over 50km of new or improved cycle routes. There was also greater promotion of cycling and the roll out of Bikeability cycle training at schools and opportunities for adults to learn or return to cycling. Links to schools were a high priority for the programme, with a total of 11.3km of traffic-free cycle routes and shared use paths installed to improve access to schools. The programme also improved cycle links to the University of Exeter Streatham Campus, development of National Cycle Network Route 2 along both sides of the River Exe, and included improvements to cycle parking and signage.

2.2.3 Between 2005 and 2009 the number of cycle trips in Exeter increased by 45%, and this growth in cycling has continued and been sustained. The evaluation of the programme suggested that the Cycling Demonstration Towns are "entitled to consider themselves

[2] Source: Cycling Demonstration Town Evaluation Reports
https://www.sustrans.org.uk/media/2964/2964.pdf
https://www.sustrans.org.uk/media/2956/2956.pdf

as ‘standard bearers’ for future growth in cycling in Britain”. The Cycling Demonstration Towns programme showed that increased funding for cycling can lead to real and lasting change, and provides Exeter with a great platform for continued changes in travel behaviour

2.3 UK’s first on-street electric bike hire (2016)

2.3.1 Co-bikes was the UK’s first on-street electric bicycle hire scheme, operating across Exeter. The scheme relaunched with updated bikes in September 2019, and within two months there were 450 new or returning members making 1,200 trips on the bikes, with 75% of the users living in Exeter. Plans are underway to expand to new sites across the city, including trialling new dockless hire stations, additional rail stations, new housing developments and key employment hubs, with over 6,000 trips made in March 2021.

2.4 Completion of Exe Estuary Trail (2017)

2.4.1 The Exe Estuary Trail is a cycle and walking link extending over 16 miles from Dawlish to Exmouth, and Exeter Quay. The 10-year scheme cost around £17 million to develop, and has resulted in a high-quality, largely off-road, cycling and walking route. The route connects towns and villages, railway stations and ferries; providing active access around the Exe Estuary, one of Devon's most highly designated and protected environments. The trail forms part of the National Cycle Network Route 2, as well as parts of the East Devon Way and Exe Valley Way walking trails.

2.4.2 The trail enables safe commuter cycling between the settlements around the Exe Estuary. It also contributes to health and wellbeing by providing easily accessible green infrastructure to residents along the Estuary. It enables the public to experience wildlife, with opportunities for education and community engagement, and provides opportunities for business growth and tourism.

2.4.3 The trail connects 80,000 residents in the area to Exeter and helped bring about a significant increase in walking and cycling. Around 30% of trips made on the trail occur during commuter periods. The trail also has a high proportion of leisure use and acts as a tourist attraction in its own right. The scheme has led to increased footfall for businesses along the route, as well as enabling more cycle hire locations.

2.4.4 Evaluation of expenditure for trail users across the Exe Estuary Trail, and two similar trails in Devon, suggested the trails resul in £13.4 million in annual business turnover, 200 full time jobs, and health benefits of over £3.5m per year[3].

[3] SQW (2015) Devon cycling and walking trails Economic impact analysis for Devon County Council

2.5 Continuing delivery of strategic cycle routes

2.5.1 Significant progress has been made in recent years with delivery of strategic cycle routes across Exeter. During 2020, the latest section of the high quality, largely segregated “E4” route was completed linking the university to the east of the ity. The route was built according to the latest design guidance, and was funded by a combination of government grants and developer contributions.

2.5.2 In 2020 the Emergency Active Travel Fund (EATF) monies from government were used to create pop-up road closures and deliver parts of the “E3” route and the 5km pop-up “E9” route, with work in progress to make this permanent. These routes provide connections from the eastern edge of the city to the city centre, connecting to neighbourhoods along the way, the Royal Devon & Exeter Hospital (RD&E), County Hall, and business parks. Exeter has delivered the longest distance of cycle improvements through EATF of any UK city outside London[4].

[4] https://ecf.com/dashboard

2.6 Sport England Local Delivery Pilot

2.6.1 Further walking and cycling measures will be delivered through the Sport England Local Delivery Pilot. This three year programme will lead to community streets, school streets, play streets and a transformational neighbourhood scheme in several areas of the city including Newtown, to boost active travel in parts of the city with the lowest levels of physical activity.

Question 3: Are there other examples of active travel delivery in Exeter we should be celebrating in this section?

3. GATHERING INFORMATION

3.1 The case for walking and cycling

3.1.1 The Department for Transport's (DfT) Gear Change and Cycling and Walking Investment Strategy (CWIS) documents include the aim to double cycling activity by 2025. There will be substantial benefits from achieving this outcome, in terms of supporting public health and wellbeing, more vibrant cities and public spaces, and reducing emissions from transport.

3.1.2 In 2020 the Government announced a £2 billion plan to boost cycling and walking both during and after the Covid-19 crisis. The DfT also announced that they will fund local authorities to create dozens of new "Mini-Holland" schemes. These Low-Traffic Neighbourhood pilots are modelled on Dutch schemes to make local streets safer for walking, cycling and play.

3.1.3 Both Devon County Council and Exeter City Council share Government's ambition to provide more direct, convenient, safe and attractive options for local journeys.

Responding to the climate crisis

3.1.4 Both Devon County Council and Exeter City Council have declared a climate emergency, and have signed the Devon Climate Declaration. Exeter City Council have pledged to work towards creating a carbon neutral city by 2030.

3.1.5 Transport contributes approximately 27% of Devon's greenhouse gas (GHG) emissions. It is the sector with the largest GHG emissions across the County. Reducing transport GHG emissions 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 more sustainable transport options such as cycling and walking are the most important ways to tackle transport GHG emissions.

Supporting health, wellbeing and access for all

3.1.6 Active travel can play a crucial role in supporting public health and wellbeing. A lack of physical activity causes one in six deaths in the UK, and costs the country an estimated £7.4bn per year. In Exeter, 54% of adults are overweight or obese[5]. Improved walking and cycling infrastructure enables more people to take regular exercise, be more active and in turn, reduces incidences of illness and disease.

3.1.7 In 2019, an average of 76 people per day were killed or seriously injured on Great Britain's roads. In addition, air pollution causes an estimated 28,000 to 36,000 deaths a year nationally, as well as an increased risk of chronic health conditions.

Improving accessibility and social sustainability

3.1.8 27% of Exeter households do not own a car, rising to more than 50% of households in the city centre and Newtown[6]. There are high levels of deprivation in some areas of the city, including the city centre, Newtown, St Thomas, Whipton, and Wonford. It is

[5] Source: Exeter City Health Profile 2016
https://committees.exeter.gov.uk/documents/s53539/Exeter%20City%20Health%20Profile%202016.pdf
[6] Source: Census 2011

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 to achieve this.

3.1.9 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.

Accomodating growth

3.1.10 Exeter is one of the fastest growing cities in the UK, with over 2,600 homes needed per year across the Greater Exeter area. Exeter City Council's Liveable Exeter: A Transformational Housing Delvery Programme document, notes there is a once in a generation opportunity to renew the structure of the city so that it can accommodate the sort of change and attract the investment it needs for its communities to prosper in the future. A total of eight potential major development sites are identified that could accommodate over 5,000 new homes, in addition to growth already identified in existing Local Plans. The document states that "*As Exeter grows it will be important to recognise and improve the qualities that make it liveable. The streets, spaces and parks that link neighbourhoods and the city centre need to be safe and attractive to use, encouraging people to be active, healthy and use cars less".*

Economic benefits

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

- Cycle schemes can achieve more for less, producing between £5 and £35 of benefit to the economy for every £1 spent;
- People cycling visit local shops more regularly, spending more than users of most other modes of transport;
- 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; and,

Question 4: Have we clearly set out the benefits of active travel? What could be improved?

3.2 Policy context

3.2.1 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

3.2.2 **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.

3.2.3 **Cycling and Walking Investment Strategy (DfT 2017):** Aims to make active modes a natural choice. Outlined that locally targeted investment via LCWIPs enables people to be connected with places – creating vibrant, healthier and productive places and communities.

3.2.4 **Transport Decarbonisation Strategy (DfT 2021):** Summary to be completed

3.2.5 **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'.

3.2.6 **Everybody Active, Every Day (Public Health England 2014):** Indicates how the built and natural environment impact on the travel choices people make. Highlights the need for effective urban design and transport systems which create 'active environments' to promote more liveable communities.

3.2.7 **Clean Air Strategy (DEFRA 2018):** Outlines how achieving modal shift is key to delivering emissions. LCWIPs have a part to play in tackling reducing air pollution through the delivery of walking and cycling options for journeys.

3.2.8 **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

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

3.2.10 Key local policy & plans include:

- Devon Interim Carbon Plan (DCC 2020) and Net Zero Exeter 2030 Plan (Exeter City Futures, endorsed by ECC 2020)
- Devon & Torbay Local Transport Plan 3 2011-2026 and Transport Infrastructure Plan (DCC 2011)
- Cycling and Multi-Use Trail Network Strategy (DCC 2015)
- Exeter Transport Strategy 2020-2030 (DCC 2020)
- Exeter Local Plan (ECC 2012)
- Exeter Live Better and Move More – Physical Activity Strategy (ECC 2019)
- Liveable Exeter – A Transformational Housing Delivery Programme (ECC 2019)
- Exeter Air Quality Action Plan (ECC 2019)

3.2.11 Other relevant local policy & plans that outline specific active travel infrastructure proposals for specific places include:

- Exeter City Council's Built Facilities, Playing Fields, Pitches, Parks and Open Spaces Report (Jan 2019)
- South-West Exeter Development brief SPD (ECC 2014)
- Sustainable Transport SPD (ECC 2013)
- Planning obligations SPD (ECC 2014)
- University of Exeter Science Park SPD (East Devon District Council 2008)
- Residential Design Guide SPD (ECC 2010)
- Riverside & Ludwell Valley Parks Masterplan (ECC 2016)
- Cylst Valley Regional Park 25 Year Masterrplan (EDDC 2021)
- Exeter Green Infrastructure Strategy (ECC 2009)

3.2.12 Further details of relevant local policies and plans are outlined below.

3.2.13 Both Devon County Council and Exeter City Council have declared a climate emergency, and have signed the **Devon Climate Declaration**. Exeter City Council have pledged to work towards creating a carbon neutral city by 2030. Transport contributes approximately 27% of Devon's greenhouse has emissions (GHG), and is the sector with the largest GHG emissions across the County. Reducing transport GHG will be essential to meet both national and local climate commitments. The **Devon Carbon Plan** identifies that reducing the need to travel and shifting to sustainable transport options such as cycling and walking are the most important ways to tackle transport emissions.

3.2.14 In April 2020, the **Net Zero Exeter 2030 Plan** was formally adopted by the City Council. It presents Exeter's view of how the city can achieve its ambition to be net-zero carbon by 2030. Key relevant actions relevant to the LCWIP include:

- Reduce default speed limits in high-density areas to 20mph to ensure Exeter's roads are safe for everyone using them
- Deliver a safe, segregated convenient cycle and walking network that is accessible to all ages and supported by infrastructure (such as changing and storage facilities) across the city centre and at major employment / education sites
- Make the city centre, and core walking areas, free from non-essential motorised vehicles to provide a vibrant public space and free up land currently used for driving and parking
- Optimise the city transport network (including highways, cycleways and waterways), to give priority for sustainable, shared and active modes of travel
- Enhance pedestrian environments in residential areas by removing through traffic, creating quieter and safer streets.

3.2.15 **The Exeter Local Plan adopted core strategy** sets out policies to guide future development and change in Exeter city for the period up to 2026. The document includes the vision and objectives for the city, a Spatial Strategy, strategic policies, and strategic allocations. Exeter City Council had been working with neighbouring district authorities on a **Greater Exeter Strategy Plan** to replace the current Local Plan, however, following a decision by East Devon District Council to withdraw, discussions are currently ongoing between the partner authorities to consider the options for potential future joint planning work.

3.2.16 In 2019 Exeter City Council considered **Liveable Exeter: A Transformational Housing Delvery Programme**. It is understood the document has no formal status in the planning process, but does set out the City Council's vision for the city and identifies key potential development sites. The reports notes there is a once in a generation opportunity to renew the structure of the city. A total of eight potential development sites are identified that could accommodate over 5,000 new homes as shown in Figure 2-1.

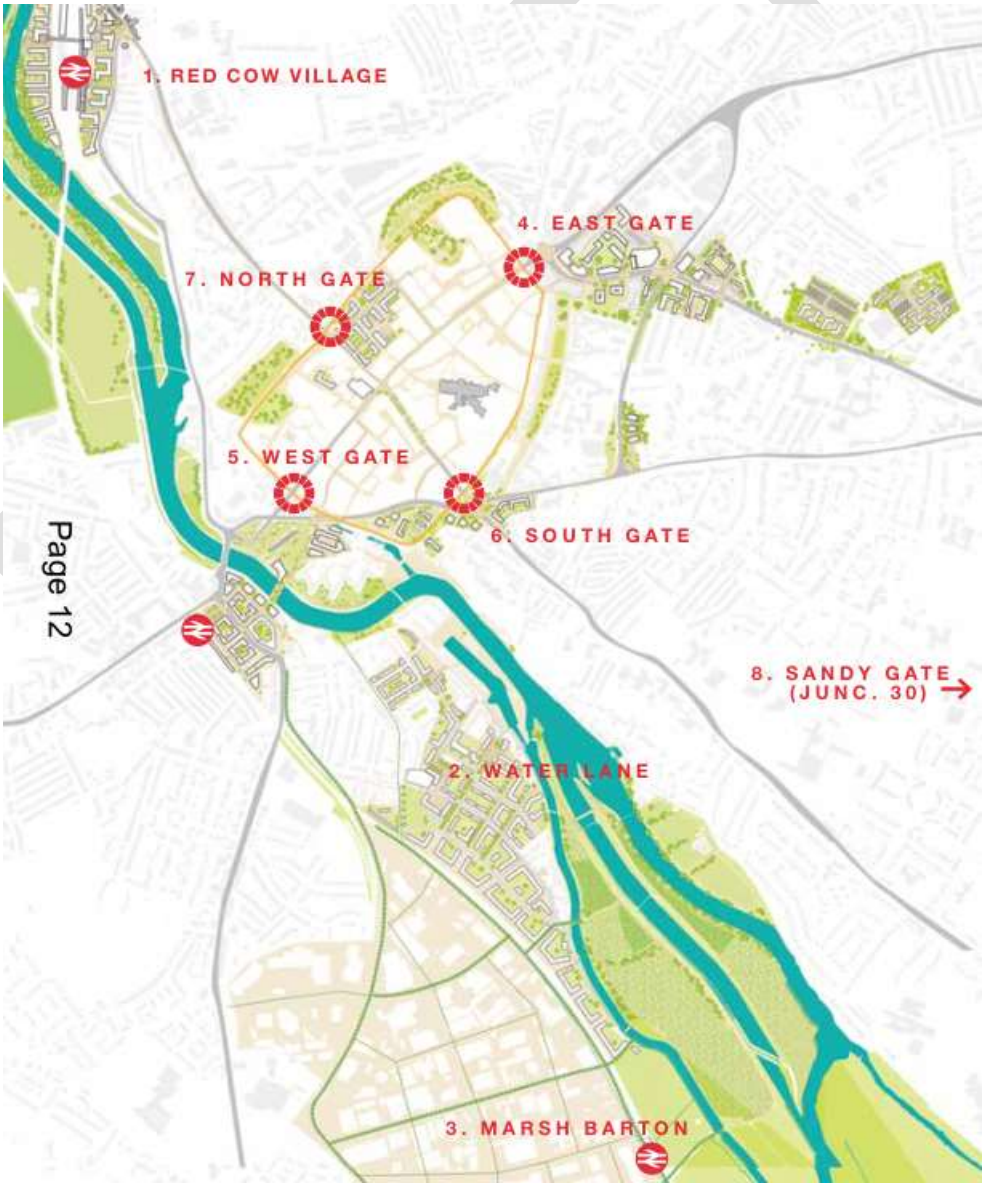

Figure 2-1: Liveable Exeter development sites

3.2.17 The document includes several significant proposals that would impact on the transport network in Exeter, including:

- A new pedestrian and cycle bridge to better link St Davids Railway Station to the Exe Estuary Trail, including opening up the river from the station.
- Low traffic or car free development with attractive cycle and walking connections at Water Lane
- Improved cycling and walking linkages to the new railway station at Marsh Barton
- Redevelopment on the current site of the St Davids Railway Station car park
- An enhanced approach to the city centre from the east – Heavitree Road has reduced traffic and greater provision for public transport, walking and cycling
- Opening up access to the river and canal from the city centre, including a new cultural destination on the river, expanded park, and converting one of the Exe Bridges to a "Green Bridge".
- New St Thomas Railway Station entrance
- Replacing the complex junction of Western Way and Holloway Street, providing a new arrival to the city centre from Topsham Road.
- Improved link between the city centre and historic quayside
- Downgrading several junctions on the Western Way to unlock development land and improve conditions for walking and cycling

3.2.18 **Devon & Torbay Local Transport Plan 3 (2011-2026):** Included an Exeter Strategy section with a strong focus on accomodate new development and growing travel demand. The strategy included proposals to:

- Deliver the hierarchy of cycle connections between key locations
- Complete the Exe-Estuary Cycle route
- Improve the walking environment
- Programme of cycle training as well as tolerance campaigns for all road users

3.2.19 The network map identified the primary routes that would be high quality and separated from motor traffic – either off-road or on quiet roads – and the secondary routes that would connect local neighbourhoods to the primary routes. The accompanying **Devon Transport Infrasturcture Plan (TIP) – Delivering Growth to 2030 (updated April 2020),** sets out planned investment in major transport infastructure across Devon covering the period 2014-2030.

3.2.20 Appended to the TIP was the **Cycling and Multi-Use Trail Network Strategy 2015 – The Exeter Cycle Network**. This outlines the importance of developing and promoting cycle ways and maintaining public rights of way, including a map of key strategic trails for prioritisation across the County. Figure 2-2 below identifies the aspirational primary routes that will provide fast efficient cycle connections linking major new growth areas with key employment, retail, education and leisure destinations.

