City of York Local Cycling and Walking Infrastructure Plan
GB01T22H32

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# LCWIP BACKGROUND EVIDENCE REPORT

SYSTRA

# CITY OF YORK COUNCIL LCWIP

BACKGROUND EVIDENCE REPORT

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| **1** | Author | J Walker | Assistant Consultant | 24/01/2023 | |
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| **2** | Author | J Walker | Assistant Consultant | 14/03/2023 | |
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# TABLE OF CONTENTS

## LIST OF FIGURES

## LIST OF TABLES

# 1. INTRODUCTION

## 1.1 General

1.1.1 City of York Council has commissioned SYSTRA Consultants to develop a comprehensive Local Cycling and Walking Infrastructure Plan (LCWIP) that will build upon the initial LCWIP Scoping Study completed in July 2020 and meet future funding requirements for Active Travel England.

1.1.2 The LCWIP aims to provide a long-term plan for the delivery of cycling, walking and wheeling interventions that will maximise the uptake of active travel, building upon evidence of existing travel patterns and the impact of future developments and transport schemes. The LCWIP will be complementary to the Council's existing and emerging policies and programmes, focused upon an ambitious commitment to active travel to deliver key outcomes including, but not limited to, supporting the York Local Plan, the Local Transport Strategy and emerging Local Transport Plan 4, and local Climate Change, Economic and Health Strategies.

1.1.3 Active Travel England has stated that they wish to prioritise initial spending in those areas where there is evidence that investment will deliver benefits, and that this investment will meet the needs of under-represented groups such as women, children, and mobility impaired users by maximising safety and providing high quality walking, cycling, and wheeling facilities which meet (or exceed) design outcomes in the latest LTN1/20 design guidance.

## 1.2 LCWIP Guidance

1.2.1 The LCWIP is the recommended approach developed by the Department for Transport and supported by Active Travel England to help local authorities plan walking and cycling networks. LCWIPs form a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and walking networks and form a vital part of the Department for Transport's (DfT) strategy to increase the number of trips made on foot or by cycle.

1.2.2 The key outputs of LCWIPs are:

- A network plan for walking and cycling which identifies priority routes and core zones for further development;
- A prioritised programme of infrastructure improvements for future investment; and
- The underlying analysis and narrative which supports the identified improvements and network.

1.2.3 The LCWIP process includes six stages, as set out in Table 1.

Table 1. LCWIP Process

| STAGE | NAME | DESCRIPTION |
|---|---|---|
| 1 | Determining Scope | Establish the geographical extent of the LCWIP, and arrangements for governing and preparing the plan. |
| 2 | Gathering Information | Identify existing patterns of walking and cycling and potential new journeys. Review existing conditions and identify barriers to cycling and walking. Review related transport and land use policies and programmes. |
| 3 | Network Planning for Cycling | Identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the type of improvements required. |
| 4 | Network Planning for Walking | Identify key trip generators, core walking zones and routes, audit existing provision and determine the type of improvements required. |
| 5 | Prioritising Improvements | Prioritise improvements to develop a phased programme for future investment. |
| 6 | Integration and Application | Integrate outputs into local planning and transport policies, strategies, and delivery plans. |

## 1.3 Determining Scope

1.3.1 This report will address stage 2 and part of stages 3 and 4 of the LCWIP process, whilst also setting up stages 5 and 6. The second stage involves reviewing relevant local policies and strategies with which the LCWIP should align, collating information on the existing networks and journeys and identifying trip generators, both existing and planned. Stages 3 and 4 addressed in this report include identifying core walking zones and prioritising routes within the cycle network.

1.3.2 The next stage of the project will audit the main routes, identify barriers to walking and cycling, present concept design ideas for key routes, and undertake stages 5 and 6 of the LCWIP process.

## 1.4 Consultation

1.4.1 This baseline report, including the proposed cycle network and locations for more detailed cycling and walking interventions have been subject to consultation with local stakeholders. These stakeholders include local councillors, parish councils, York Cycle Campaign, Walk York and other organisations with an interest in promoting active travel.

1.4.2 Public consultation on concept designs for priority pedestrian and cycle improvement schemes will be undertaken following the local elections in May 2023. Some of the findings

in the baseline report may be included in the consultation exercise for the next Local Transport Plan, later in 2023.

## 1.5 Report Structure

1.5.1 Following this introductory section, the remainder of this Background Evidence Report is structured as follows:

- **Section 2: Policy Review** – Provides an overview of relevant current and emerging national, regional and local policies and strategies that need to be considered when developing parking policy.
- **Section 3: Baseline Conditions** – Details current transport conditions and provision across York.
- **Section 4: Development of the Cycle Network** – analysis of cycle demand, identification of cycle network that serves main desire lines and prioritise these routes.
- **Section 5: Development of Core Walking Zones** – identification of core walking zones and walking routes.
- **Section 6**: **Further Reading** – Useful references.

# 2. POLICY REVIEW

## 2.1 General

2.1.1 To establish the context for the LCWIP across York, a comprehensive review of current and emerging policy and strategy documents related to development and transport and current active travel schemes has been undertaken.

2.1.2 The documents considered in the Policy Review are shown in Figure 1.

**Figure 1. Policy Review Documents**


## 2.2 National Policy Documents

### Gear Change: A Bold Vision for Cycling and Walking (2020)

2.2.1 This document, published by the DfT, sets a goal that cycling, walking (and wheeling) will be the natural first choice for most short journeys, with half of all journeys in towns and cities being cycled or walked by 2030. This will occur through a travel revolution in our streets, towns, and communities in which places will become truly walkable. The report sets out actions required at all levels if Government is to make this goal a reality, under four overarching themes:

- Theme 1: Better streets for cycling and people;
- Theme 2: Putting cycling and walking at the heart of transport, place-making and health policy;
- Theme 3: Empowering and encouraging local authorities; and
- Theme 4: Enabling people to cycle and protect them when they cycle.

2.2.2 Better streets for cycling and people refer to: *a requirement for on-road cycle tracks separated from traffic; cycle, bus and walking corridors; more low traffic neighbourhoods to prevent rat-running; more school streets; and improvement of the National Cycle Network to make it entirely off road or traffic-calmed by 2040.*

2.2.3 Putting cycling and walking at the heart of transport refers to: place-making and health policy: increasing spending on cycling and walking; ensuring that new road schemes include appropriate cycling provision; smoothing the integration of cycling with public transport; increased cycle parking; and promoting cycling for freight.

2.2.4 Empowering and encouraging local authorities refers to: improved capacity and assistance for local authorities; channelling most of the allocated funds through local authorities; the development of new body, Active Travel England, which will inspect and approve schemes, and review major planning applications.

2.2.5 Enabling people to cycle and protect them when they cycle refers to: safe cycle training; combat bike theft by consolidating ownership registers; and changing the Highway Code to protect vulnerable road users.

**The Cycling and Walking Investment Strategy – Report to Parliament (2020)**

2.2.6 The Cycling and Walking Investment Strategy (CWIS) sets a range of short-term goals to meet the Government's ambitious plan of half of journeys to be made by walking and cycling by 2040. Most notably, by 2025, the Government aims to double cycling, increase walking activity and increase the number of children walking to school to 55% (from 49% in 2014).

2.2.7 The report reviews the progress of actions set to be achieved between April 2016 and March 2019. The major outputs noted in the review include: 912,349 people completed cycle training, 13,112 new or upgraded cycle parking spaces, 2,096 new or upgraded cyclists and pedestrian crossings and 129 rail stations benefitting from cycle improvements and facilities. An update of this paper, Cycling and Walking Investment Strategy 2 was published in July 2022, that incorporates the latest government funding commitments.

**Local Transport Note 1/20 – Cycle Infrastructure Design (2020)**

2.2.8 This Local Transport Note (LTN1/20) provides guidance and good practice for the design of cycle infrastructure, in support of Gear Change. It explains the five core design principles, which represent the essential requirements to achieve more people travelling by cycle or on foot, based on best practice. Networks and routes should be coherent, direct, safe, comfortable and attractive. Infrastructure must be accessible to all, and the needs of vulnerable pedestrians and local people must be considered early in the process to ensure schemes are supported locally in the long term.

Planning for cycling should be based around providing a network of on- and/or off-carriageway routes that are suitable for all abilities. Subject to topographical constraints, the aim is to create a densely spaced network so that all people can easily travel by cycle for trips

within and between neighbourhoods. Developing a network plan should follow a process of thinking about the people who make trips, the places that they go and the journey purpose to pursue a demand-led approach to cycle infrastructure provision.

## 2.3 Local Policy Documents

**York Local Transport Strategy 2023-33 (DRAFT)**

2.3.1 Active travel will be a critical component of the city's forthcoming transport strategy. This will be presented within the next Local Transport Plan which is due for public consultation later in 2023. The strategy also supports the Climate Change, Economic and Health strategies by providing clean, sustainable, lower cost travel options, enabling residents to be physically active and to access jobs and other opportunities in the city.

2.3.2 There is strong public support for a transport strategy which helps to deliver a 70% reduction in carbon emissions. This will require at least a *doubling of walking and cycling levels* in the city, alongside other measures to reduce car use.

2.3.3 In the citywide 'Our Big Conversation' survey in 2021, 78% of residents wanted well-lit walking routes at night and 76% wanted safer cycle routes. The steady fall in traffic entering the city centre, particularly at peak commuting times, means that there are now opportunities to reallocate road space in favour of sustainable travel modes and deliver high quality, safe cycling and walking routes.