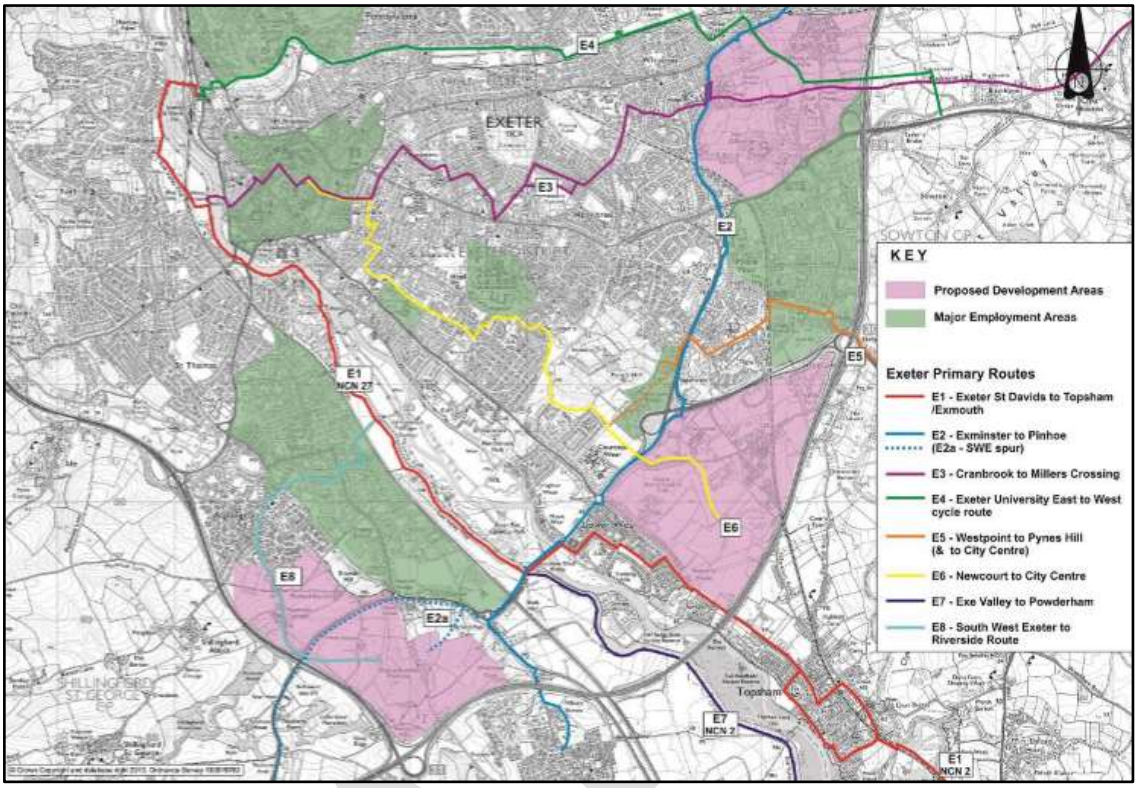

Figure 2-2: Exeter Cycle Network Map (2014)

3.2.21 **The Exeter Transport Strategy (2020-2030)** builds upon the growth led focus of LTP3 and includes a greater focus on improved travel choices, people and technology. Central to the strategy is addressing constraints on sustainable transport networks, delivering interventions that contribute to improved quality of life and utilise the

opportunities that technological advancements have created. This is reflected in three key themes:

- Greater Connectivity
- Greater Places for People
- Greater Innovation

3.2.22 Central to the Greater Places for People theme is the aspiration for 50% of trips within the city will be made on foot or by cycle. This represents the most effective means of reducing car borne travel in Exeter.

3.2.23 To facilitate this change, the following key sub themes were identified:

- Enhance key pedestrian corridors, including new river and main road crossings and improved access to transport interchanges,
- Comprehensive citywide Exeter cycle network linking all key destinations, delivering safe routes that can be enjoyed by all
- Improved access to cycle, including city wide bike hire scheme and greater access to storage facilities.
- Filtered permeability creating quieter and safer residential streets & neighbourhoods

3.2.24 The strategy also includes new high-quality strategic cycle links creating a city region strategic leisure network to encourage short to medium distance trips from existing settlements into Exeter and Exe Estuary Trail.

3.2.25 The strategy includes a five year action plan, including a significant amount of walking and cyling schemes.

3.2.26 Public consultation on the Exeter Transport Strategy took place at the beginning of 2019. The consultation received more than 1,100 public responses as well as responses from key stakeholders and organisations. Key findings from the consultation relevant to the LCWIP include:

- There was strong support for improvements to active travel networks;
- The aspiration of 50% of trips by active travel generated mixed views, with some saying it was not ambitious enough and others that it was unachievable;
- 70% of respondents supported the re-dedication of highway space for pedestrians and cyclists in the city centre;
- A relatively low number of comments were received on pedestrian infrastructure, which when considered alongside the high walking mode share in Exeter, could be a reflection that the city is a broadly good environment for walking. Where comments were received, the main themes included further pedestrianisation in the city, and more operational issues such as mitigating the impacts of construction work on walking routes and the need to treat pavements when icy.
- Many of the comments reiterated support for improving the city cycle network, including additional segregated cycle routes, better infrastructure, and improving safety. There were also comments to ensure the network was integrated with other modes including Park & Ride/Park & Change. A city-wide 20mph speed limit was also suggested.

3.2.27 The **Exeter Physical Activity Strategy (Exeter City Council, 2019)** seeks to provide the overall direction for increasing physical activity in Exeter and secure commitment from stakeholders. The strategy describes current physical activity levels and proposes priorities and prinicpals for encouraging active lifestyles. The document proposes that all interventions aimed at increasing physical activity in Exeter are underpinned by the following principles:

1. Build from the bottom up
2. Reduce inequality in participation
3. Equal and inclusive approach
4. Connect people with physical activity
5. Whole systems approach
6. Create a physical activity habit
7. Make it fun
8. Consistent communication
9. Make it visible
10. Work together
11. Evidence and evaluation

3.2.28 The document includes a top 20 target areas in Exceter to focus efforts to increase physical activity levels.

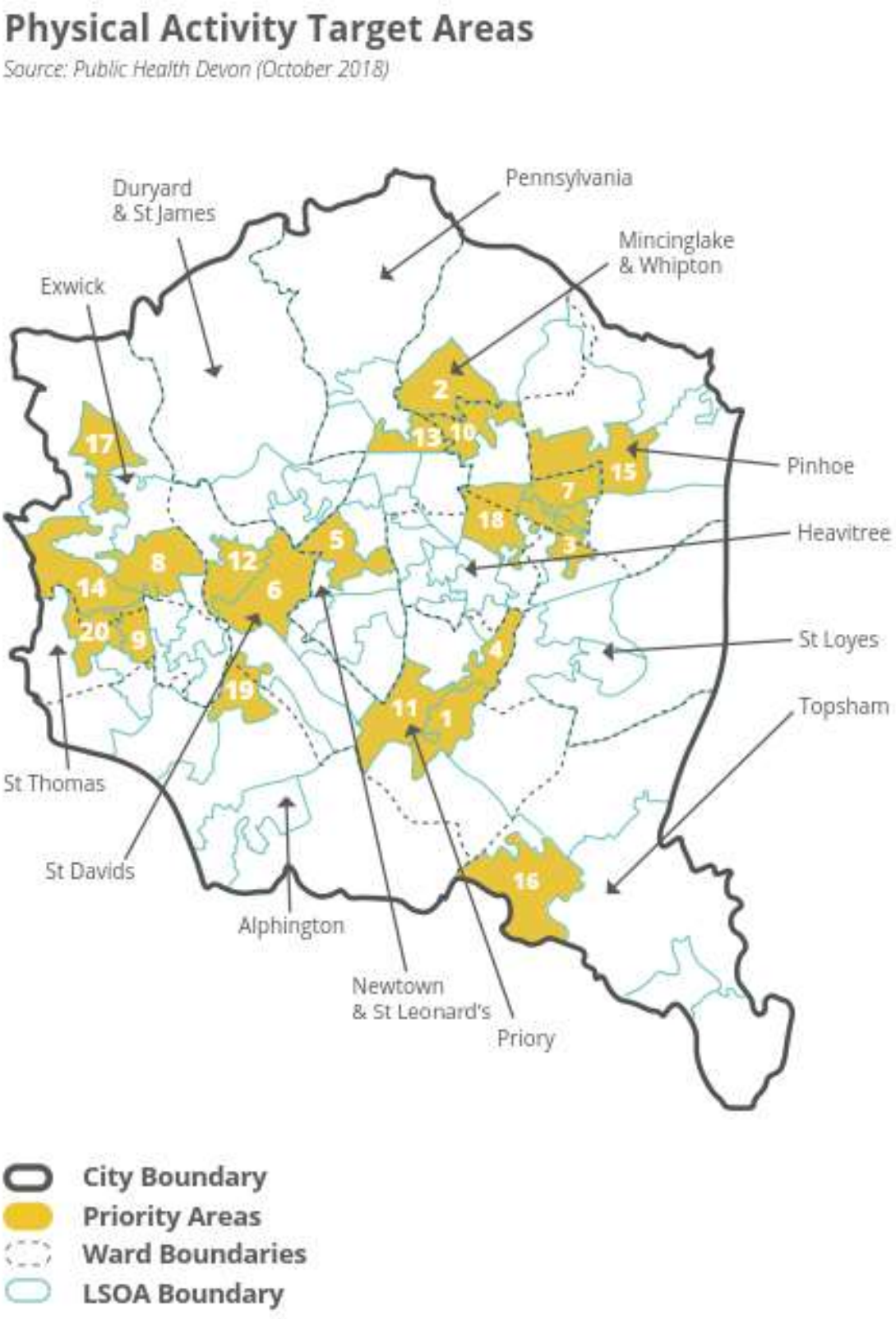

Figure 2-4: Physical Activity Target Areas

3.2.29 The **Clyst Valley Regional Park 25 Year Masterplan (EDDC 2021)** sets out proposals for a large protected greenspace to the east of Exeter. The concept of the Clyst Valley Regional Park is that a number of greenspaces will be linked by greenways. The masterplan defines a shared vision, objectives, and values in developing the Regional Park, and includes a funding strategy and five year action plan. The document includes the following plan, showing an indicative alignment for a network of active travel routes, including The Clyst Valley Trail, which would link the Exe Estuary Trail to Kilerton House & Park to the north, connecting to strategic and local cycle routes, employment sites, and other destinations to the east of Exeter.

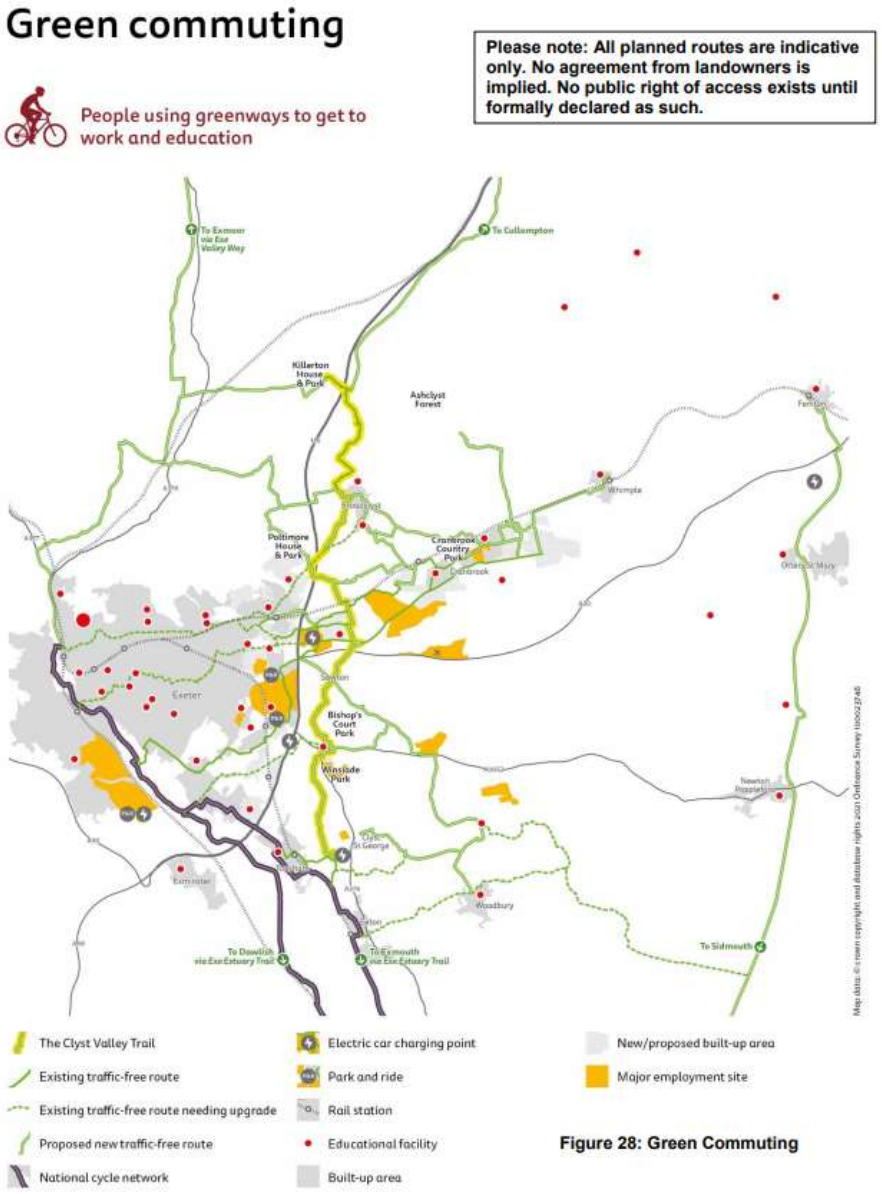

Figure 2-6: Clyst Valley Masterplan cycle routes

Question 5: Are there any relevant policy documentswe haven't included? Have we missed any important points from the policies we have included?

3.1 Existing travel patterns (Pre Covid-19)

3.1.1 Exeter has one of the highest levels of active travel in the country, with just under a third of residents walking for travel five times a week or more, and 6% of residents cycling five times a week or more.

	DfT National Travel Survey 2017-18 (excl. London Boroughs)				
	Walking for travel 5 x a week	**%**		**Cycle for travel 5 x a week**	**%**
1	Oxford	35.8	1	Cambridge	26.2
2	**Exeter**	**29.8**	2	*Isles of Scilly*[5]	17.2
3	Brighton and Hove	26.6	3	Oxford	16.8
4	Cambridge	25.5	4	Norwich	8.1
5	Manchester	24.8	5	Bristol, City of	6.7
6	Bristol, City of	24.6	6	**Exeter**	**6.2**
7	Nottingham	24.4	7	Portsmouth	5.3
8	Norwich	24.2	8	Lincoln	4.9
9	Southampton	23.8	9	Southampton	4.8
10	Reading	23.7	10	Bedford	4.5

Table 3-1: Active Travel Trips across Exeter

3.1.2 The Census Travel to Work data shows that walking and cycling commuter numbers have been growing, particularly since 2001, with walking and cycling accounting for 28% of commuting trips in 2011.

	Mode	Work Home	Train	Bus	Car	Car Pass.	Cycle	Walk	Other	**Walk + Cycle**
Exeter	1991	4%	1%	13%	51%	8%	4%	18%	3%	**22%**
	2001	8%	1%	10%	49%	7%	4%	19%	2%	**23%**
	2011	8%	2%	9%	45%	5%	6%	22%	1%	**28%**

Table 3-2: Census TTW Mode Splits in Exeter

3.1.3 The Exeter Travel to Work area, which reflect self-contained areas in which most people both live and work, is the second largest in the country, with 50% of people who work in Exeter travelling in from locations outside the city.

		Modal Splits (%)[7]						
	All Modes	Car Drive	Car Pass	Bus	Train	**Walk**	**Cycle**	Other
Live in Exeter & work in Exeter	**37,700**	**40.5**	5.6	11.5	1.3	**30.9**	**8.4**	1.9
Commute In – Greater Exeter[8]	***25,500***	***78.5***	*5.9*	*6.5*	*4.7*	***1.2***	***2.1***	*1.8*
Commute In – Outside	***11,100***	***80.0***	*4.9*	*4.3*	*4.7*	***1.4***	***0.5***	*0.9*

Table 3-3: Census TTW Mode Splits in Exeter by category

3.1.4 Inbound commuter traffic is typically dominant, but vehicular traffic has not risen. Rising travel demand has instead been met by more Exeter residents travelling by sustainable travel modes, to a point where the majority of Exeter residents now do not drive to work. However, Exeter residents still account for 35% of car based commute trips to desintations within the city. These short distance car journeys within the city have the most potential to be made by cycling and walking. The origins of residents driving to work in Exeter are shown in Figure 3-1 below.

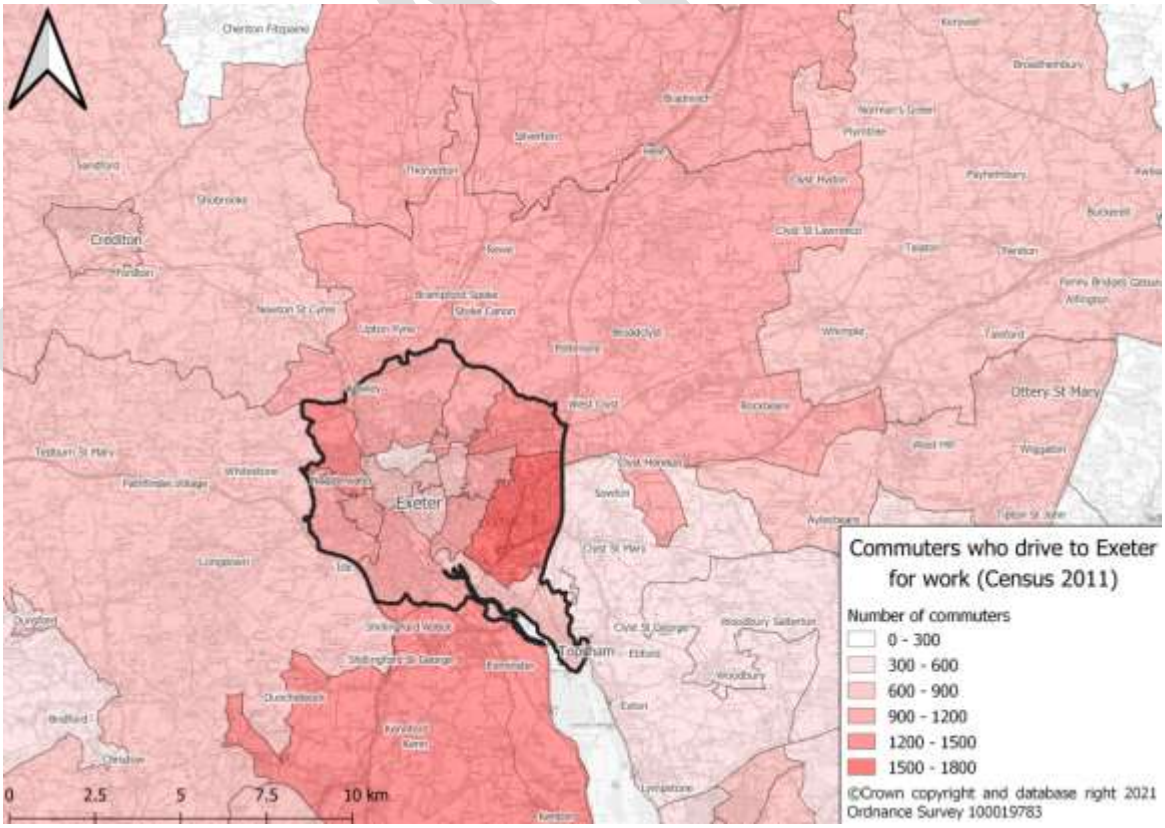

Figure 3-1: Commuters who drive to Exeter for work (Census 2011)

[7] Note Table does not include those with "no fixed place".

[8] Greater Exeter refers to the District Council areas of Exeter, East Devon, Mid Devon and Teignbridge

3.1.5 The Covid pandemic led to a short-term significant shift in travel patterns. There has been large reductions in commuting journeys, more home-working, more online shopping, and a significant drop in public transport patronage. Many people walked and cycled more often in their local neighbourhoods, with walking and cycling levels significantly increasing in many areas. The long-term trends and implciations are still unclear. However, the pandemic has shown that radical and rapid change is possible, and there is an opportunity to build on recent increases in walking and cycling in particular.

Employment

3.1.6 The 2011 Census data identified 75,000 people work within the city. The six largest employment areas in the city account for 85% of all commuting trips . These are **Sowton** including Pynes Hill and Exeter Business Park, **City Centre**, **Marsh Barton**, **Wonford** (covering the RD&E), **St Leonards** (including County Hall) and **Pennsylvania** (University ward). There is a noticeable east-west axis with significant employment focused in the City Centre, RD&E Hospital and Sowton Industrial Estate.

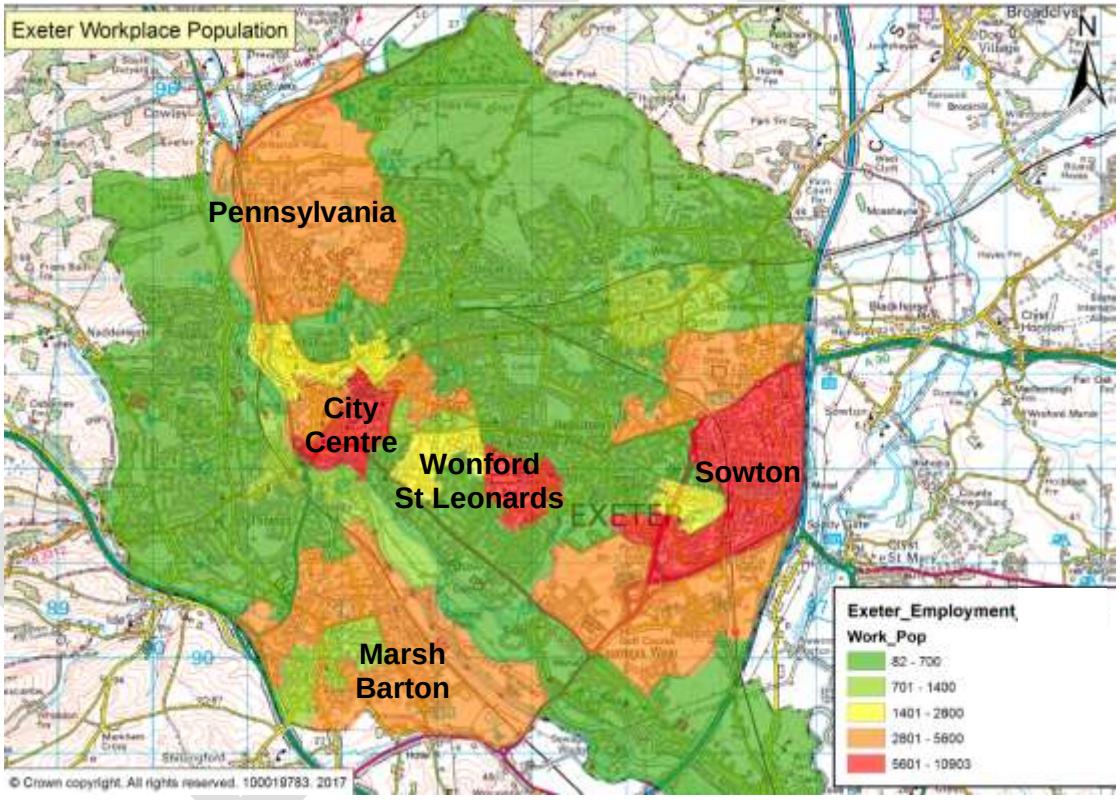

Figure 3-2: Exeter workplace population (Census 2011)

3.1.7 Depending on the place of work, the travel to work modal split varies significantly. Census Data highlights the travel patterns to jobs in each area. This highlights more jobs in Marsh Barton than Wonford (Hospital) albeit that these are spread over a wider area.

	Total commute trips			From Exeter Only		
Desintation	**Gross Total**	**% Drive**	**Number of Car Trips**	**Total from Exeter**	**% Drive**	**Number of Car Trips**
Sowton	19,382	75%	**14,500**	7,638	58%	4,462
City Centre	18,933	41%	7,782	10,461	23%	2,380
Marsh Barton	8,973	73%	6,568	4,254	58%	2,466
Wonford	7,175	57%	4,115	3,795	35%	1,337
St Leonards	4,329	61%	2,649	2,094	41%	858
University	3,941	44%	1,748	2,454	29%	709

Table 1-4: Exeter Key Trip Generators

3.1.8 The city centre has the lowest proportion of car trips to it, with the majority of trips to Pennsylvania (University of Exeter), Wonford (RD&E) and St Leonards (County Hall) wards also not made by car.

3.1.9 Conversely trips to Sowton, and Marsh Barton are car dominant. These sites are on the edge of the city and may include jobs for which a car or van is needed at times, however, in a compact city many of these trips could potentially be made by walking or cycling.

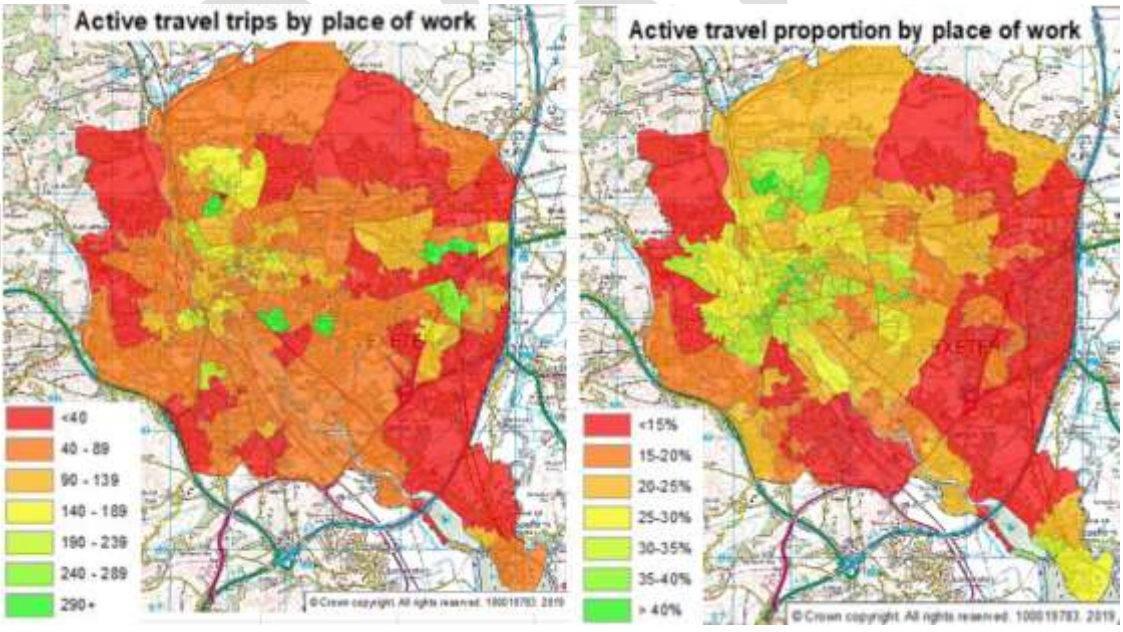

Figure 3-3: Active travel trips by place of work across Exeter

3.1.10 Despite Sowton now hosting a similar number of jobs as the city centre (approx., 20,000), more than five times more people walk to work in the city centre than they do in Sowton. At 11%, the walking share to Sowton is approximately half the share of the average for the city. This is likely due to a number of reasons, including free and relatively unconstrained parking and good access by road to a range of destinations, including good connections to the Strategic Road Network.

Retail

3.1.11 Exeter city centre is is main retail centre in the County, drawing shoppers from a wide hinterland with a shopping catchment of around 1 million people. It is the 2nd largest retail destination in the South West behind Bristol, and ranks in the top 1% of all UK centres[9].

3.1.12 A 2018 review found that Exeter has a very affluent catchment population, with the opportunity for additional mass market and premium brands, with an under supply in the city. Exeter was in the fortunate position that businesses were continuing to move into and relocate to the city. However, the covid-crisis and accelerated uptake of on-line shopping represent a significant risk to city centre retail. As with high-streets across the country, there is a ongoing need to continually improve the shopping experience.

3.1.13 Travel statisitics for those traveling to the city were identified in the 2011 Exeter City Centre Report, which found that around 40% of trips made by Exeter residents to the city centre were done so by car.

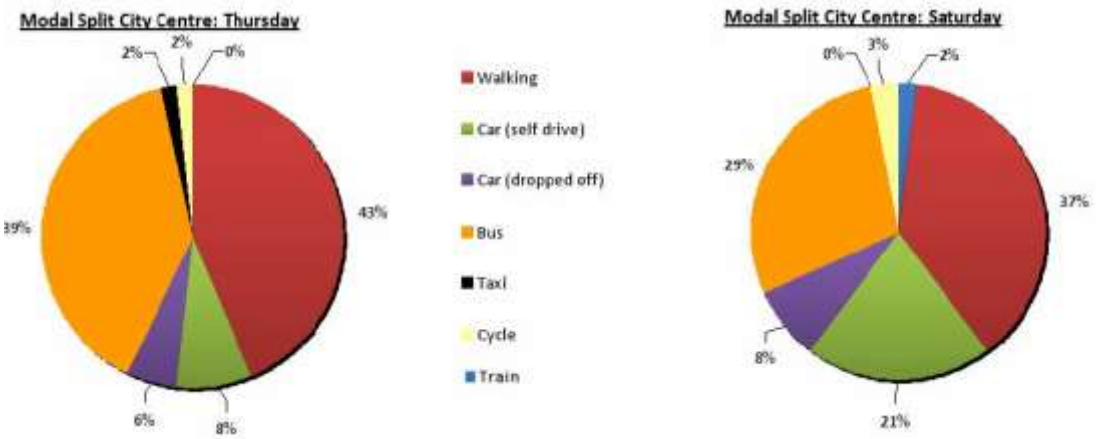

Figure 3-5: Method of travel to city centre retail

3.1.14 Within the city cente there are a number of traffic restricted routes, including fully pedestrianisaed areas, bus only and one way streets. Major walking trip generators in Exeter city centre include: High Street, Princesshay, Guildhall, Southernhay, Queen street, Exeter Central Station and Exeter Phoenix.

3.1.15 The Local Plan identifies three District Centres:

- Heavitree;
- St Thomas; and,
- Topsham

Thee Local Centres are also identified: Sidwell Street / Blackboy Road; Mount Pleasant; Magdalen Road; Countess Wear (Topsham Road); Beacon Lane; Polsloe Bridge; Pinhoe; Whipton; Exwick Road / Winchester Avenue; and, Isleworth Road.

3.1.16 Protecting and strenghting the retail, community, and leisure offer at these district and local centres could play an important role in encouraging more walking and cycling in the city.

[9] Source: https://committees.exeter.gov.uk/documents/s66731/City%20Centre%20Footfall%20Report%20-%20Final%20VH.pdf

Education

3.1.17 National data from the National Travel Survey shows the significant peaks of travel relating to education trips between 08:00-09:00 and 15:00-16:00. However, although education accounts for a significant proportion of total trips, they account for a modest 10% of vehicle trips on the highway, with approximately 70% of education trips in Exeter undertaken by walking and cycling.

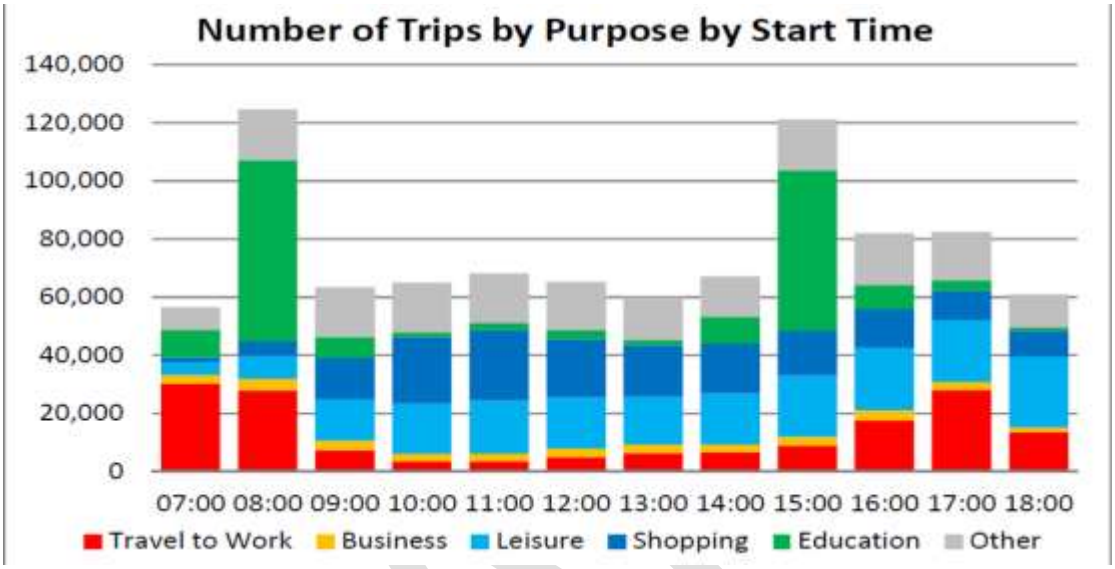

Figure 3-6: National Trip Purpose by Time data

Location	Primary				Secondary			
	Walk	Cycle	Car	PT	Walk	Cycle	Car	PT
National	46%	1%	46%	6%	37%	2%	23%	36%
Greater Exeter	59%	1%	36%	3%	55%	6%	15%	24%
Exeter	68%	2%	26%	3%	60%	9%	17%	14%

Table 3-5: Method of travel to school (2013)

Integration with public transport

3.1.18 For a relatively small city, Exeter is well served by rail with five rail lines and nine stations, with tenth station at Marsh Barton currently under construction. Between 2000/01 and 2014/15 the total patronage at all Exeter stations increased from just under 2.8 million passenger trips in 2000/01 to approximately 6.1 million trips, an increase of 121%.

3.1.19 Growth at Exeter St David's and Exeter Central stations comprises the majority of the absolute increase in passenger numbers, but the largest proportional increases were recorded at the other stations within the city. For example, over the previous 15 year period there was a 550% increase in patronage at Digby & Sowton station and over 1300% percent growth at Pinhoe station.

	2004/05	2009/10	2014/15	2019/20	% change
Exeter St David's	1,632,285	2,152,786	2,509,220	2,676,464	**64%**
Exeter Central	1,045,697	1,512,286	2,343,636	2,536,316	**143%**
St James Park	27,477	46,754	64,586	96,282	**250%**
Pinhoe	12,959	38,326	88,872	130,044	**904%**
Polsloe Bridge	43,788	70,038	116,552	119,048	**172%**
Digby & Sowton	134,804	271,316	571,510	624,496	**363%**
Topsham	127,903	186,056	231,122	229,474	**79%**
Exeter St Thomas	64,295	103,488	213,848	224,132	**249%**
Newcourt*	-	-	99,394	120,460	**121%**
Cranbrook*	-	-	90,458	105,400	**117%**
Total	**3,089,208**	**4,381,050**	**6,219,160**	**6,862,116**	**122%**

Table 3-6: Rail patronage growth at Exeter stations

**Newcourt Railway Station opened to passengers in June 2015. Data for 2014/15 is form 2016/17 to reflect the first full year of operation*
**Cranbrook Railway Station opened to passengers in December 2015. Data for 2014/15 is form 2016/17 to reflect the first full year of operation*

3.1.20 The city is also served by Park & Ride services at Honiton Road, Sowton, and Matford. A new Park & Change at the Exeter Science Park has been contructed and due to open immeniently. The Exeter Transport Strategy sets out an aspiration to deliver Park and Ride on all corridors, with additional sites identified in the five year action plan at Pinhoe and Peamore. Respondents to the Exeter Transport Strategy consultation would like Park & Ride sites to provide facilities for other sustainable travel options, indlucing Park & Cycle.

3.1.21 Finally, bus & coach travel is also a key part of Exeter's public transport system, with the new Exeter Bus Station opening to passengers in July 2021. The new Bus Station offers a significant improvement for passengers, promoting sustainable transport in the city and surrounding rural communities for decades to come. There is a need to ensure that the cycle network provides good connections to the bus station and other key nodes on the bus network that serve longer distance trips, where bus passengers may be able to use a cycle for the first and last mile of their journey.

Question 6: Is there any other relevant data that should be included? (NOTE: see additional data in the cycling and walking planning sections too!)

4. NETWORK PLANNING FOR CYCLING

4.1 Existing cycling trips & issues

4.1.1 At the time of the 2011 Census, 6% of Exeter residents cycled to work, and this has continued to increase since 2011. The city has one of the highest mode shares for cycling in the country, but there are significant opportunities to continue to increase the number of people cycling to be in line with more other UK cities such as Cambridge (29%), Oxford (17%), and York (11%) or attain cycling levels seen in similar sized European cities. Examples include Groningen, Netherlands (55%), and Lund, Sweden (43%)[10].