**York Local Cycling and Walking Infrastructure Plan Scoping Report (2020)**

2.3.4 The York LCWIP Scoping Report presents a series of high-level analyses to support the development of a full LCWIP for York. The report draws on both local and national data to establish current and future levels of participation in active travel in York.

2.3.5 Despite the general view that York is a 'cycling city', the report presents evidence that between 2015 and 2018, 'over 70% of York residents' did not cycle[1]. Cycling has declined in recent years in the city: 53 local authorities currently have a higher proportion of adults cycling five times a week, and for most the rate is growing, in contrast to the decline in York.

2.3.6 The report then suggests 9 potential objectives for the York LCWIP. These objectives include reversing the decline in cycling levels in York and promoting and facilitating multi-modal trips. In addition, the scoping report highlights the need to minimise potential conflict between user groups where major cycling and walking destinations coincide. Finally, the report suggests that the installation of infrastructure to support active travel should be prioritised in areas where there is a known higher safety risk.

[1] Changes in York adults' cycling and walking participation 2015-2018; DfT Tables CW0302, CW0303 (2019)

**York Climate Change Strategy: A City Fit for the Future: 2022-2032 (2022)**

This strategy was developed to set out the vision for net zero and to provide a framework to both reduce carbon and be more climate resilient. Fundamental to this is an increase in the uptake of active travel and an acceptance that this will lead to happier and healthier communities, reducing pressure on local health services.

During the stakeholder engagement process respondents were clear that there was a strong desire for change and improvement, particularly around transport, but that any changes should be equitable and beneficial to everyone.

**York Health and Wellbeing Strategy 2022-2032 (2022)**

One of the key ambitions of this strategy is to equalise good health across the city. By reducing levels of sedentary behaviour and increasing physical activity by 5% across the whole population, 4 in 5 adults in the city could be classed as physically active by 2032. Active travel is a fundamental mechanism to achieving this as it is largely open to all and offers clear physical and mental health benefits.

**York Economic Strategy: 2022 to 2033 (2022)**

2.3.7 The York Economic Strategy: 2022 to 2033 aims to support: a prosperous, progressive, and sustainable city, giving the highest priority to the wellbeing of its residents, whilst protecting the fabric and culture of this world-famous historic city.

2.3.8 The strategy draws attention to the role of transport infrastructure in 'building inclusive, healthy and sustainable communities' and supporting 'thriving businesses.

2.3.9 One of the key objectives laid out in the strategy is: improving public and active transport to employment sites through the Local Transport Plan, which includes increasing levels of active travel to work and increasing secure cycle parking provision.

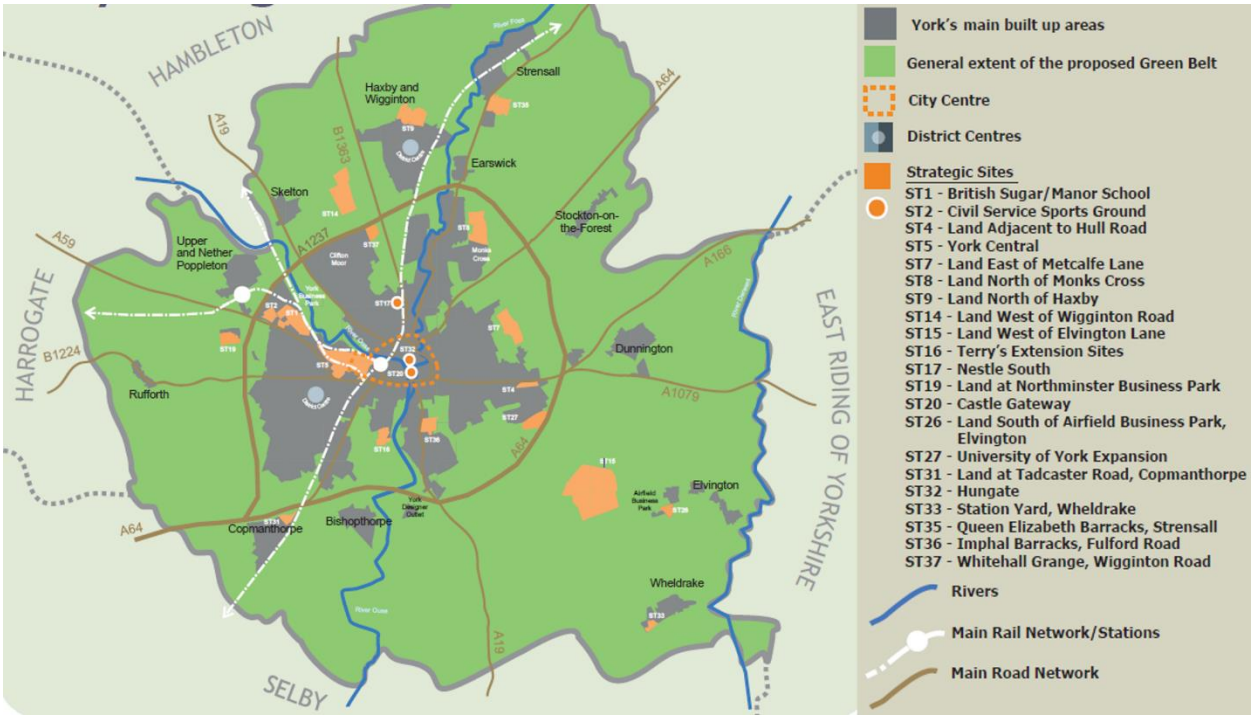
**City of York Local Plan – Publication Draft (2018)**

2.3.10 The City of York Local Plan – Publication Draft covers the period from 2017 to 2032/33 (2037/38 for Green Belt boundaries). The Local Plan aims to set out a clear pathway for future development to provide jobs, housing and supporting services, and to facilitate new infrastructure to ensure that these developments are sustainable. Amongst the policies outlined in the publication draft is a policy ensuring that there are efficient and affordable transport links.

2.3.11 Delivery of sustainable transport measures will ensure that: transport is progressively decarbonised, the Council's health and wellbeing agenda can be supported through the promotion of active travel and that environmental improvements to the public realm can be achieved.

2.3.12 The largest housing and employment site allocations have been included in the LCWIP network analysis in this report. Figure 2 below illustrates the locations of the strategic housing and employment sites in the local plan:

**Figure 2. Strategic Sites Local Plan (2018)**




**York City Centre Access Study – City of York Council (2021)**

2.3.13 Martin Higgitt Associates was commissioned by CYC to examine access issues for disabled people, pedestrians, and cyclists. The aim of this study was to identify appropriate access arrangements and physical measures which would improve access.

2.3.14 York's Footstreets operate as a pedestrian zone from 10.30am until 5pm in the evening. The Footstreets represent one of the largest, contiguous pedestrian zones in the whole of the UK. Some of the approaches to the Footstreets from key arrival points are challenging, with sub-standard footways, street clutter or inadequate safe crossing points of surrounding roads.

2.3.15 There has been a longstanding ambition to reduce the level of traffic intrusion in the Footstreets to:

- Protect the heritage of the city centre;
- Provide a more pleasant environment for visitors, shoppers and other city centre users;
- Support economic ambition of city centre for retail, hospitality and visitors; and

- Improve air quality.

2.3.16 The document makes recommendations on the future design of the Footstreets, including recommendations for cross city centre cycle routes and the design of approach routes.

**York Physical Activity and Sport Strategy – 2022-2032 – City of York Council (2022)**

2.3.17 The ambition of the strategy is: improving the mental and physical wellbeing of citizens and reducing inequalities in York by promoting a culture of physical activity.

2.3.18 The strategy highlights that York generally scores above the national average for 'health, wellbeing and happiness', but that the least deprived wards have significantly lower health and wellbeing outcomes, particularly for life expectancy.

2.3.19 Evidence has shown that over time, York has continually been one of the most 'active' places within North Yorkshire and the country. However, as of 2021 roughly 26% of the population were classed as 'inactive'[2]. Citizens who *'have a disability or long-term health condition, are from an ethnically diverse community, or are female'* are the most likely to be inactive. Physical activity levels have also been shown to decline with age.

**A Transport Strategy for York – York Civic Trust (2022)**

2.3.20 York Civic Trust is assisting City of York council in their update of the Local Transport Plan for York as part of a wider Transport Advisory Group. A Transport Strategy for York summarises the proposals made by the York Civic Trust as part of this work. The report suggests that to meet the council's carbon reduction target, a *'20% reduction in travel by car' is required.*

2.3.21 The report also draws on case studies from nine cities which share common characteristics with York, but which have updated transport plans already in place. These cities are Bath, Cambridge, Chester, Norwich, and Oxford in the UK, and Delft, Dijon, Freiburg, and Ghent.

2.3.22 The report suggests that the city council's strategy should be *'Improving and promoting active travel, both on foot and by cycle'.* The report lays out the ambition that over the next fifteen years, more communities within York should adopt the concept of 20-minute neighbourhoods and that the road network will reflect the Council's hierarchy of users. This includes aspirations for further traffic restraint in the city centre, segregated cycle routes along radial routes, more 20mph zones, and safe road crossings.

**Walking and Cycling Strategies for York – York Civic Trust (2021)**

2.3.23 In 2021, York Civic Trust published walking and cycling strategies which consider the role of and need for active travel in York. Through these reports the York Civic Trust aim to offer advice on the strategic approach to the provision for pedestrians and cyclists which an LCWIP may adopt.