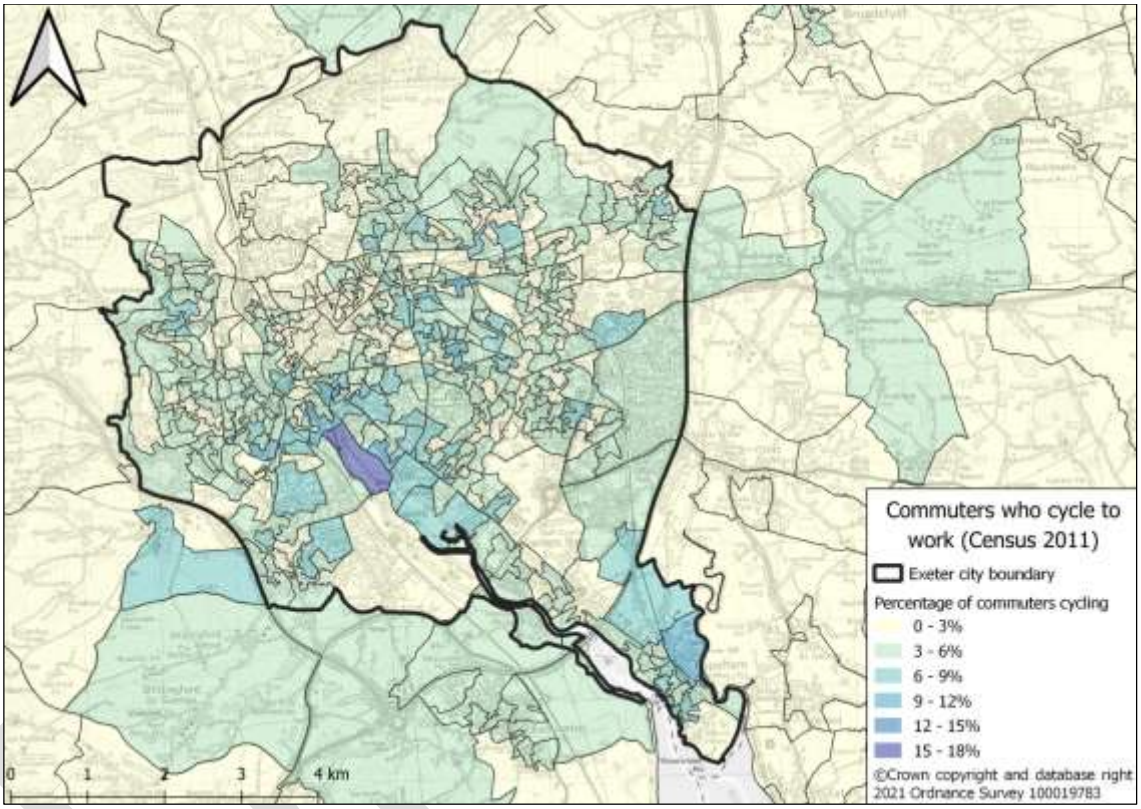

Figure 4-1: Commuters who cycle to work (commuter origins)

[10] Sources: 2011 Census and https://cityclock.org/urban-cycling-mode-share/

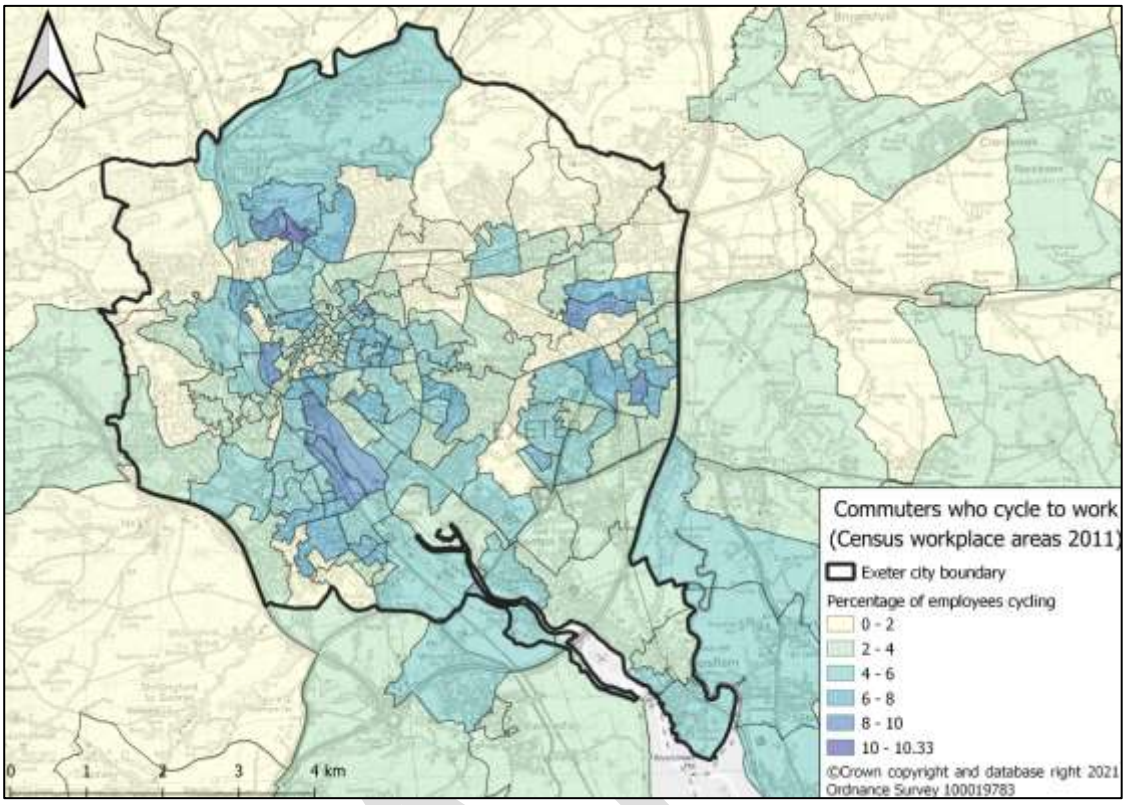

Figure 4-2: Commuters who cycle to work (commuter destinations)

4.1.2 The city's residential areas which recorded the highest levels of cycling to work in 2011 were located along the Exe Estuary Trail between the city centre and Topsham, and in some neighbourhoods east of the city centre. In a limited number of areas 15%-18% of all employed residents who commuted usually travelled by cycle. Levels of cycling to work vary considerably across the city, with pockets of high and low mode shares in adjacent neighbourhoods. Levels of cycling use broadly reflect the quality of existing infrastructure, with high levels of use along the Exe Estuary Trail, and areas to the east of the city where a network of relatively quiet streets provide a range of potential cycle routes (see Figure 4-4).

4.1.3 Exeter is a comparatively hilly city and topography has a strong influence on people's propensity to cycle. Wards towards the north and northwest of the city range from 250 to 500 feet above sea level and have some of the lowest proportions of residents cycling.

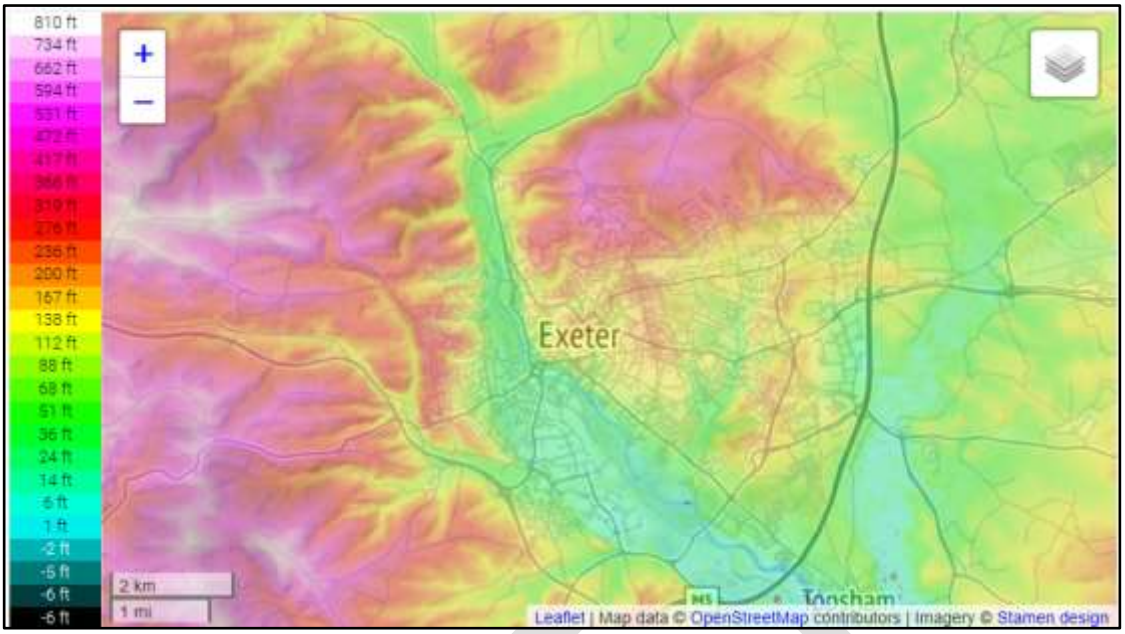

Figure 4-3: Topographic Map of Exeter

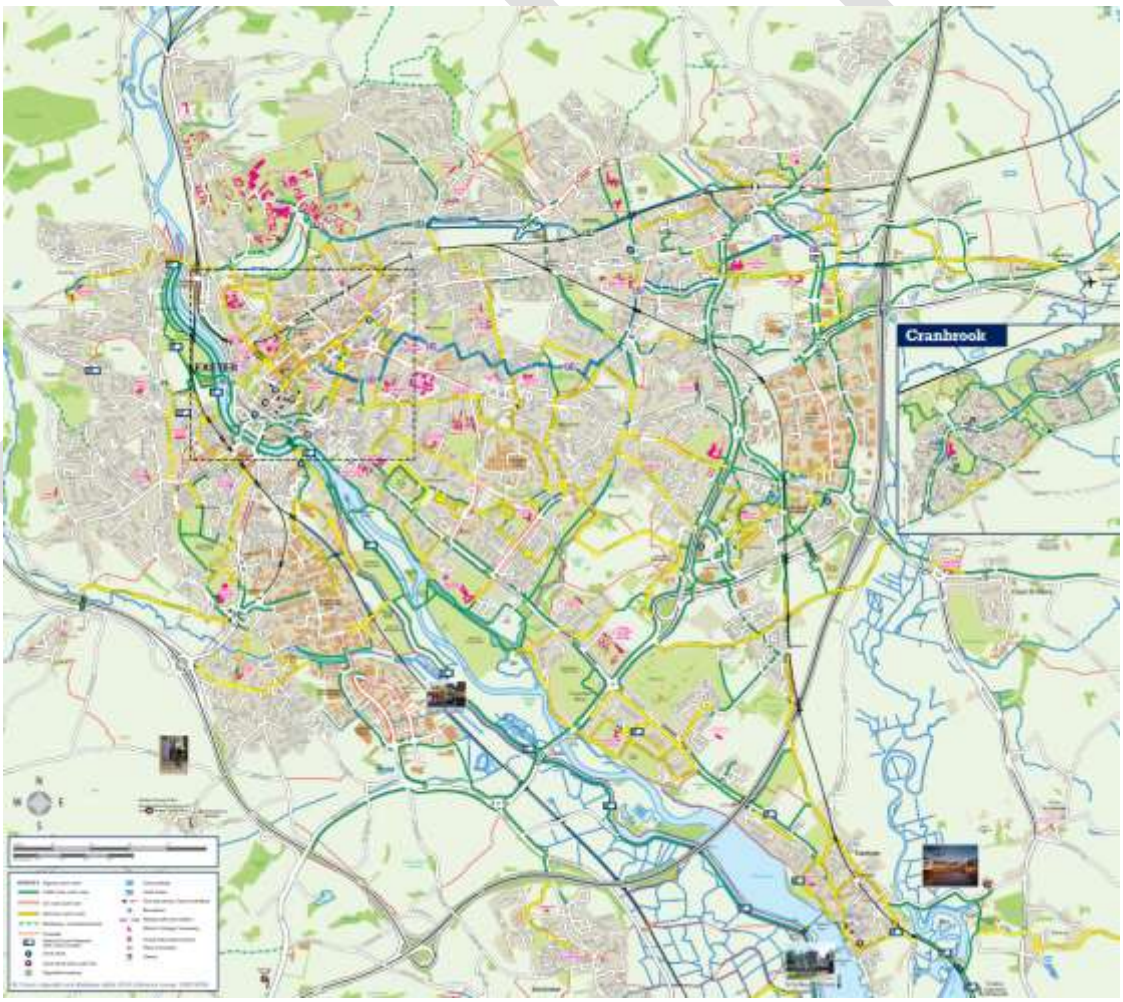

Figure 4-4: Exeter Cycle Map (Existing cycle network)

4.1.4 Table 4-1 shows how the number of cycling trips in the area have increased between 2010-19 based on data from automatic cycle counters. During the Covid-19 pandemic in 2020, there were significant changes in cycle use, with some commuter focused routes such as the Sowton-Digby Railway Link recording a significant decrease in trips, and other more leisure focused routes along the Exe Estuary Trail showing significant increases.

Location	Cycle Trail	2010	2015	2019	2020	Average annual change (2010-2019)	Total change (2010-2019)	2019/2020 change
Exeter… Haven Banks	Exe Estuary	780	968	894	1084	2%	15%	21%
Rydon Lane S/B Cycle Path	Exeter	166	210	150	182	-1%	-10%	22%
Rydon Lane N/B Cycle Path	Exeter	60	51	49	62	-2%	-19%	28%
Exeter Road Topsham	Exe Estuary	278	434	371	489	4%	33%	32%
Prince Charles Road - Lower	Exeter	131	158	179	152	4%	37%	-15%
Exeter...Riverside Valley Park (Salmon Pool Swing Bridge)	Exe Estuary	634	962	910	1120	5%	44%	23%
Exeter - Sowton, Digby Railway Link	Exeter	103	125	137	97	4%	33%	-29%
Exeter - Clapperbrook Lane	Exe Estuary	364	405	404	366	1%	11%	-9%
Exeter...Canal Causeway Cycle	Exe Estuary	130	444	413	643	24%	219%	56%
Exeter… Redhayes Bridge	E4	36	113	158	177	38%	340%	12%
Exeter… Triangle Car Park	Exeter	N/A	77	84	78	2%	9%	-8%
Starcross	Exe Estuary	N/A	224	213	518	-1%	-5%	143%
Dawlish Warren	Exe Estuary	N/A	143	161	237	3%	12%	47%
Dawlish - Exeter Road Cycle	Exe Estuary	41	29	68	83	7%	67%	23%
Exmouth to Lympstone Cycleway	Exe Estuary	271	400	296	365	1%	9%	23%
Exmouth - The Esplanade	Exe Estuary	108	147	154	198	5%	43%	29%
Lympstone...Exeter to Exmouth cycleway	Exe Estuary	228	524	451	573	11%	98%	27%
Exton North Cycle	Exe Estuary	263	374	387	503	5%	47%	30%

Table 4-1: Change in cycle use (automatic cycle counters)

4.1.5 Figure 4-5 shows the estimated routes taken by people cycling to work in 2011 based on outputs from the national Propensity to Cycle Tool (PCT) (top 30% of routes only). Note this is not fully accurate in terms of route choice (e.g. some sections of the Exe Estuary Trail route are not accounted for), but does give a broad overview of likely cycle route usage across the city. It shows that a complex network of routes are likely to be used, with the highest flows between the city centre and Sowton, along the ring road, along the Exe Estuary Trail, and to the University of Exeter's Streatham Campus.

4.1.6 Figure 4-6 shows the estimated routes taken by children cycling to school in 2011 based on school census data. The data highlights a significant number of cycling trips to secondary schools, to the east and south of the city centre. Not all schools participated in the school census, including independent schools, and cycle trips to these schools are therefore not identified on the map.

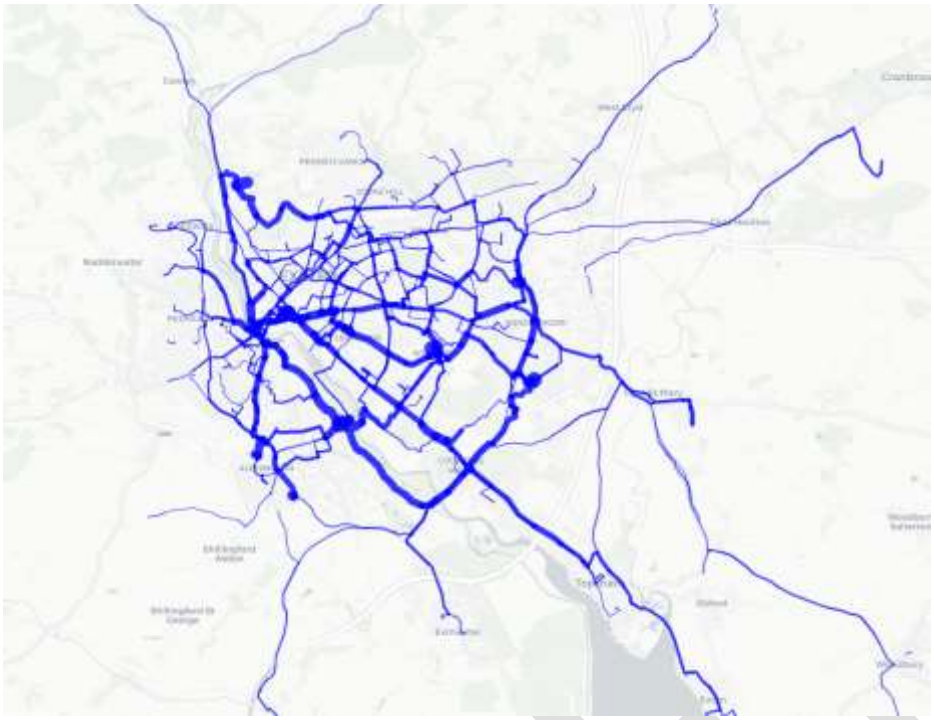

Figure 4-5: Cycle commute trips 2011 (estimated routes from the Propensity to Cycle Tool – top 30% of routes only)

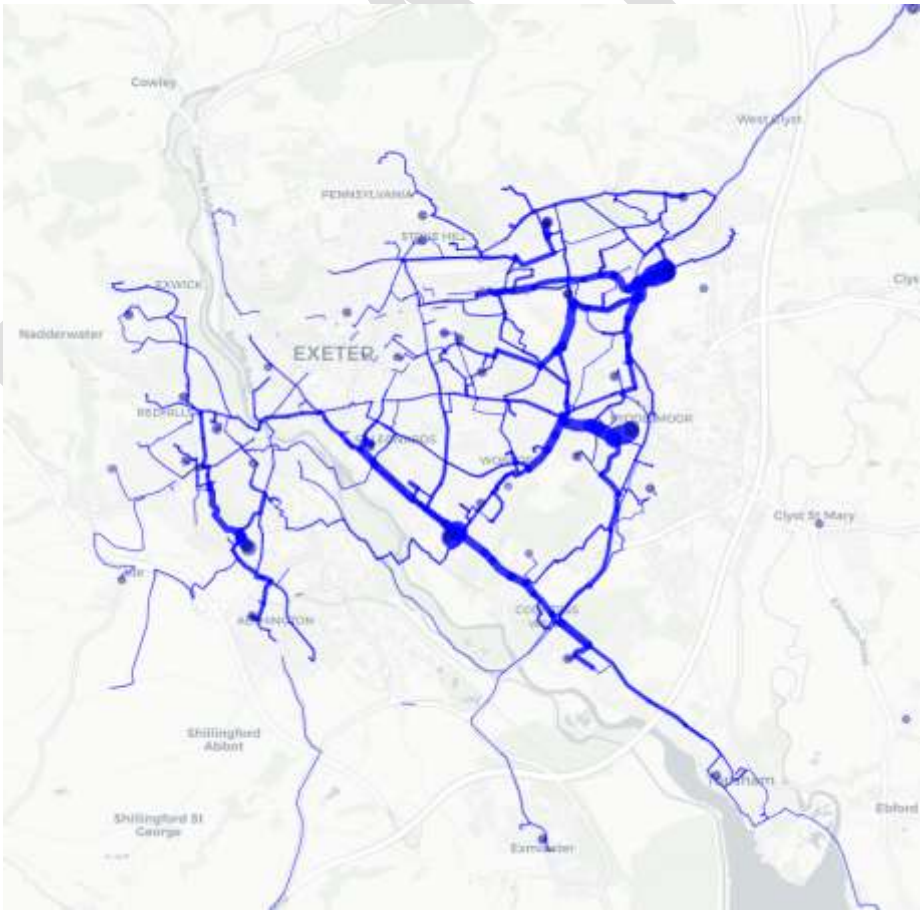

Figure 4-6: Cycle school trips 2011 (estimated routes from the Propensity to Cycle Tool – top 30% of routes only)

4.1.7 Figure 4-7 shows outputs from the Strava global heatmap. This shows anonymised data collected from people cycling using the Strava mobile app. While Strava data is not necessarily representative of all cycling journeys made in the area and tends to be more focused on leisure trips, it still highlights important routes currently used across the city, including the Exe Estuary Trail, routes to the university, east-west routes, and a number of north-south routes to the east of the city centre.

Figure 4-7: Strava global heatmap

4.1.8 Figure 4-8 shows cycle casualties arising from road collisions across the study area during the period 2015-2019, as recorded by the police. For every injury shown on the map, there may be a number of additional injuries and near misses that remain unreported. A large number of serious cycle casualties are clustered around the city centre, with a fatal collision recorded on Western Way. There were also a notable group of serious cycle casualities along Cowick Street to the south-west of the city centre. Other notable groups of cycle casualities were recorded on Pinhoe Road, Topsham Road, Heavitree Road, and along the Mount Pleasant Road - Polsloe Road - Barrack Road corridor.

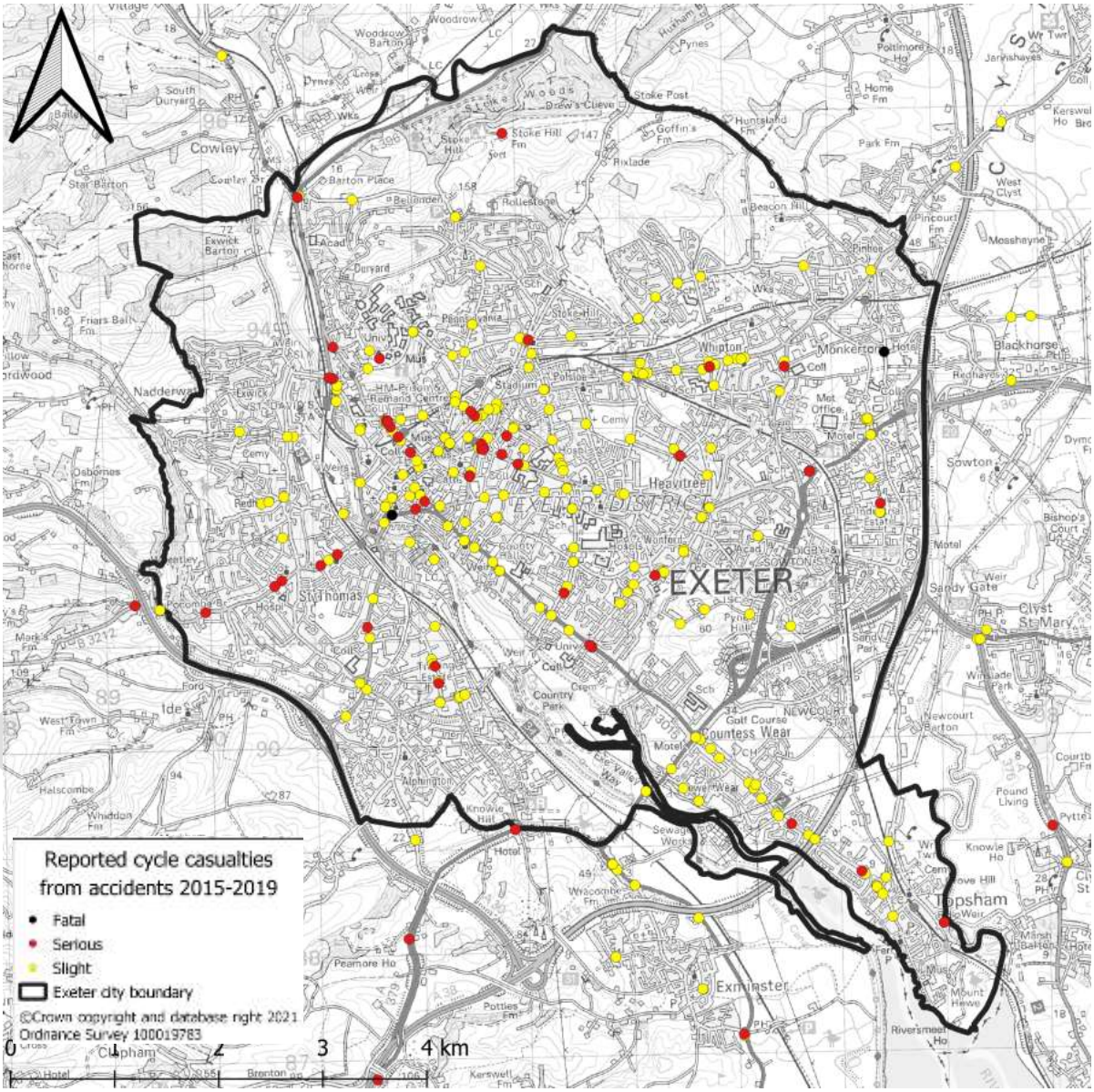

Figure 4-8: Reported cycle casualities 2015-19 (Source: STATS19)

Question 7: Is there any other relevant cycling data that should be taken inot account in the LCWIP?

4.2 Planned cycle infrastructure schemes & future growth

4.2.1 A number of cycle improvement schemes are already being progressed, as shown in Figure 4-9, with current priority schmes including the E9 scheme through Wonford and St. Leonards, E12 through Wonford and Heavitree, and connecting the E4 route from Stoke Hill to the city centre.

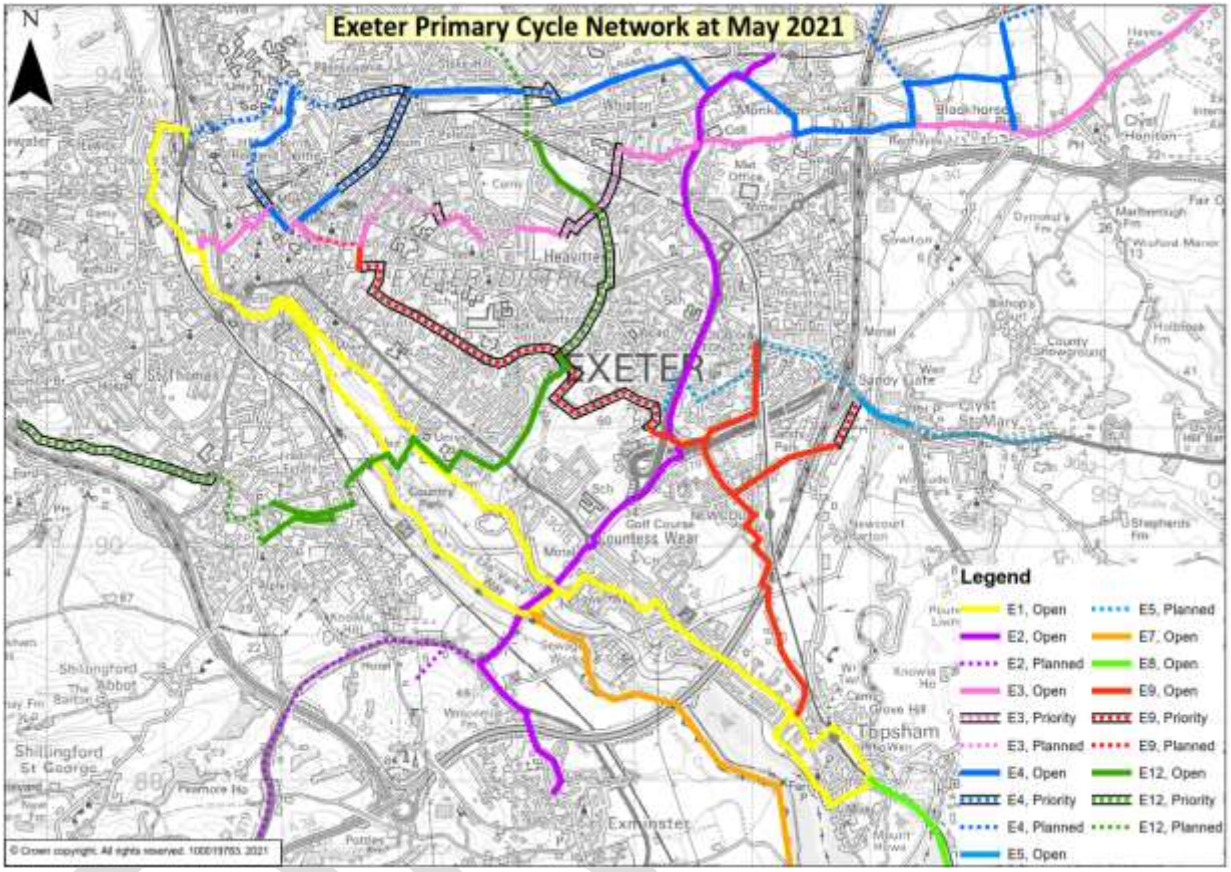

Figure 4-9: Existing and planned cycle route network

Question 8: Are there any other cycle schemes currently being developed by DCC and/or ECC we should reference?

4.2.2 The PCT includes a number of potential future scenarios for cycle growth, based on a range of assumptions. Figure 4-9 below shows the outputs for the "Go-Dutch" scenario, which assumes cycling increases to levels seen in the Netherlands, and an "E-bikes" scenario, which assumes that longer cycling trips become more viable due to increased use of electric propulsion. All of the scenarios show a similar distribution of cycle demand across the city.

Figure 4-10: PCT Future Scenarios, top 30% of rotues (Go-Dutch (left) and e-bikes (right))

4.2.3 Exeter has an electric bike hire scheme Co-Bikes. There are now over 100 bikes for hire at 15 sites across the city. E-bike journeys tend to be slightly longer than traditional cycle trips .

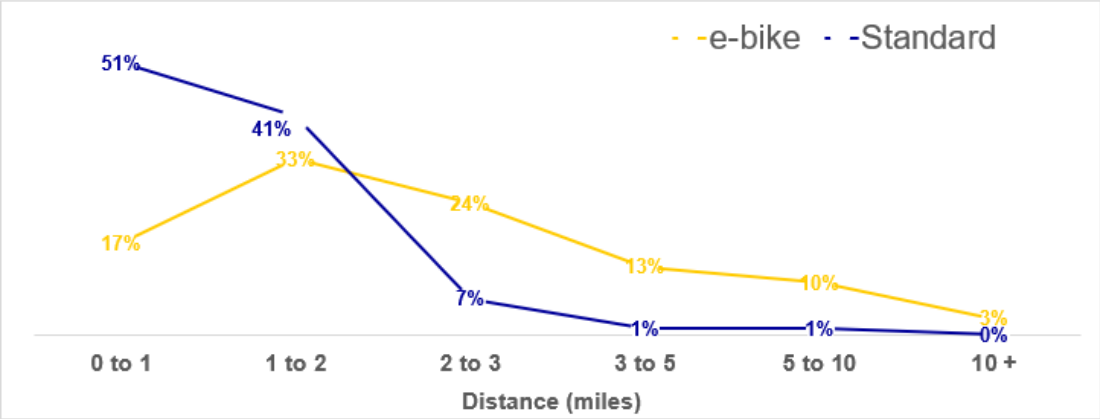

Figure 4-11: Trip length comparison of standard bikes and e-bikes

4.2.4 Another finding from the electric bike hire scheme is that there is a more equal gender split of trips. Across the UK, men make three times as many cycle trips and cycle four times further than women[11]. This is replicated locally in Travel Devon data which shows that men are more than twice as likely to cycle to destinations at Sowton Industrial Estate. Evidence from across the country shows that better infrastructure and improving safety is an important way to encourage men and women to cycle, with the most successful cycling cities in the UK such as Cambridge having a relatively even gender split.

[11] Source: National Travel Survey 2016

4.2.5 Figure 4-12 below shows requests for walking and cycling imrpovements via the national widenmypath website, many of which are focused around the central area and on key radial routes, reflecting places with some of the highest current levels of active travel. Some of the more popular comments include:

- *Super narrow pavenments [in Topsham town centre]…Space all given to parking and through traffic. Could be amazing if pedestrianised (45 votes)*
- *[Bridge Road] Make cycle/footpath priority over [Countess Wear Road] (44 votes)*
- *[Magdalen Road] should be car free to help small business and [reduce] pollution (43 votes)*
- *Install cycle lanes on the full length of Alphington Road (34 votes)*
- *Cycle lane required along Cowley Bridge Road to Avanti Hall Shool, and reduction in speed limit to 20mph (34 votes + several similar suggestions)*
- *There is no convenient cycling route from The Quay to the city centre. Close Quay Hill to motor vehicles and allow for two-way cycle traffic (33 votes)*
- *Very roundabout route from St Davids Station to Exeter city centre (32 votes)*

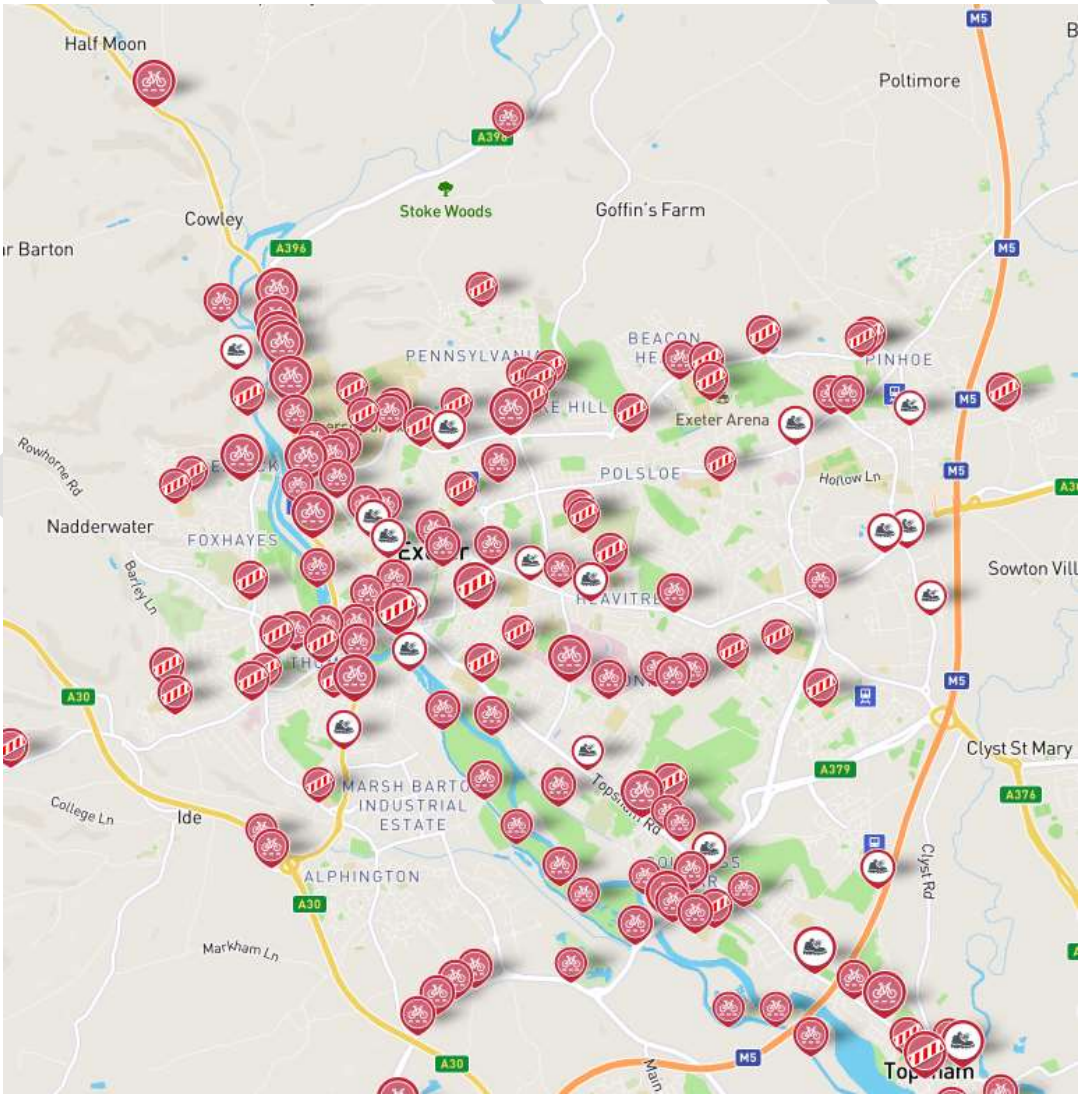

Figure 4-12: Requests for waling and cycling improvements made via the widenmypath website

4.3 Summary of challenges & opportunities

- Exeter has one of the highest levels of cycling in the country, but there is still significant potential for growth.
- The highest levels of cycling to work are along the Exe Estuary Trail between the city centre and Topsham and to the east of the city centre. Across the city there are pockets of high and low cycling to work adjacent to each other, indicating that localised circumstances are playing an important role in resident's travel choices.
- A large number of people who live and work in Exeter usually commute by car, particularly to and from Sowton Industrial Estate and the eastern fringe of the city. This is likely to be influenced by the ease of driving to Sowton, with good road connections and free and relatively unconstrained parking
- Highly trafficked roads are unattractive to travel along and cross for people cycling.
- Cycle routes tend not to be of a consistent standard, with an absence of obvious direct routes in some areas
- Topography (hilliness) is a significant barrier to making active travel trips for some people, particularly for journeys to and from locations north of the city centre
- Cycle casualties arising from road collisions are concentrated around the city centre and on key main roads including Cowick Street, Pinhoe Road, Topsham Road, Heavitree Road, and on the Mount Pleasant Road - Polsloe Road - Barrack Road corridor.
- There are opportunities to better integrate cycling with rail stations
- Increasing adoption of e-bikes may make topography less of barrier and increase the potential for longer distance cycling trips
- Men are more likely to cycle in Exeter than women
- Historic and contrained road network, with rivers and railway bridges causing severance in some areas

Question 9: Have we identified the key challenges and opportunities?

4.4 Origins & Destinations

4.4.1 The LCWIP Tehcnical Guidance states that identifying demand for a planned cycle network should start by mapping the main journey origin and destination points, as shown in Figure 4-13.