[2] Active Lives Adult Survey November 2020-21 Report. Active England (2021)

2.3.24 The strategies do not recommend specific schemes. Instead, the strategies highlight current trends and problems regarding walking and cycling, proposing targets for active travel and outlining a range of policy measures and how they may be applied. In addition, the strategy proposes specific policy measures for different areas, for example the city centre versus villages.

2.3.25 Cycle commuting levels have declined in recent years: the Trust's public survey reported 15% of commuting trips by cycle in 2019. Several targets are proposed including 40% of all commuting trips to be made by cycle, half of all cycle trips to be by women and girls, and a 40% increase in pedestrian flows by 2037.

2.3.26 The strategies distinguish between the implications of policies for different user types and identifies barriers to overcome and ways of doing so. Finally, they discuss the implications for, and requirements of other strategy elements which can influence the rates of walking and cycling such as managing demand for car use.

**Village Design Statements (VDSs)**

2.3.27 Village Design Statements provide residents with the opportunity to voice their opinions regarding planning and development. VDSs encourage communities to use their knowledge and understanding of their local area to highlight what resident's value in their villages and surrounding areas.

2.3.28 The overall aim for VDSs is for them to be approved by local planning authorities so that they can be used as planning guidance and therefore be considered in decision-making on planning applications. Several villages within York have produced VDSs which have already been adopted.

2.3.29 As one example, a VDS for Strensall with Towthorpe was produced in 2015. This VDS highlighted the value to residents of 'access for walking to the River Foss and to the wider countryside'. In addition, the VDS identified that *'both Strensall with Towthorpe Parish Council and Villagers have requested a safe cycle route into York over the years to allow them to access work, schools, shops and leisure facilities by bicycle'.* Regarding what residents would like to see in their local area, the VDS highlighted a desire for safe cycling provision within the village and from the village to the A1237, specifically the development of cycle paths and a safe cycle route to Monks Cross and Clifton Moor.

## 2.4 Travel Plans

2.4.1 Travel plans from several employers in the city were reviewed to ascertain current levels of active travel, any published targets and key aspirations including infrastructure. Those organisations responding to requests included City of York Council, the University of York and York Hospital Trust.

**Travel Plan – City of York Council (2013)**

2.4.2 This Travel Plan was developed to act as an overarching Travel Plan to encompass all Council employees and sets out the ways in which CYC will seek to maximise the opportunities for travel by sustainable modes by employees, through the provision of appropriate infrastructure and accompanying 'soft' measures to West Offices and Hazel Court.

2.4.3 The 2011 travel behaviour questionnaire results indicated that 17% of staff cycled to work and 14% walked to their respective main work location. This equates to 31% using active travel, a relatively high proportion. The highest levels of cycling are seen at Hazel Court and The Guildhall experiences the highest levels of walking to work as it is located within the pedestrianised zone and has more limited car parking provision.

2.4.4 Just 26% of staff described the quality and availability of cycle routes on their journey as 'good'. Five-year modal split targets were 23% and 15% for cycling and walking respectively. The plan details an extensive toolkit of measures designed to be implemented to achieve such active travel targets, including promoting pool bikes and extending the cycle loan scheme alongside improvements to site facilities.

**Trust Travel Plan - York Teaching Hospital NHS Foundation Trust (2019)**

2.4.5 This plan seeks to support the NHS sustainable development strategy and the trusts commitment to sustainability by reducing negative impacts on the environment, (emissions and air pollution), and maximising health benefits, (health promotion, illness prevention and social value). It seeks to increase the percentage of staff reporting they travel to work by cycling or walking by at least 1% per annum (starting in 2019) from the 25.7% reported in the 2016 survey i.e., achieving 26.7% in 2019 survey and 29.7% by the 2022 travel survey. According to the survey 25.7% (263) of staff travel to work by walking or cycling (approx. 12.5% in each category).

2.4.6 There are proposals to re-establish the Bicycle User Group made up of employees and with senior management input and identify staff that live within a three-mile radius of their main place of work and actively "market" the health benefits of walking and cycling to work to them (linking to postcode mapping facility).

**Travel plan 2022-2025 – University of York (2022)**

2.4.7 This document sets out the University's approach to travel planning for the period 2022 to 2025. Cycling modal split has decreased from 14.2% in 2012/13 to 10.2% in 2021/22. Pedestrian share of the split has increased from 39% to 47.6% in the same timeframe. This may be in part as a result of an increase in on-campus accommodation being provided.

2.4.8 A key objective is to facilitate travel by active modes through provision of appropriate infrastructure on campus, and work with the City Council to improve local routes.

# 3. BASELINE CONDITIONS

3.1.1 Understanding how people currently travel within York, and their potential to switch to active travel is an important aspect of the LCWIP. The chapter summarises publicly available information on existing travel patterns within York.

## 3.2 General

3.2.1 The City of York is an urban unitary authority located in North Yorkshire, in the North of England. The city has an area of 272 km$^2$.The latest census results in 2021 indicated that the population size of York had increased by 2.4% since 2011 to 202,800[3]. The population is projected to further increase to 212,400 by 2025 and 214,800 by 2030[4]. In addition to the general population, York attracts around 8 million visits per year[5].

3.2.2 Regarding topography, York lies within an area of flat land which is bordered by the Pennines, the North York Moors, and the Yorkshire Wolds. The city of York was built at the confluence of the River Ouse and its tributary, the River Foss. The interaction of these two rivers as well as several other factors makes the city and its surrounding areas particularly vulnerable to flooding, but which has led to protection of green corridors into the city centre.

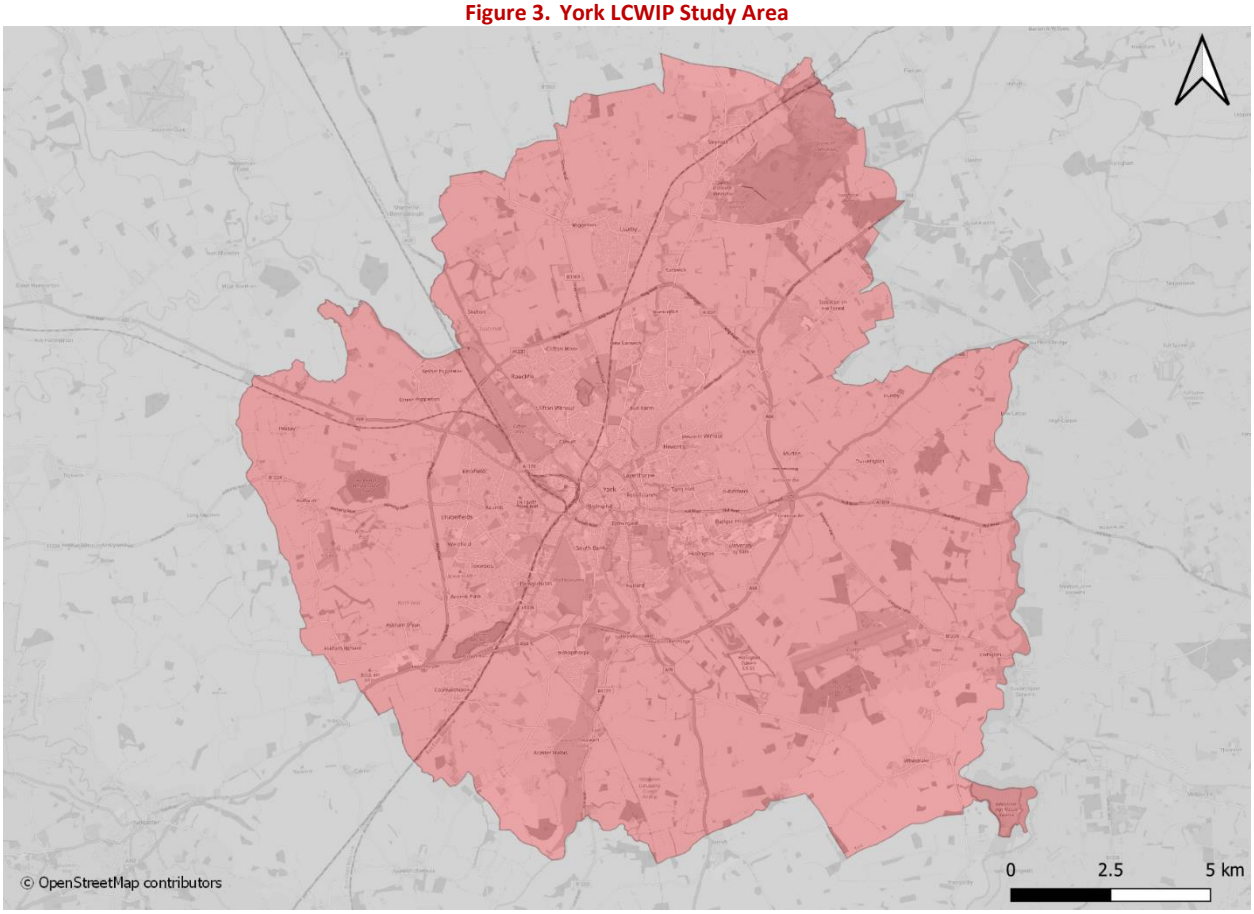
3.2.3 York is ranked 267th out of 317 local authorities in England in the overall Index of Multiple Deprivation (IMD) 2019, where 1 is the most deprived (rank of average score). York is the least deprived upper tier local authority out of 15 in the Yorkshire and Humber region based on 2019 average IMD score. IMD scores are comprise of a number of domains, the domain on which York ranks the best is Crime (6th least deprived UTLA in England) and the domain on which York ranks the worst is Living Environment (58th least deprived UTLA)[6].