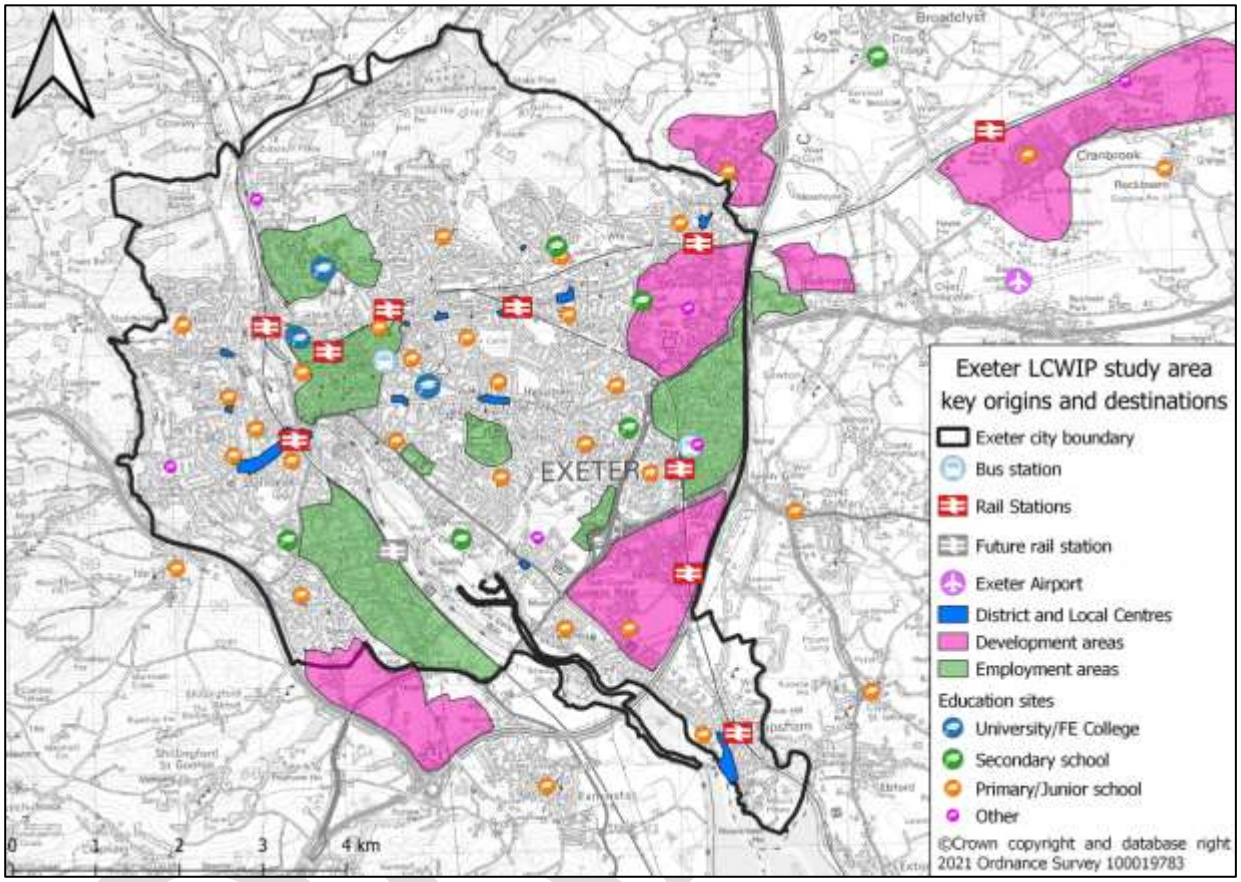

Figure 4-13: Origins and Destinations

Question 10: Have we identified the correct key origins and destinations? Are any missing?

4.5 Desire Lines

4.5.1 Desire lines are indicative links between origin and destination points. They do not, at this stage of the LCWIP process, need to follow existing roads or cycle routes. Specific routes are identified and assessed further on in the process.

4.5.2 An initial set of desire lines have been identified based on the current and future year scenarios in the PCT and the key origins and destinations identified. The first step was to overlay the PCT flows with the origins and destinations (Figure 4-14 and Figure 4-15). Existing and planned cycle infrastructure was then mapped (Figure 4-16), which highlights where there are current and future cycle movements that are not catered for by existing infrastructure.

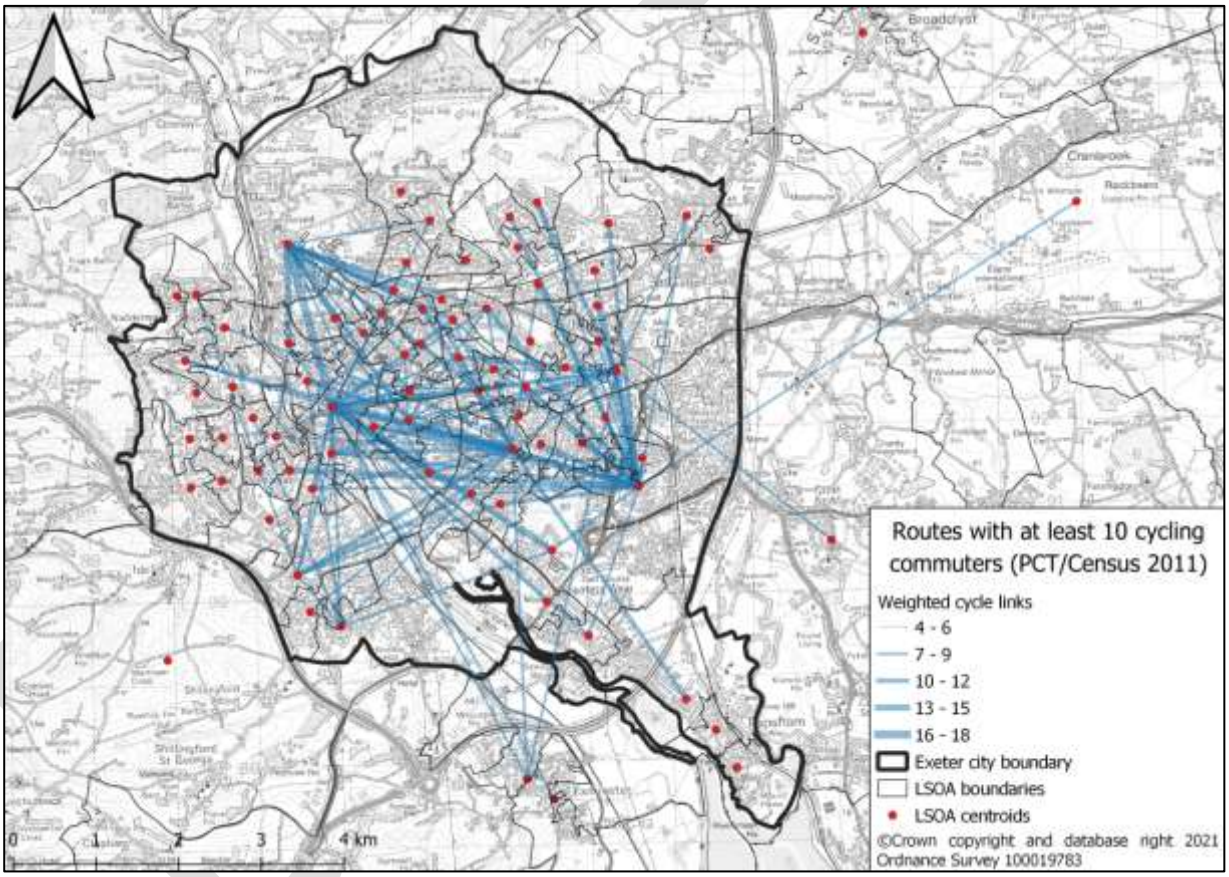

Figure 4-14: PCT straight line cycle flows (blue)

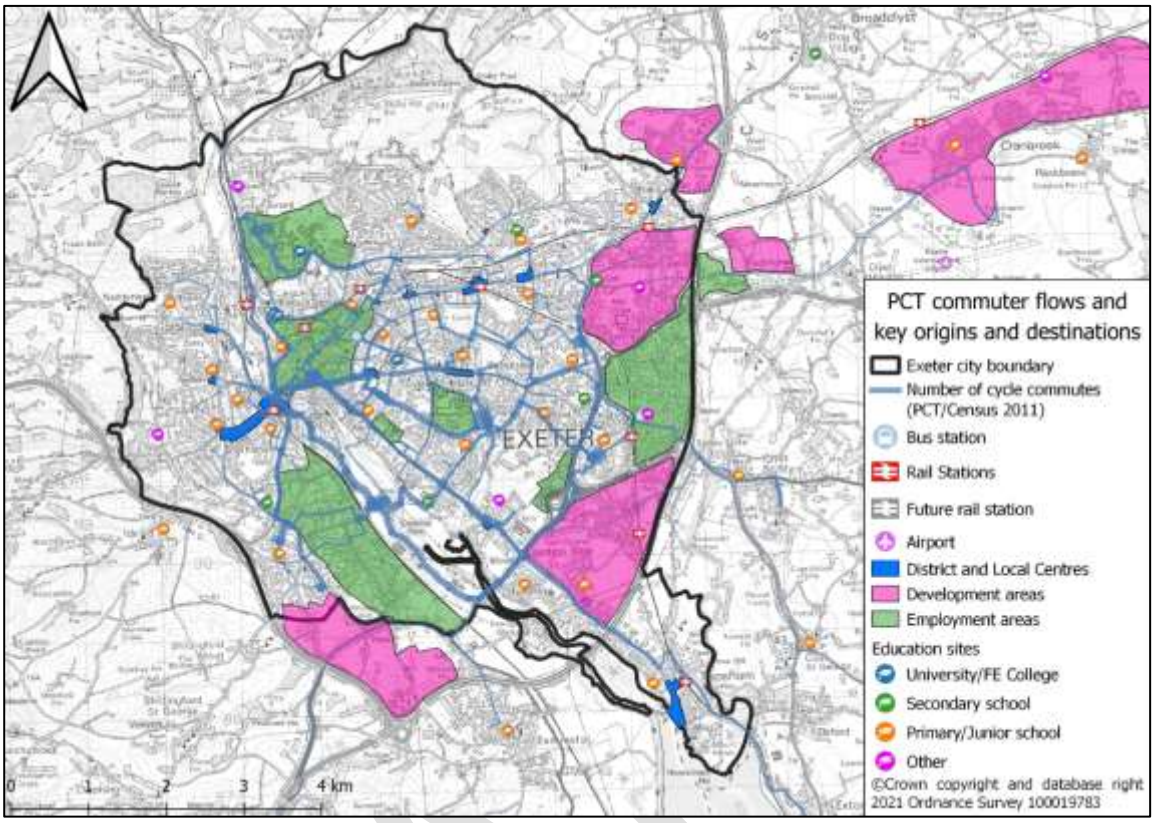

Figure 4-15: Origins and Destinations, with PCT flows (blue)

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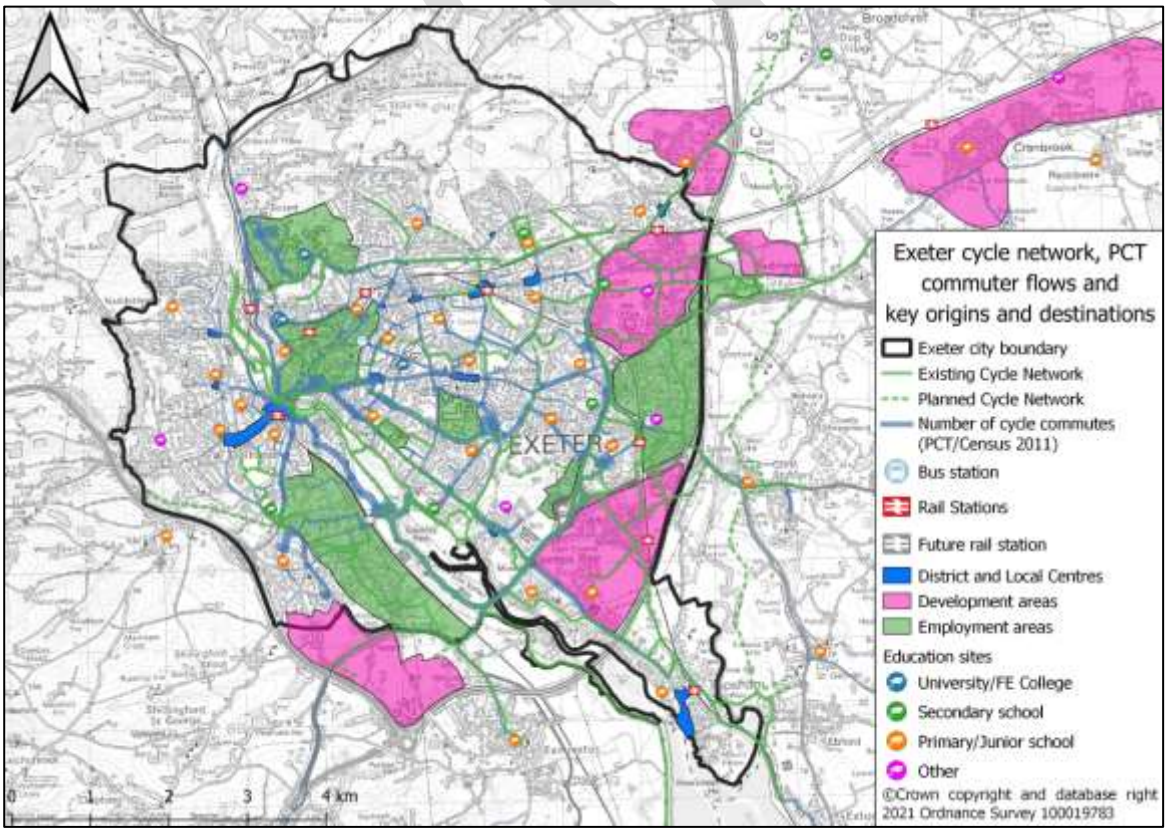

Figure 4-16: Origins and Destinations, with PCT flows (blue), existing (solid green) planned (dotted green) cycle network

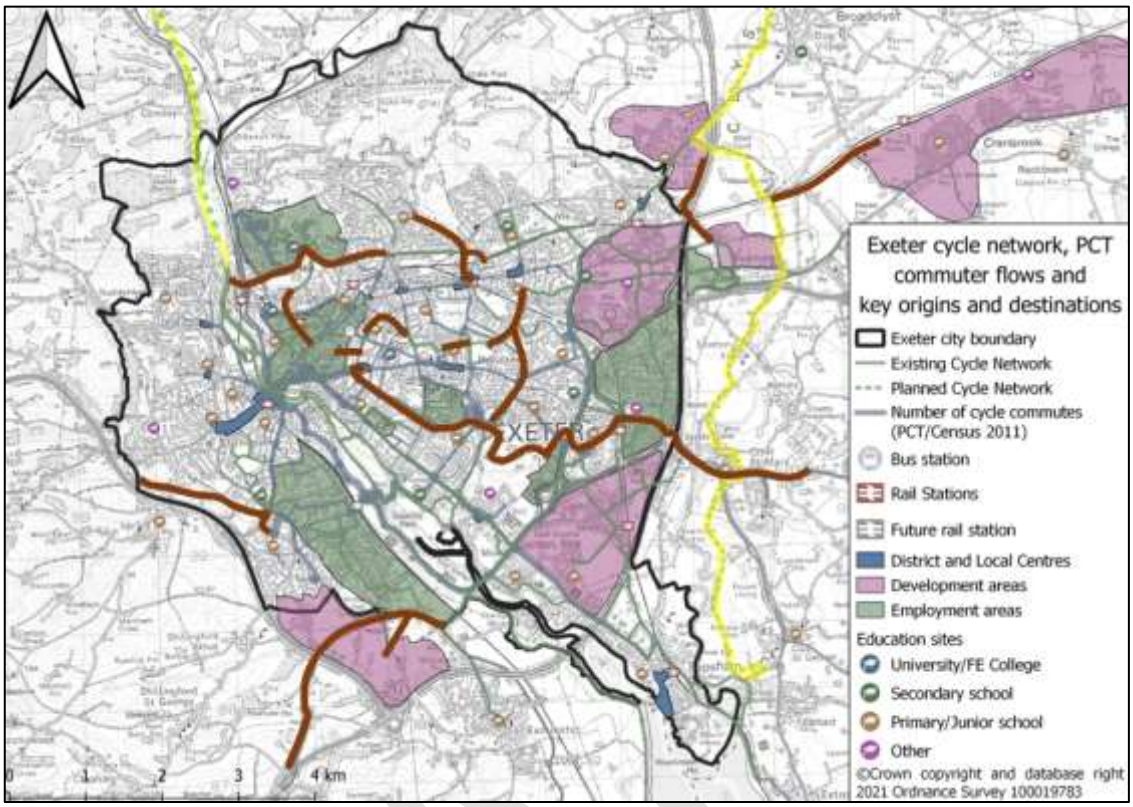

Figure 4-17: Origins & destinations, with PCT flows, existing/planned network, highlighting routes identified in the ETS 5 Year Action Plan (Brown & Yellow)

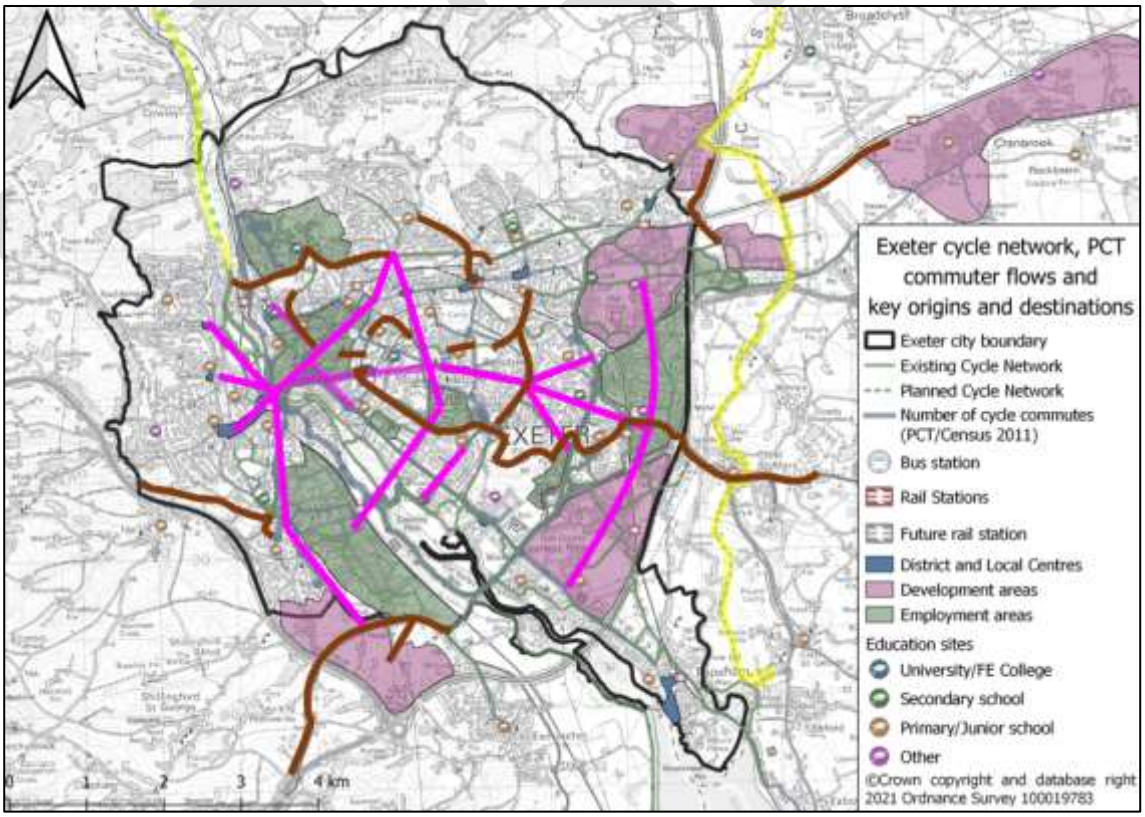

Figure 4-18: Origins & destinations, with PCT flows, existing/planned network, highlighting routes identified in the ETS 5 Year Action Plan (Brown & Yellow), and additional cycle desire lines identified (Pink)

4.5.3 This process identified a number of areas of focus for the Exeter cycle network. These include:

1. Further development of routes identified in the Exeter Transport Stratgey 5 year action plan
2. The city centre
3. South of the river, linking St Thomas, Alphington, Exwick, and Marsh Barton to each other and the city centre
4. Heavitree Road and connections
5. A complex and dense network of local routes to the east of the city centre, incorporating Newtown, Whipton, and Heavitree. These routes may be best served through an area wide approach such as a Liveable Neighbourhood, rather than route based approaches
6. Orbital north-south routes
7. Links to surrounding villages

4.5.4 An audit of existing routes (including planned improvements) would also identify additional improvements on these routes.

Question 10: Have we identified the correct cycling desire lines for further development?

4.6 Route development process

4.6.1 Having determined the priority areas of focus, the next phase of the process will be to identify actual routes and improvements to make the routes suitable for cycling.

4.6.2 A route auditing process will be undertaken. Routes will be assessed against the core design outcomes of being **coherent, direct, safe, comfortable and attractive**. A suite of plans showing the context of each corridor and the proposed improvements will then be developed, based on the latest design standards and guidance including Local Transport Note 1/20 Cycle Infrastructure Design.

5. NETWORK PLANNING FOR WALKING

5.1 Existing walking trips & issues

5.1.1 Walking is the second most popular mode of travel to work in Exeter, with volumes steadily increasing from 18% in 1991 to 22% in the 2011 census – accounting for approximately 12,500 daily trips. The highest numbers of people walking to work live in central areas of the city as shown in Figure 5-1 and 5-2. These high levels of walking in the central area are reflected in higher numbers of pedestrian casualities in the central area and along main roads (see Figure 5-3).

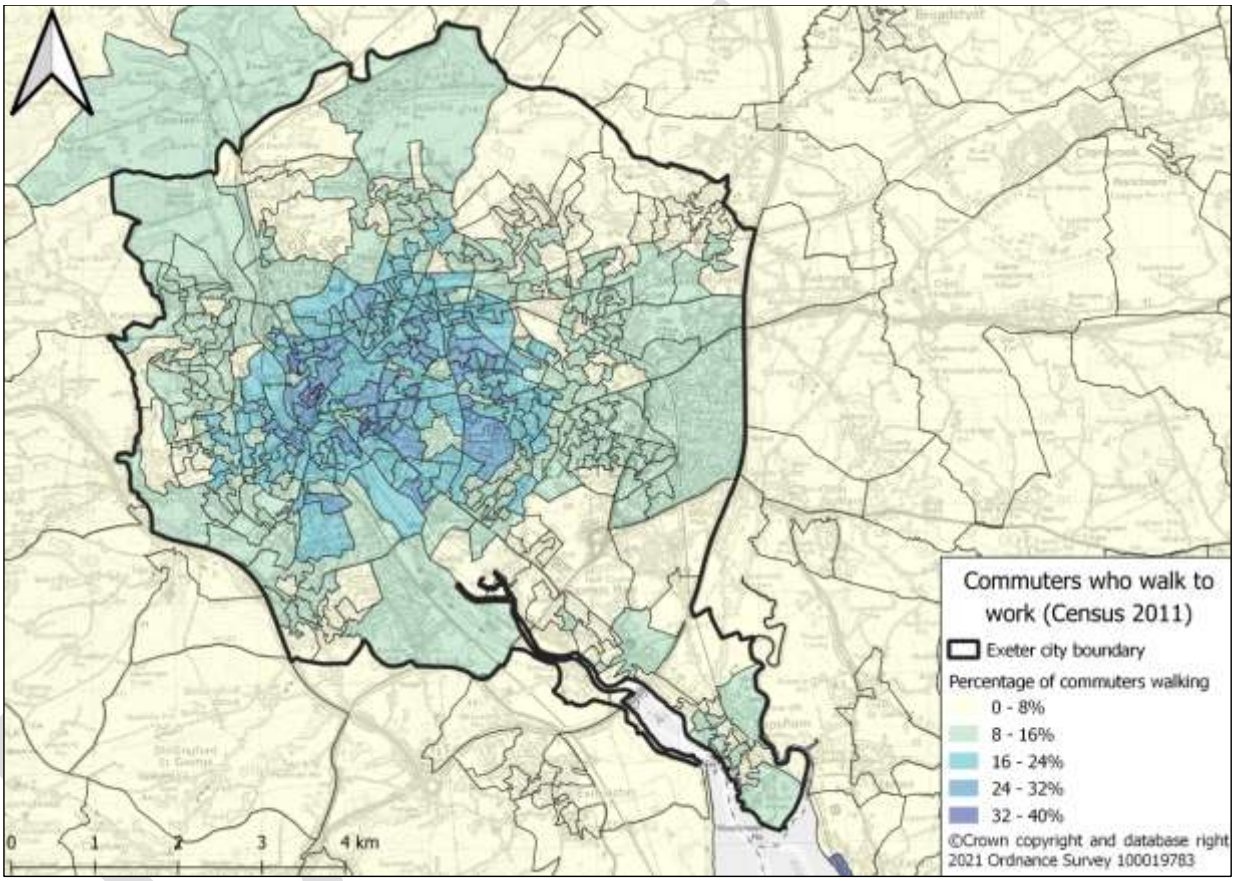

Figure 5-1: Commuters who walk to work (origins)

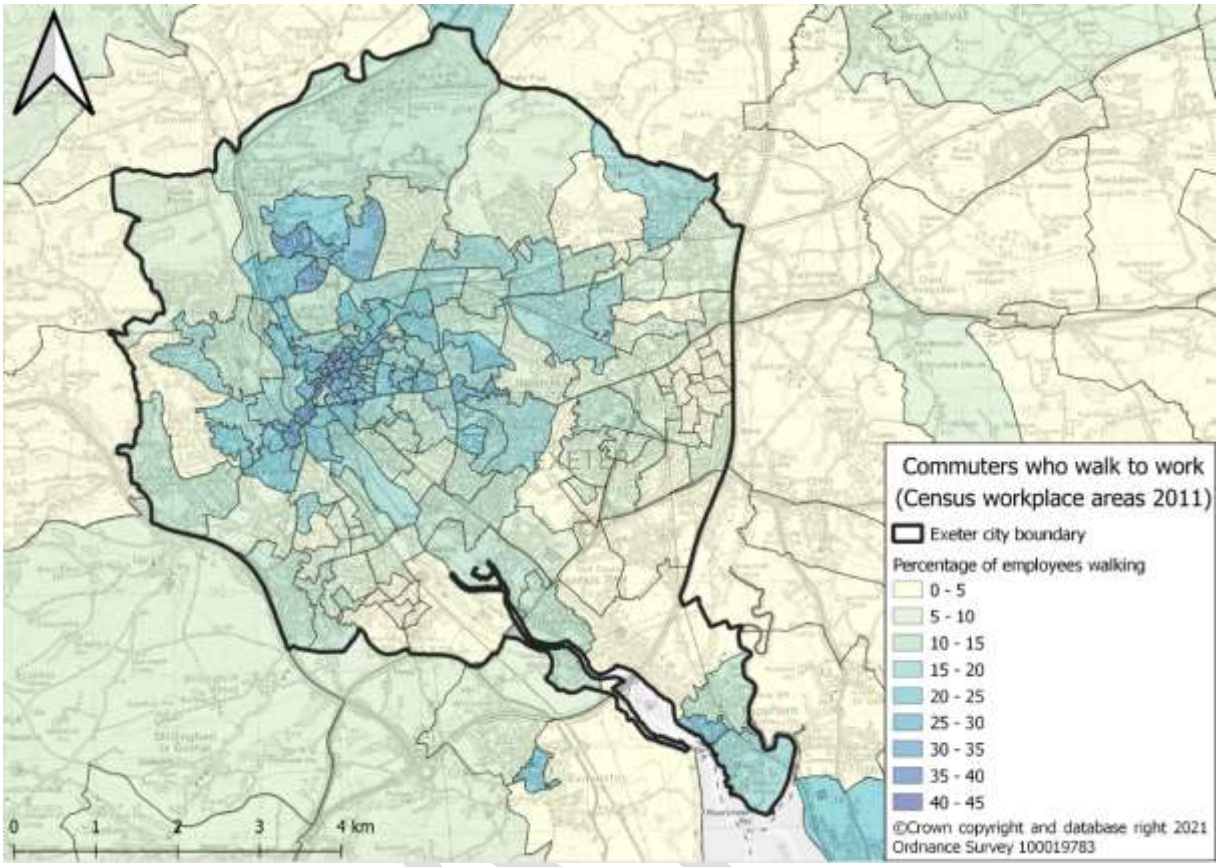

Figure 5-2: Commuters who walk to work (destinations)

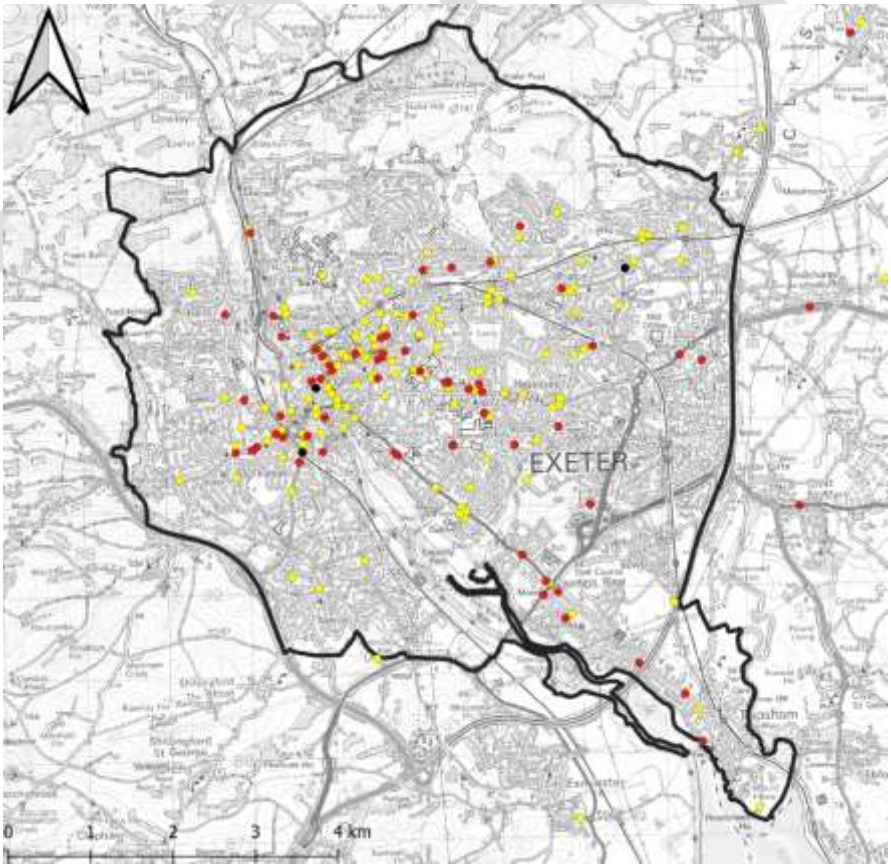

Figure 5-3: Reported pedestrian casualties (Source: STATS19)

5.1.2 It is notable that a smaller proportion of employed residents living west of the Exe usually walk to work despite the close proximity to the city centre and high density of population. This appears to highlight how major barriers to movement, such as the River Exe (and Exe Bridges) and topography, can potentially have an impact on mode choice. There are a limited number of crossing points of the river and railway which can make walking routes significantly longer.

5.1.3 As a general rule, the longer the trip, the less likely that it will be made by foot. The graph below shows the correlation between the percentage of commuting trips on foot with distance between MSOA areas in Exeter with more than 100 trips. The size of each circle denotes the absolute number of trips by all modes between each Origin – Destination (O-D) pair. The line of best fit shows an expected proportion of trips on foot in relation to distance. O-D pairs have then been colour coded to correspond with their performance in relation to the expected modal share.

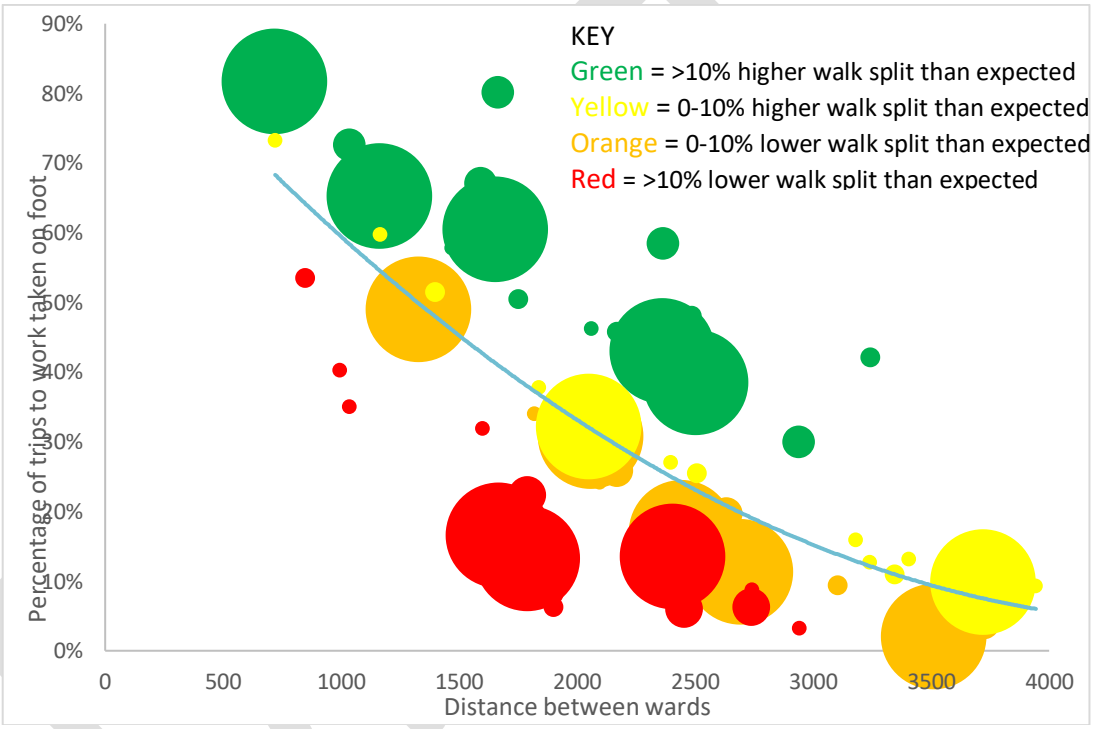

Figure 5-4: Relationship between distance and propensity to walk

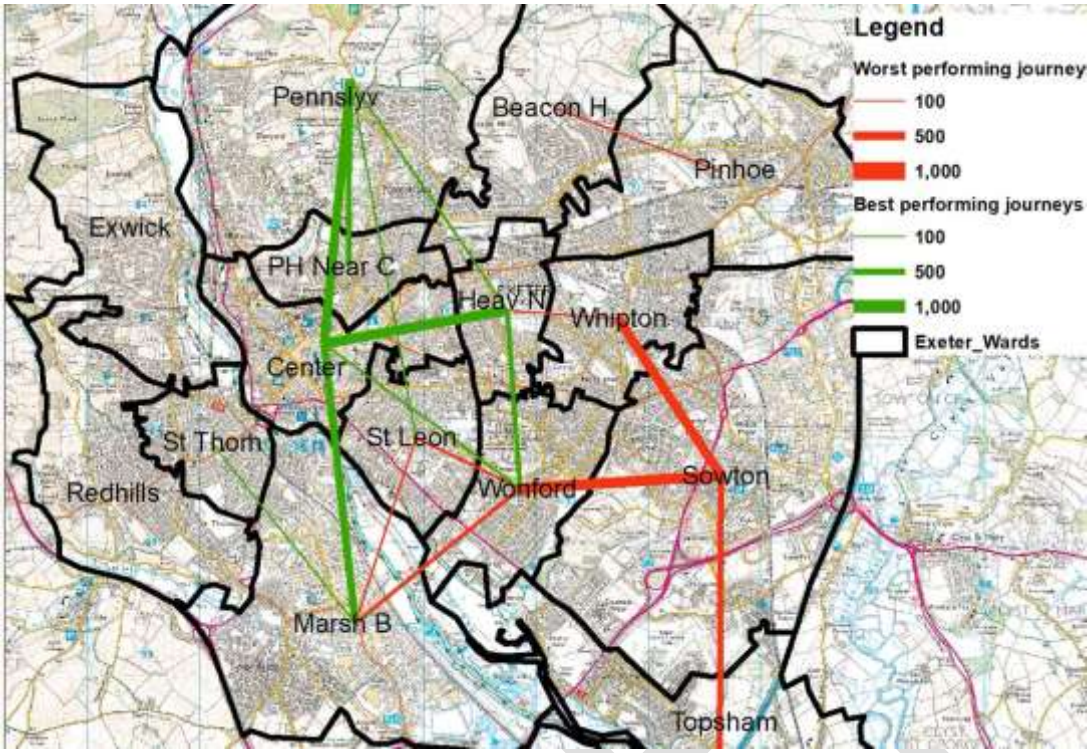

Figure 5-5: Best and worst performing commuter walking trips

5.1.4 The best and worst origin and destination pairs are shown in Figure 5-5. The figure shows the top 10 commuter walking routes (green) primarily emanate from the central wards in Exeter and the city centre.

5.1.5 There are key movements in the city less than 2.5km with a lower than average proportion of walking trips. The five worst routes all have a walk mode share which is 20% or less than the average walk mode share. The worst commuter walking routes highlight links between Sowton and, Whipton, Wonford, and Topsham, which is likely to be due to a range of factors including:

- Greater severance due to barriers including A roads, rail line, and the river
- Less attractive walking routes
- Lower density development with free and relatively unconstrained parking

5.1.6 Pedestrian intercept surveys in the city centre were carried out in 2010, enabling mapping of the journey origins and identification of the method of travel used for those journey. While this data is now very dated, it still offers a useful insight in to walking trips to the city centre.