3.2.4 York is served by a number of A-roads, connecting the city with the motorway network, Manchester, Leeds, and Hull. Public transport within the city is mostly bus-based with six park and ride sites helping to ease congestion within the city centre. York also continues to be a major railway centre.

3.2.5 The study area includes the area within the administrative boundary shown in Figure 3.

[3] Census 2021: How the Population Changed in York, ONS
[4] ONS, 2018
[5] Make It York, 2022
[6] City of York Council, 2019

Figure 3. York LCWIP Study Area




## 3.3 Public Transport

3.3.1 York is served by a rail station on the East Coast Mainline and at Poppleton on the York to Scarborough line. A new rail station is proposed at Haxby on the York to Scarborough line and is subject to a successful funding bid.

3.3.2 York has an extensive bus network which includes six Park and Ride sites, intra urban and rural bus routes and long-distance services to surrounding towns and cities. Bus coverage across rural York is not consistent or evenly spread, and services to some of the surrounding authority areas such as Harrogate are relatively infrequent. In 2021 York was successful in its bid for £17.4m to deliver its Bus Service Improvement Plan (BSIP).

3.3.3 The Bus Service Improvement Plan aims to integrate better with active travel modes and presents opportunities to develop active travel infrastructure alongside new bus priority measures.

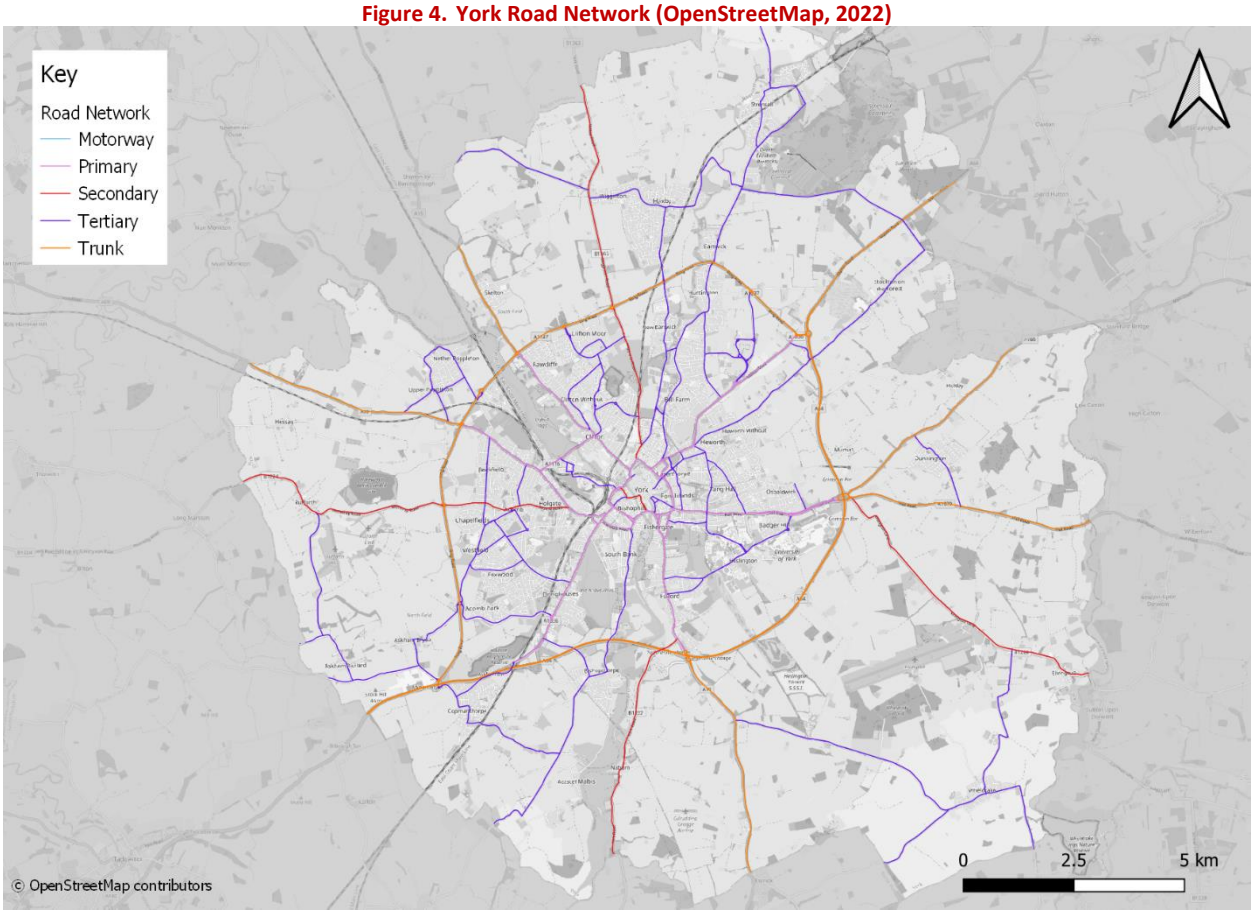
## 3.4 Road Network

3.4.1 York has a historic city centre and extensive pedestrianised traffic free area. A number of radial routes extend beyond the city's outer ring road, which is formed in part by the only section of Strategic Road Network in the study area, the A64 between the A1M and Scarborough. The inner ring road which in most parts runs parallel to the City Walls acts as a barrier to many cycling and walking trips.

3.4.2 The vast majority of the city's roads are single carriageway (30mph), the exceptions being part of Hull Road to the East. There are plans to dual the section of northern ring road (A1237) between the A19 and Monks Cross/Hopgrove (A64) in the next few years.

3.4.3 Low speed areas are conducive to active travel. There are several 20mph zones across the city, some in residential areas and some outside schools. Some pf these are enforced by traffic calming measures whilst others are signs only. There is a Low Traffic Neighbourhood in the Groves area near the city hospital. Modal filters have been introduced in many streets to discourage rat-running and to improve road safety and environmental conditions.

**Figure 4. York Road Network (OpenStreetMap, 2022)**



## 3.5 Traffic Congestion

3.5.1 Traffic congestion is common on much of the York road network during the AM and PM peaks, particularly along radial routes, sections of the inner and outer ring road, and near the Hull Road/A64 junction (See Figure 5 & Figure 6). Traffic congestion is a mixed blessing for pedestrians and cyclists: it encourages alternative journeys to car travel but can also deter active travel by blocking cycle lanes and road crossings, and creating pollution.

**Figure 5. Traffic Conditions and Congestion Weekday AM (Google Maps, 2023)**

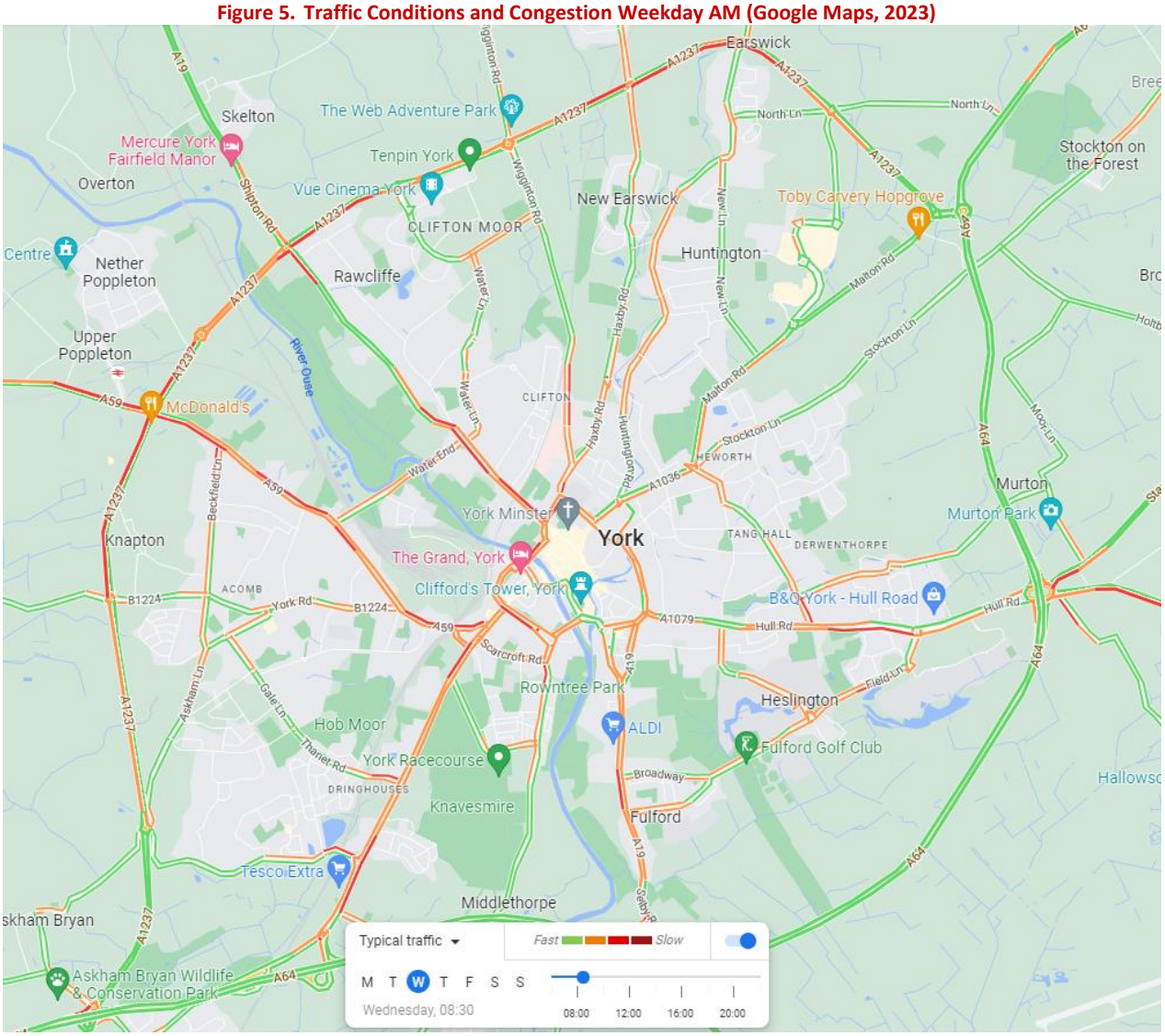
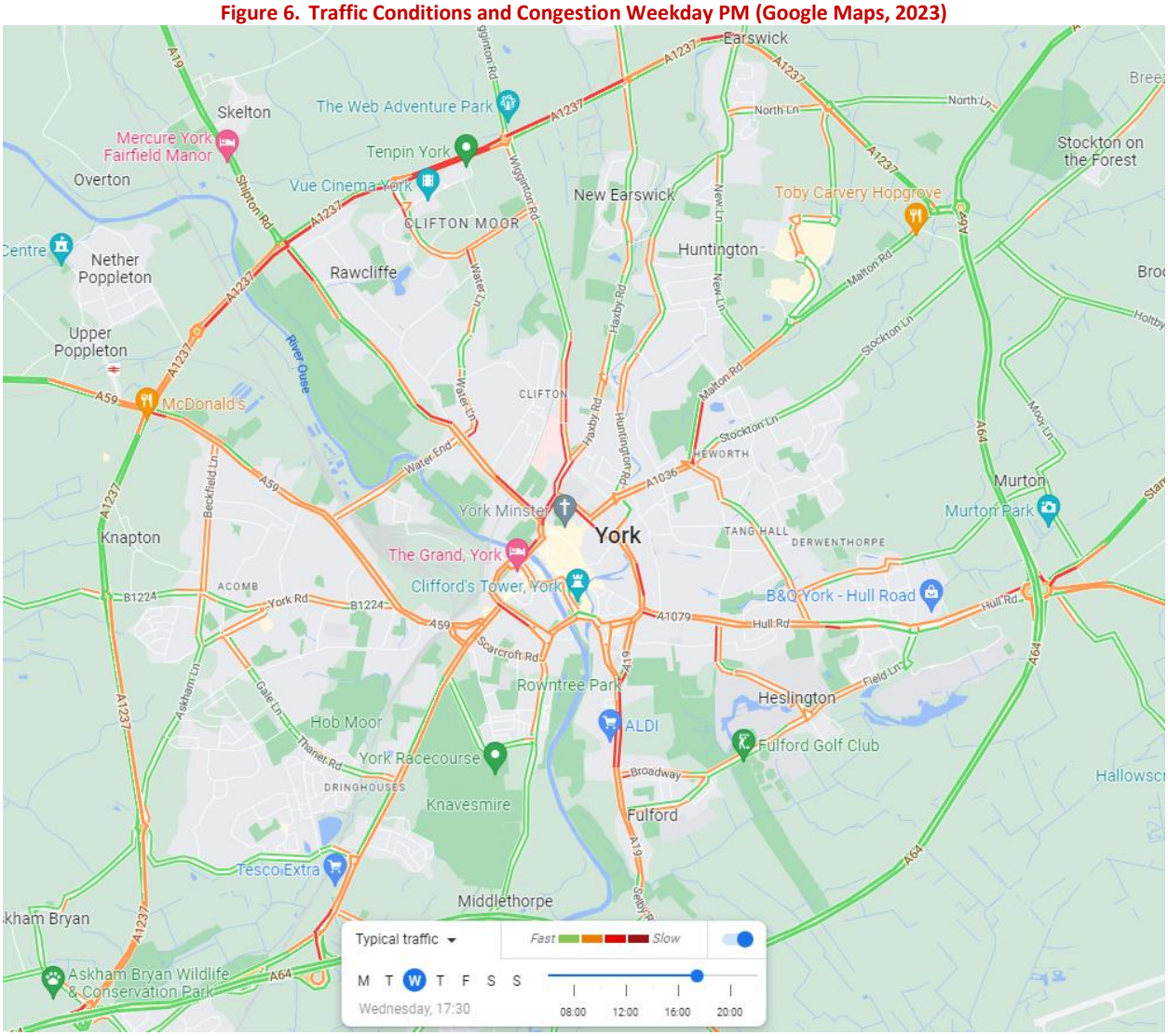


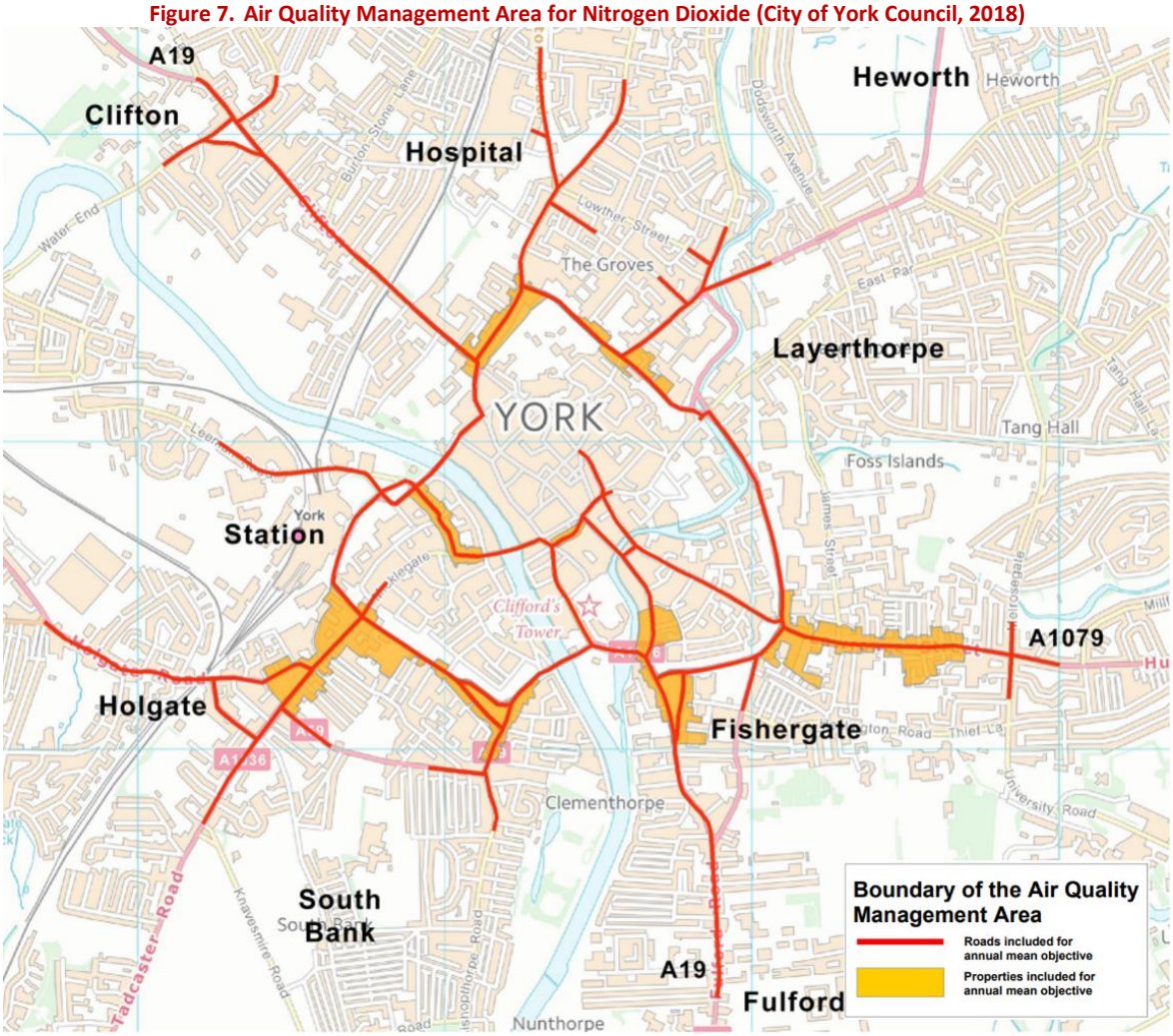
Figure 6. Traffic Conditions and Congestion Weekday PM (Google Maps, 2023)




## 3.6 Air Quality

3.6.1 There is an Air Quality Management Area in the city centre in which a voluntary Clean Air Zone operates. This has helped encourage a fleet of electric buses, modifications to tour buses operating in the city, and proposals for zero emission last mile delivery services, including cargo bikes. Air quality along routes highlighted in Figure 7 is monitored and several of these routes exceed statutory clean air standards.

Figure 7. Air Quality Management Area for Nitrogen Dioxide (City of York Council, 2018)




## 3.7 Deprivation

3.7.1 In the overall index of multiple deprivation York is ranked 267th out of the 317 local authorities in England, where 1 is the most deprived (rank of average score). On this basis York can be described as an affluent city overall, although there are pockets with high deprivation levels.