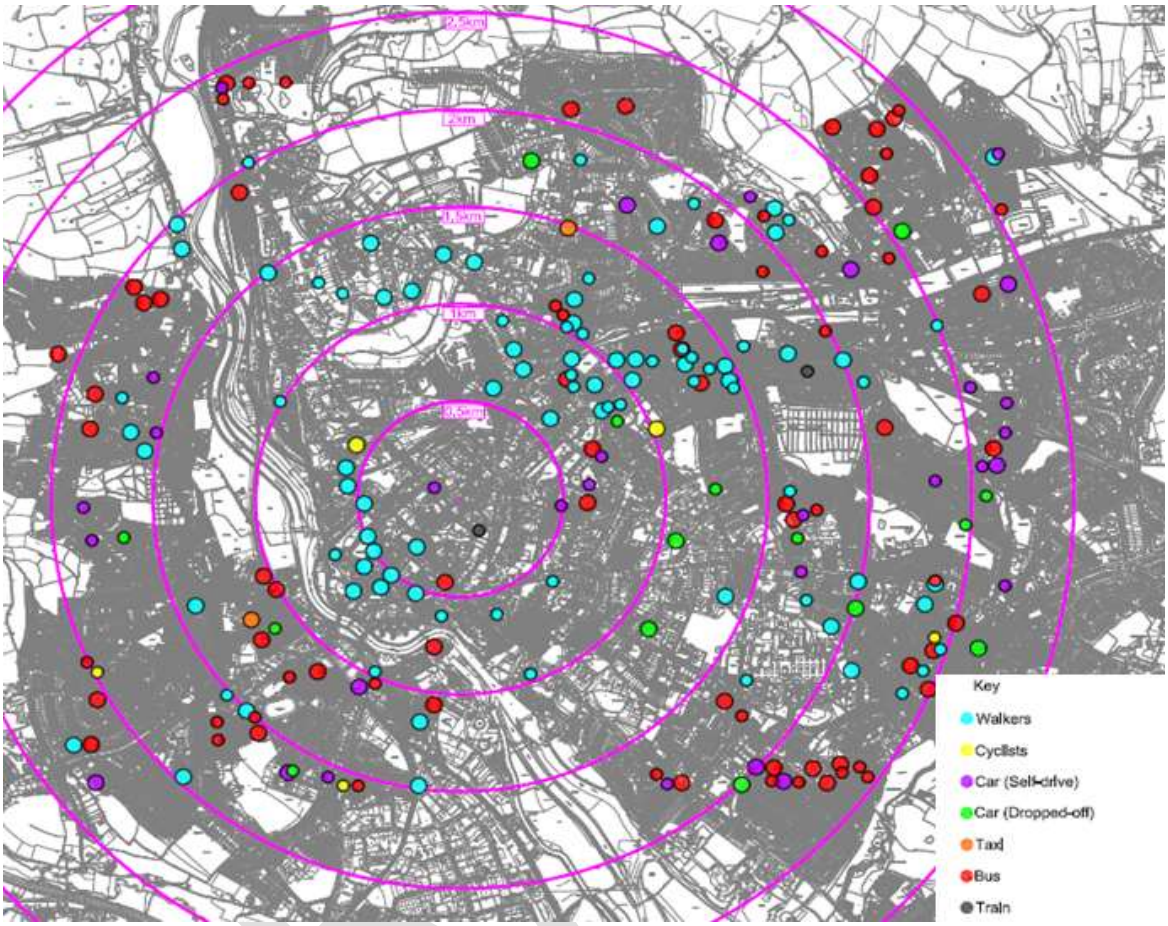

Figure 5-6: Postcode mapping by mode of trips to City Centre (Exeter City Centre Study 2010)

5.1.7 The plan shows that most people travelling shorter distances (<2km) walk to the city centre, with the survey identifying particular concentration of walking trips originating from the north and east of the city centre. However, the Topsham Road corridor, St Thomas, and Exwick have much lower levels of walking to the city centre, with the bus being a much more popular option for shorter trips for these residents. This may be due to less attractive walking routes and barriers caused by the River Exe and Western Way.

5.1.8 Analysis undertaken of commute mode splits from St Thomas to inform the Water Lane development, identified that despite the reasonably short distances of some of these trips, the car is still the main method of travel for trips to the RD&E Hospital, St Leonards, and the University. The lack of direct and attractive routes across the river, resulting in much longer walk and cycle distances would seem like a likely contributory factor in this.

Destination	Total Trips	Walking	Cycling	Public Transport	Car	Distance (km)
City Centre	**907**	50%	8%	20%	21%	1.2
St Leonards & County Hall	**120**	37%	13%	8%	43%	1.7
Duryard/ University	**92**	29%	15%	13%	42%	2.3
St Loyes & Hospital	**197**	14%	14%	23%	49%	2.9
Sowton & Digby	**428**	5%	10%	17%	68%	5.3

Figure 5-7: St Thomas Trip Distribution

Question 11: Is there any other walking data that should be included?

5.2 Origins & Destinations

5.2.1 As with cycling, the LCWIP Tehcnical Guidance states that identifying demand for a planned walking improvements should start by mapping the main journey origin and destination points, as shown in Figure 5-8.

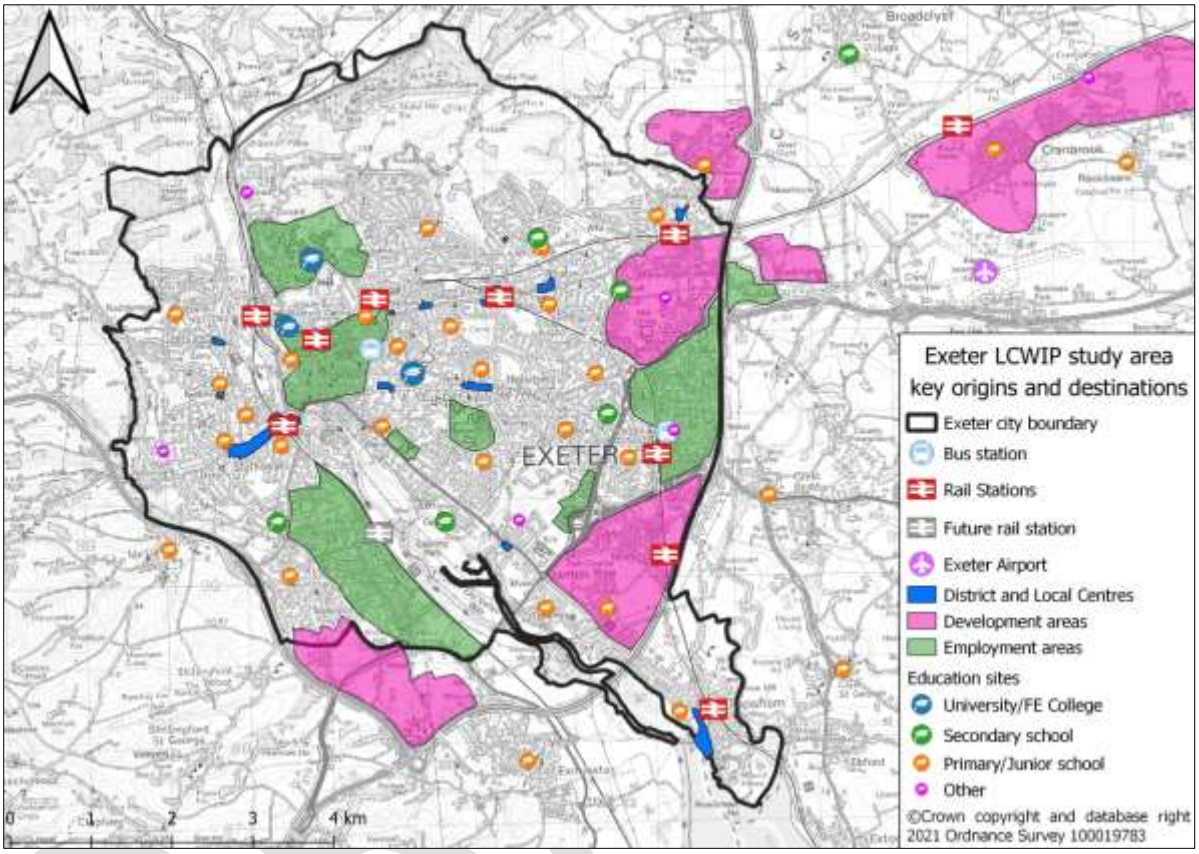

Figure 5-8: Origins and destinations

5.3 Identifying Core Walking Zones

5.3.1 The next stage of the LCWIP process is to identify “Core Walking Zones”, normally consisting of walking trip generators that are located close together – such as town centres or business parks.

5.3.2 Based on the findings of the policy review and data gathering exercise, and considering potential funding sources for infrastructure improvements, the following Core Walking Zone has been idenfied.

- City centre, as the main shopping centre for Exeter and the wider area, and a major employment hub

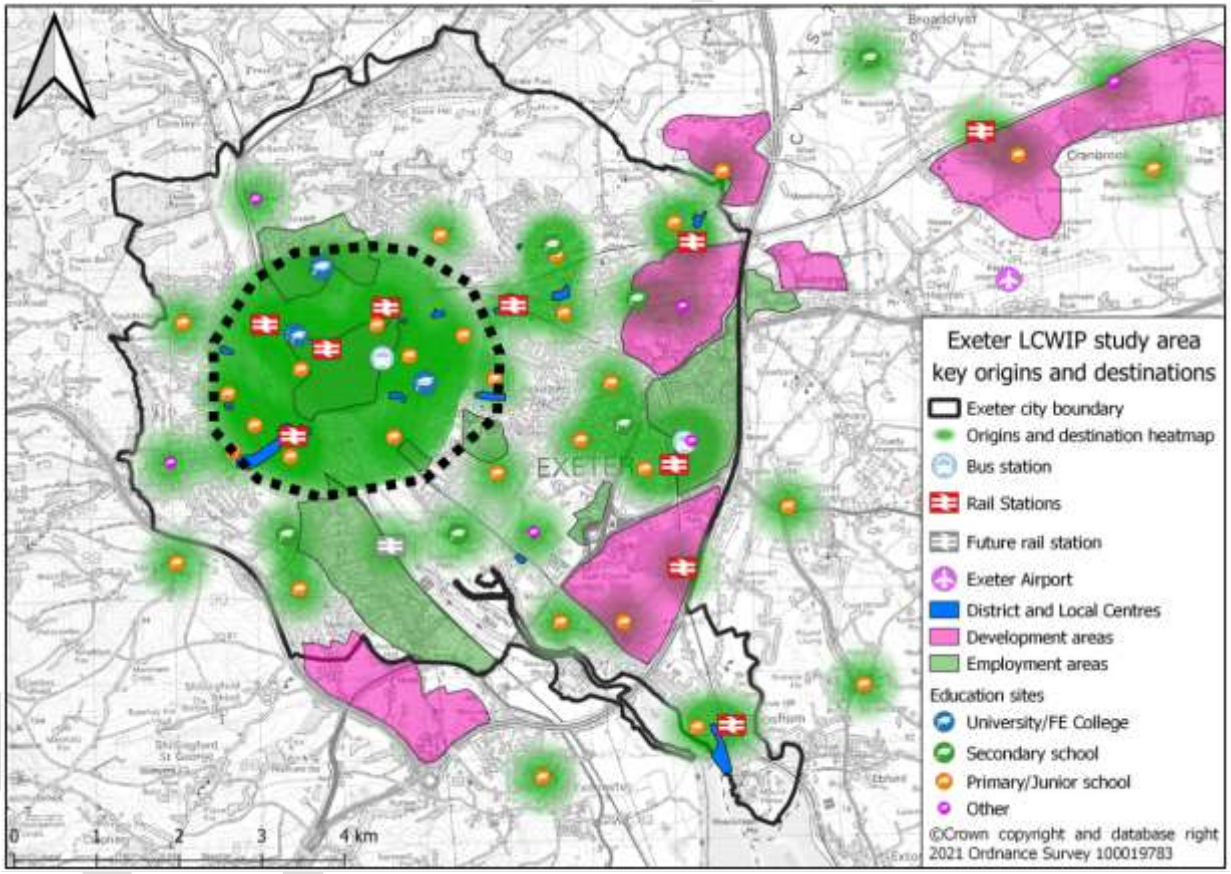

Figure 5-9: Core walking zone

5.3.3 Improving walking routes across the wider city area, including to/from local and district centres, schools, and other neighbourhood destinations will be considered through the Liveable Neighbourhood proposals detailed in the following section.

Question 12: Do you agree with the Core Walking Zone identified?

6. APPROACH TO DEVELOPING LIVEABLE NEIGHBOURHOODS

6.1 Introduction

6.1.1 Towns and cities across the UK are creating Liveable, or Low-Traffic, Neighbourhoods. These approaches were recently endorsed by central government in LTN 1/20 Cycling Infrastructure Design, published in 2020. Liveable Neighbourhoods deliver safer, quieter, less polluted and more pleasant streets. They provide the opportunity to create space for social activity, play and greening. Introducting Liveable Neighbourhoods leads to:

- more active travel;
- improvements in physical health & wellbeing; and
- greater opportunities for social interactions.

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

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

6.1.4 A strategic east-west cycle route across Exeter (E9) was delivered in 2020 as part of the Emergency Active Travel response to the Covid-19 pandemic. This was achieved by introducing four new modal filters at key locations to reduce through traffic in the city. Supported by partners, including the city's biggest single trip generator, the RD&E Hospital, the measures have created a safe and attractive route connecting residential areas with employment, open spaces and the city centre.

6.1.5 The current Sport England Local Delivery Pilot, a joing project involving both Exeter City Council and Devon County Council, will also be developing community-led active travel schemes across Newtown and Heavitree during 2021.

6.1.6 Both Devon County Council and Exeter City Council are keen to build on this progress, and further develop the concept of Liveable Neighbourhoods in Exeter as part of the LCWIP.

6.2 Principles of a low traffic neighbourhood

6.2.1 London Cycling Campaign and Living Streets developed a guide to low traffic neighbourhoods[12], which was further developed in the Bath & North East Somerset Council Low Traffic Neighbourhood Strategy[13]. These documents outline key principles including:

- **Size**: Low traffic neighbourhoods should include a group of residential streets, bordered by a main road. Ideally these streets should be walkable within 15 minutes (approximately one square km). The main roads bordering the area should be suitable to (and already carry) through traffic, bus routes, vans and

[12] https://londonlivingstreets.files.wordpress.com/2018/09/lcc021-low-traffic-neighbourhoods-detail-v9.pdf
[13] https://beta.bathnes.gov.uk/sites/default/files/2020-09/FINAL%20DRAFT%20LTN%20Strategy.pdf

lorries. An area that is too small could push through traffic onto other, equally unsuitable roads within a neighbourhood. It is not recommended to have low traffic neighbourhoods that include main through roads, however, where neighbouring 'cells' are separated by main through roads, it is vital to provide high-quality pedestrian and cycling crossings to connect them.

- **Location**: Successful low traffic neighbourhoods are often in close proxity to key amenities and services, and where possible these should serve as the focus of the area. The identifification of these elements within an area is crucial in order to understand travel patterns within a neighbourhood. Key amenities and services include locations such as: schools, doctors/hospitals, high streets, employment, sporting facilities, railway stations, supermarkets, places of worship, and community centres.
- **Infrastructure and interventions**: The types of traffic management controls typically used in low traffic neighbourhoods do not stop residents from being able to access their homes, nor delivery and service vehicles accessing dwellings and businesses when required. It is however likely to mean a slightly more indirect route if travelling by car. Interventions can be implemented on a trial or permanent basis.
- **Community engagement**: The local community should be actively engaged from the start of the process, including identifying issues and opportunities, through to co-designing elements and active feedback and monitoring. Engagement with "harder to reach" groups within a community is particularly important, including older people, families with young children, unemployed, people with disabilities, and people for who English is not their first language. Engagement can also be led by the community, as was undertaken in St Leonards. The St Leonards Neighbourhood Association have set up a webpage with a "traffic puzzle", asking residents to identify modal filters and one-way streets they'd like to see on a simple map of the area [14]

6.3 Proposed approach

6.3.1 It is essential to engage with the community at the earliest opportunity to inform the development of Liveable Neighbourhoods in Exeter. The LCWIP will therefore seek to develop an initial evidence evidence base and identify potential areas for intervention. The public consultation for the LCWIP will then be used to gather feedback on the potential areas and start the conversation about the interventions people would like to see, in advance of future projects to develop the individual schemes in more detail. We will:

- **Set out the benefits of Liveable Neighbourhoods**, providing examples from elsewhere on the positive outcomes they can achieve for local communities.
- **Develop an evidence base** that can be used to develop Liveable Neighbourhoods in future. This will add to the data contained in this background report and include:
  - Main road network (A and B roads)
  - Key amenities and services
  - Road safety and air quality data
  - Number of school pupils
  - Evidence of through traffic (rat-running) if available
  - Levels of deprivation
  - Public transport routes

- Parks & open spaces
- Existing information on issues and opportunities
- Pre-existing local community support and action

- **Identify potential areas for Liveable Neighbourhoods** covering the entire city. We will identify discrete areas bounded by main roads (e.g. A and B roads) that may be suitable to progress as individual Liveable Neighbourhoods, to present for stakeholder and public feedback during consultation. We will explore rating each area (e.g. Red, Amber, Green), based on its suitability for a Liveable Neighbourhood approach based on the evidence gathered and fit with wider plans and policies.

6.3.2 The information outlined above would then be released with a consultation draft of the LCWIP, inviting residents and other stakeholders to provide feedback and confirm the potential areas. Respondents will also be asked to provide ideas for future interventions within these areas, that can be used to develop more detailed proposals when each area progresses.

Question 13: Do you agree with our proposed approach to progressing Liveable Neighbourhoods through the LCWIP?

[14] Source: http://www.slna.org.uk/Traffic%20Puzzle.html

7. NEXT STEPS

7.1 Stakeholder feedback and preparation of Draft Exeter LCWIP

7.1.1 We will incorporate feedback from stakeholders on this Background Report, including confirming the cycling desire lines, Core Walking Zones, and approach to delivering Liveable Neighbourhoods. This will complete Stage 1: Determining the scope, and Stage 2: Gathering information, of the LCWIP process.

7.1.2 We will then build on the evidence in this Background report to complete the following stages, the initial stages or which are included in this Background report:

- Stage 3: Network planning for cycling – identify origin and destination points and cycle flows. Convert flows inot a network of routes and determine the type of improvements required.

- Stage 4: Network planning for walking – identify key trip generators, core walking zones and routes, audit existing provision and determine the types of improvements required.

7.1.3 Stakeholder workshops will then be held to review the detailed improvements recommended. Using the data gathered and feedback from stakeholders we will also complete:

- Stage 5: Prioritising improvements – prioritise improvements to develop a phased programme for future investment

7.1.4 A draft Exeter LCWIP for consultation and a summary LCWIP document will be produced, with the intention to progress to public consultation in Autumn 2021.

7.2 Public consultation, adoption, delivery & integration

7.2.1 Feedback from the public consultation will be incorporated into a final Exeter LCWIP document, and put forward for adoption by Devon County Council and Exeter City Council. The councils will then need to complete:

- Stage 6: Integration and application – integrate outputs into local planning and transport policies, strategies, and delivery plans

7.2.2 Due to the nature of local authority funding, there will be a need for a flexible delivery approach, adapting to changing circumstances and opportunities. Schemes indentified will be need to secure funding and undertake further engagement, consultation, and design work before they can be delivered.

7.2.3 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.

Question 14: Do you have any other comments?