3.7.2 The following maps illustrate the local economic situation in comparison with the national picture. Indices of deprivation can be utilised to draw attention to inequality across the Borough and nationally.

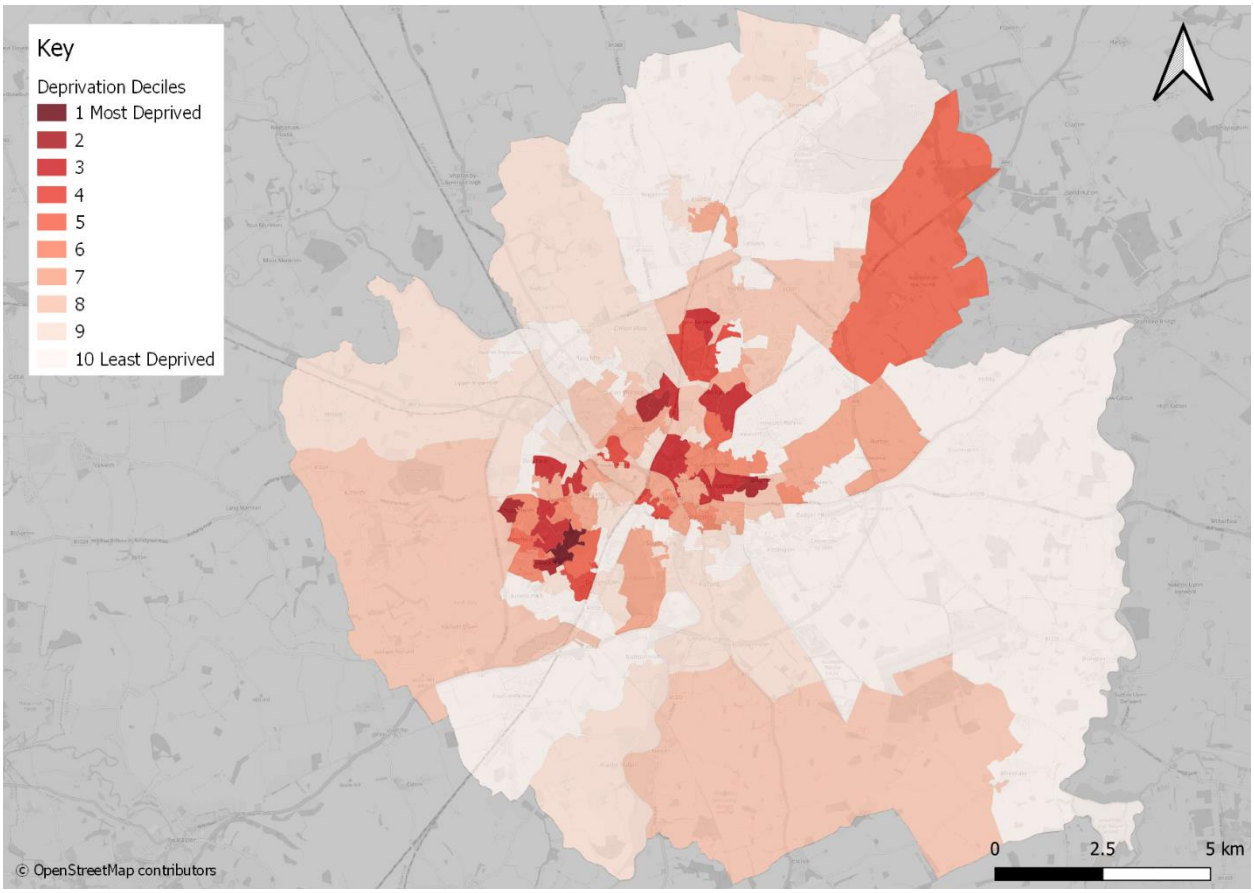
3.7.3 The indices of deprivation measures that are utilised in England for small lower super output areas (LSOAs) are based upon the below domains of deprivation:

- Income Deprivation (22.5%);
- Employment Deprivation (22.5%);
- Education, Skills, and Training Deprivation (13.5%);
- Health Deprivation and Disability (13.5%);
- Crime (9.3%);
- Barriers to Housing and Services (9.3%); and
- Living Environment Deprivation (9.3%).

3.7.4 In order to understand how the overall index of multiple deprivation (IMD) is calculated the appropriate weights for the domains is also given above.

3.7.5 The below sections have used IMD data from 2019 and the 32,844 LSOAs have been ranked against each other in order to classify them into deciles of high and low deprivation.

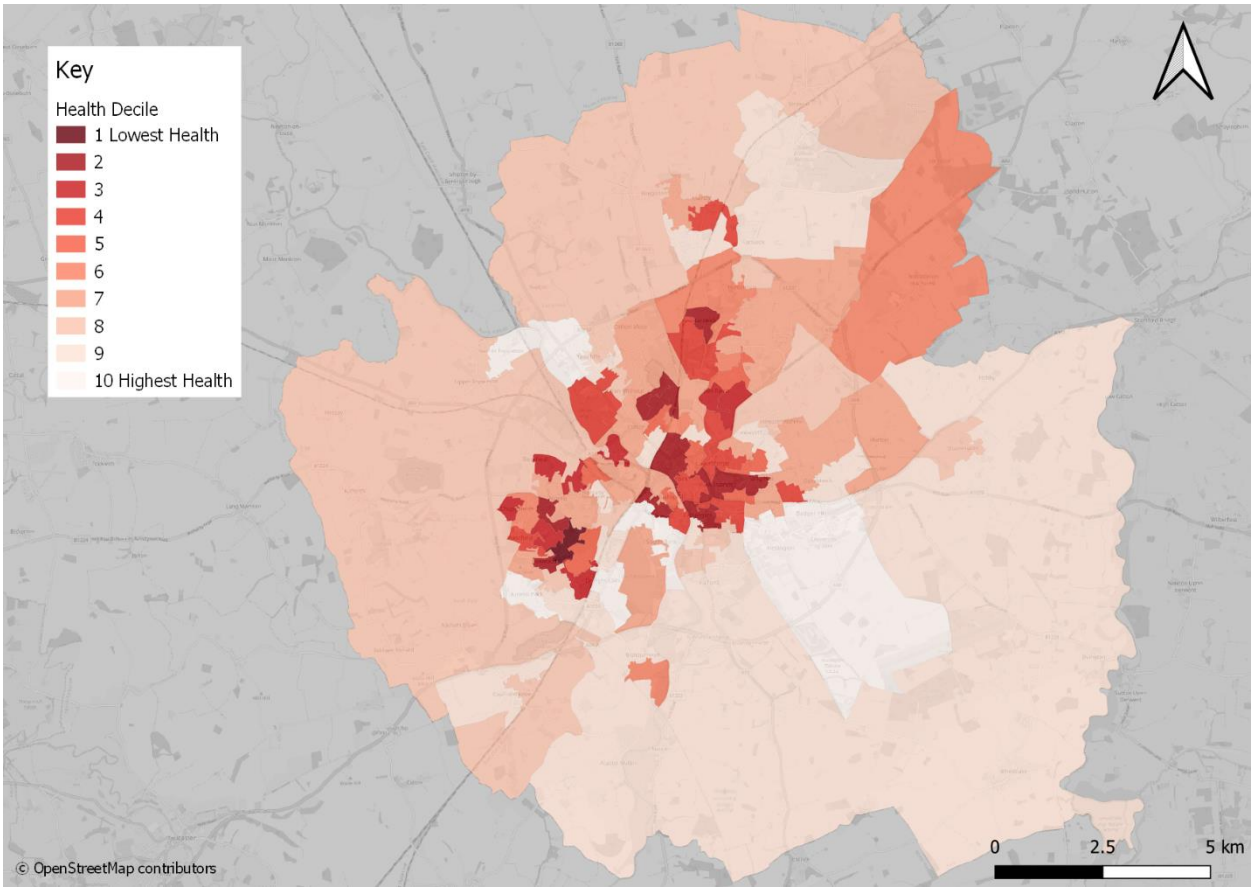
**Figure 8. Indices of Deprivation by Decile (ONS, 2019)**




3.7.6 One neighbourhood across the City of York is among the 10% of the most deprived in England according to this data. There is a strong correlation between the areas of high overall

deprivation and the health deprived areas. There are low levels of overall deprivation and few health deprived LSOAs to the East of the City. The highest indices of deprivation and health deprived areas are located in Clifton, around Foss Islands and Westfield.

**Figure 9. Indices of Health by Decile (ONS, 2019)**




3.7.7 Despite the overall picture categorising York as affluent, the two maps above demonstrate that there are still several areas of deprivation. It is critical that such pockets of deprivation are linked with strong connections to the active travel and public transport network to improve accessibility to education and employment.

## 3.8 Car Ownership

3.8.1 Car ownership rates are higher in rural areas and in the city suburbs where journeys are longer, where households are generally more affluent, and where parking may be easier (See Figure 10). There are some inner-city areas where car ownership rates are low through choice, because of cost, or because of limited car parking space.

3.8.2 It is worth noting in Figure 11 that all areas of the city have areas where some households do not have access to a car, including rural wards where there may be little or no public transport provision.

**Figure 10. Percentage of Households that own at Least One Car by LSOA in York (Census, 2011)**

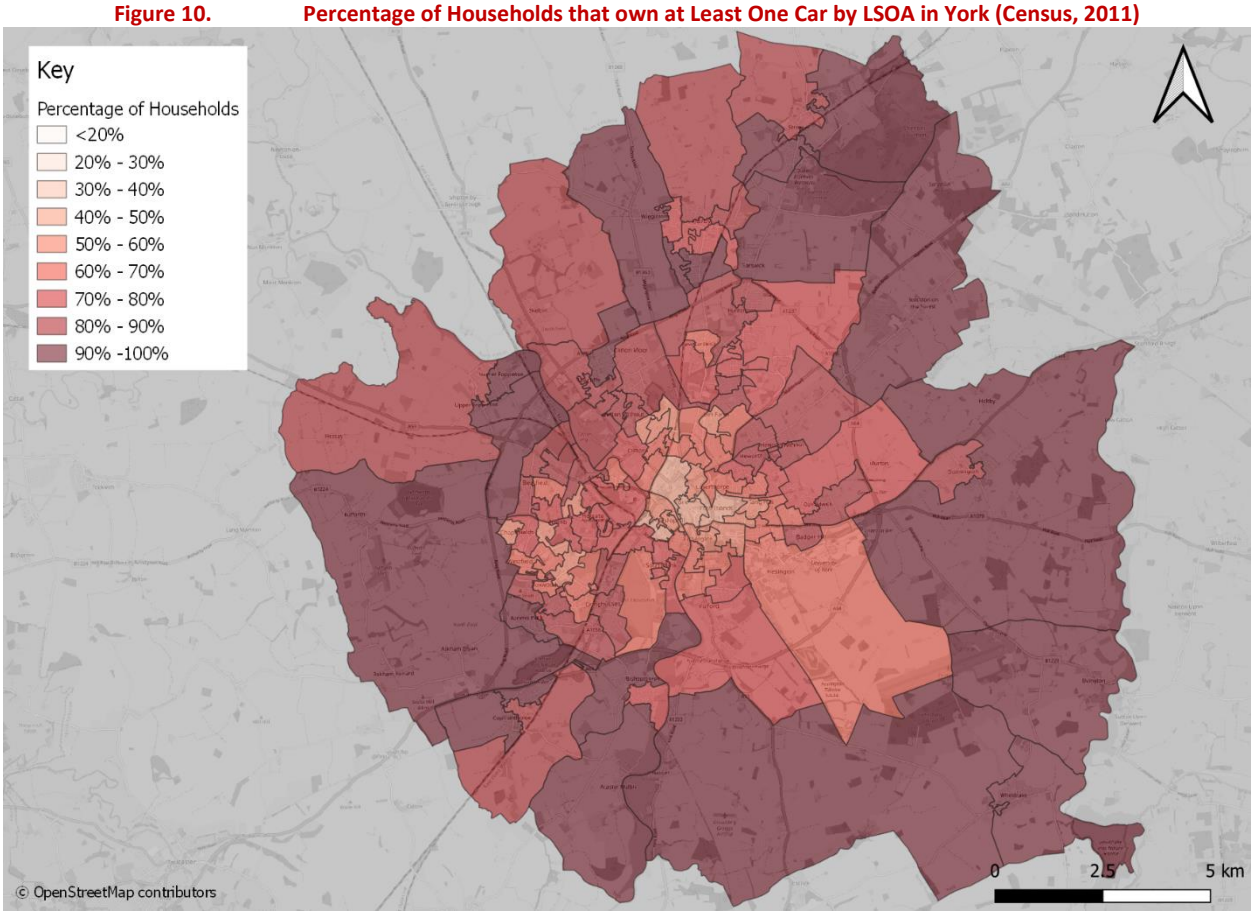
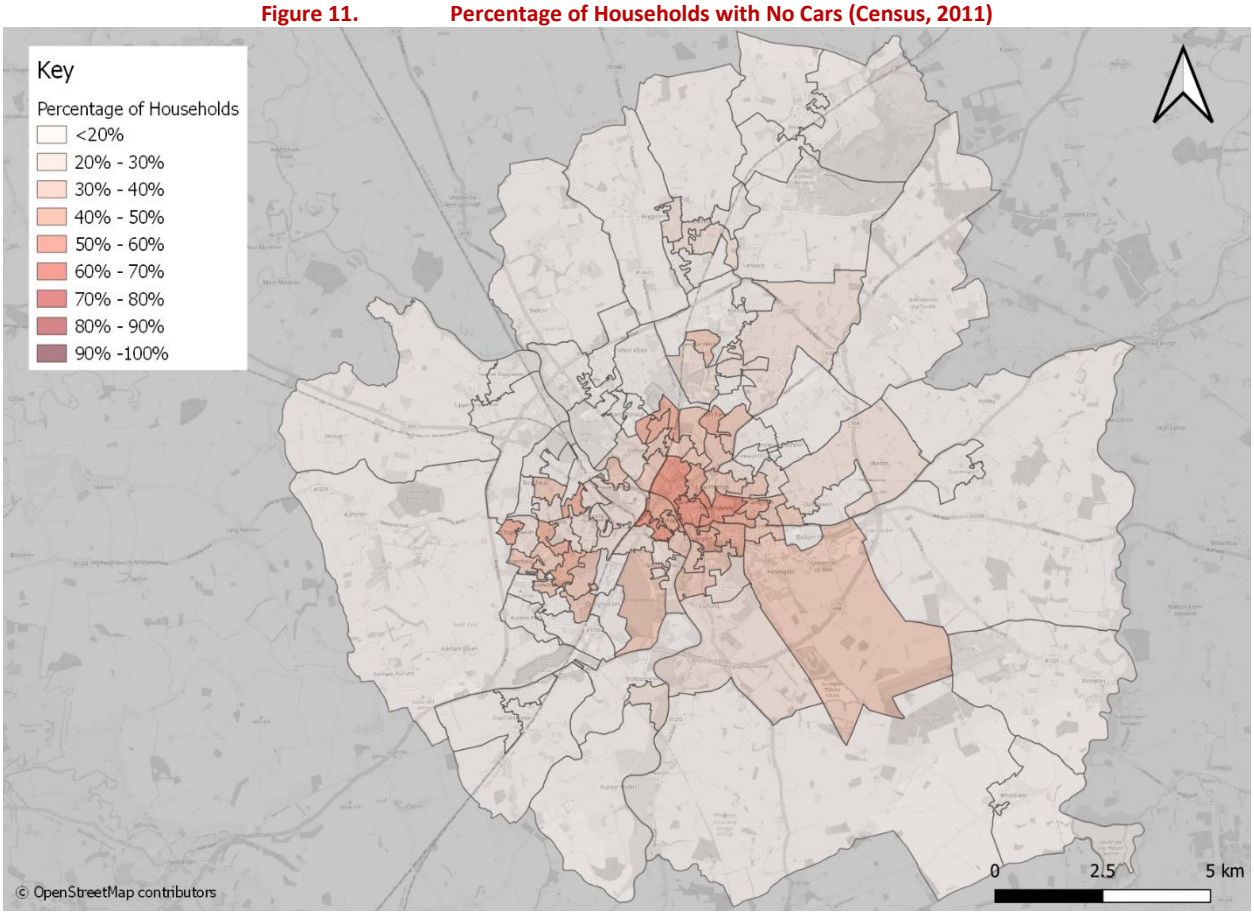


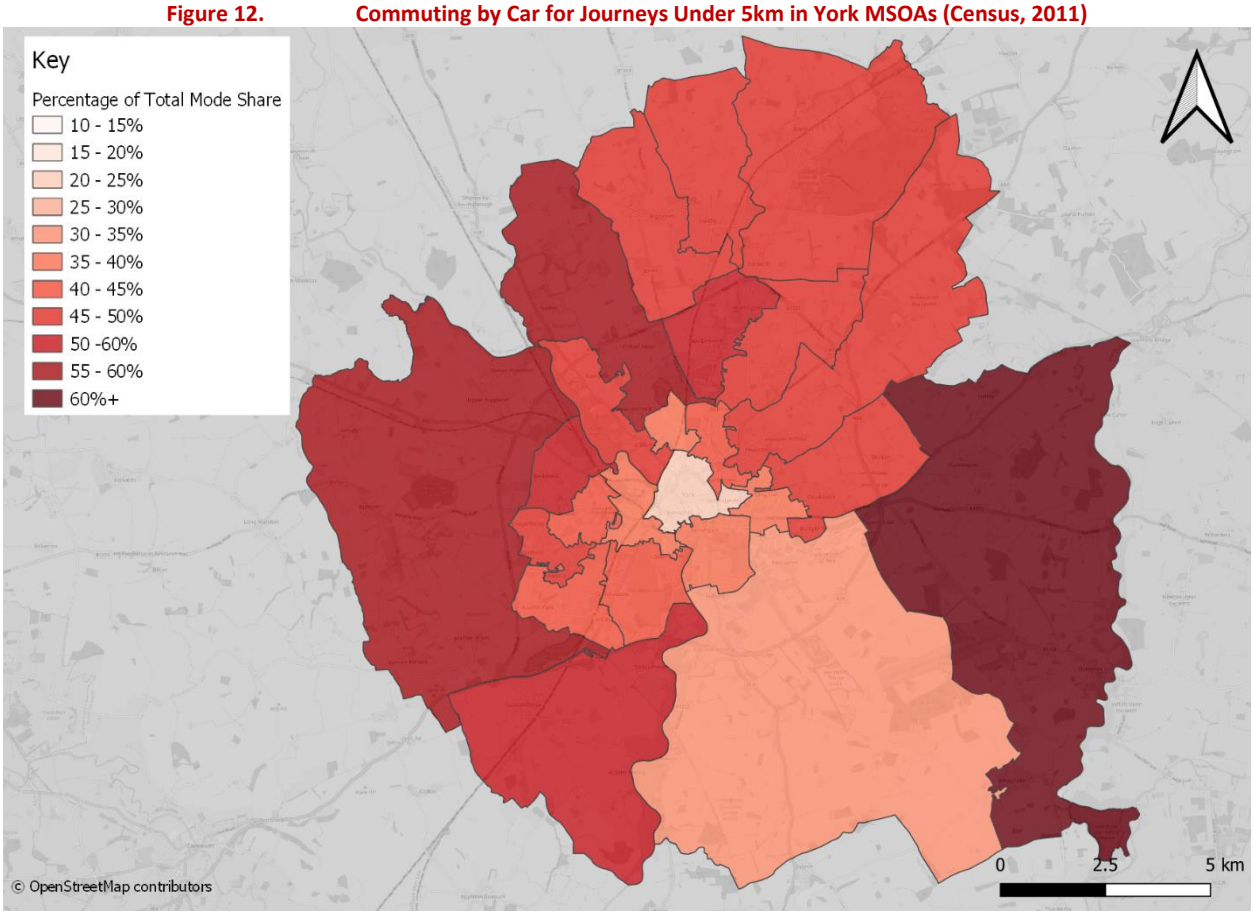
Figure 11. Percentage of Households with No Cars (Census, 2011)




## 3.9 Commuting

3.9.1 Incidence of commuting by car for journeys under 5km is much lower in the city centre and to the South which includes the University of York. It is highest to the East of the city where bus services are less frequent and there is local employment in Elvington and Stamford Bridge. See Figure 12.

Figure 12. Commuting by Car for Journeys Under 5km in York MSOAs (Census, 2011)




## 3.10 Collision and Safety Data

3.10.1 Collision Data is summarised for cyclists in Figure 13 and for pedestrians in Figure 15. This data is taken from the Crashmap database for the 5-year period 2017-21. Data screening has been limited to fatal and serious injuries only, to assist in identifying local cluster patterns. Slight accidents are nonetheless an important indication of dangers which put people off walking and cycling.

3.10.2 There was a total of 70 reported cycle casualties and 48 pedestrian casualties in the period. Both Figures illustrate clusters of collisions involving cyclists and pedestrians respectively. Around 10% of all cycling casualties are on the Acomb Road corridor and approximately 25% of all pedestrian casualties are on or within the inner ring road and these are illustrated in Figures 14 and 16.

3.10.3 It is worth noting that many minor collisions and near misses often go unreported. Crashmap does not take account of these, but it is worth considering that they do play a significant role in deterring people from active travel.

3.10.4 Other sources of safety related data have been examined as part of the scoring process to identify the priority cycling and walking routes.

3.10.5 The Commonplace *Safe Streets York* survey of local road safety issues, led by York Cycle Campaign, was held during the Covid Pandemic (May to September 2020) to help identify possible Emergency Active Travel Zones (Figure 17). The survey attracted 764 comments widely distributed around the city. Of the respondents, 65% felt safer as cyclists, and 40% felt safer as pedestrians, in the lower levels of traffic experienced during the pandemic.

3.10.6 The detailed responses demonstrated the need for a comprehensive cycle route network. Six of the top seven concerns related to the cycle network and accounted for 74% of all responses. These included incomplete routes (20%), unsafe junctions and crossings (19%), inadequate infrastructure (14%), narrow paths, barriers and poor maintenance (7% each).

3.10.7 A separate *Rate our Routes* online survey is coordinated by York Cycle Campaign which scores users' perceptions of safety and other aspects of route quality across the city (Figure 18).The most notable route that are consistently scoring poorly and exemplified in red are along Huntingdon Road, Tadcaster Road, Water End and on routes closer to the City Centre.

**Figure 13. Collisions Involving Cycles in York (Crashmap, 2023)**

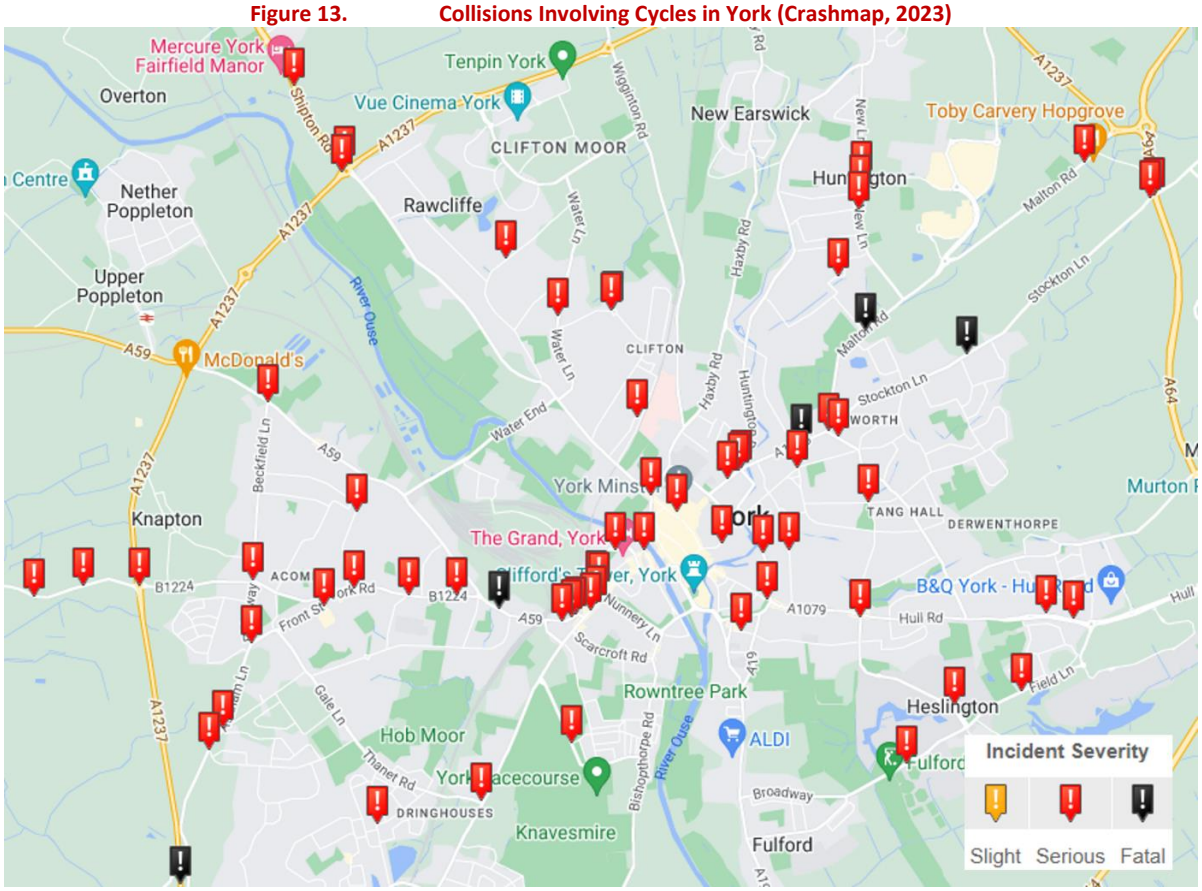


Figure 14. Cluster of Collisions Involving Cycles along Acomb Road/Holgate Road (Crashmap, 2023)

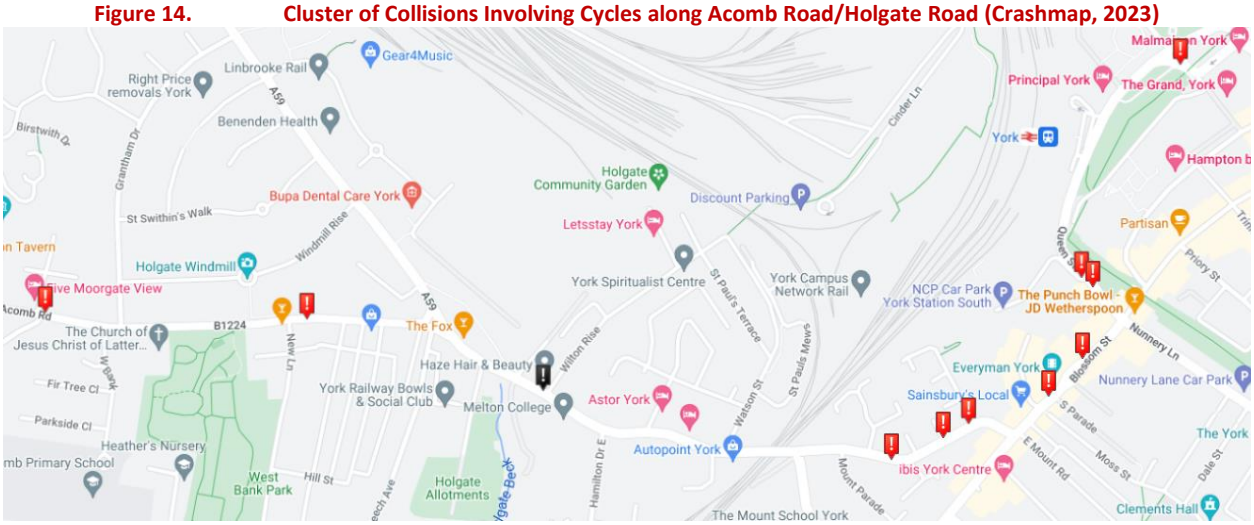



Figure 15. Collisions Involving Pedestrians in York (Crashmap, 2023)

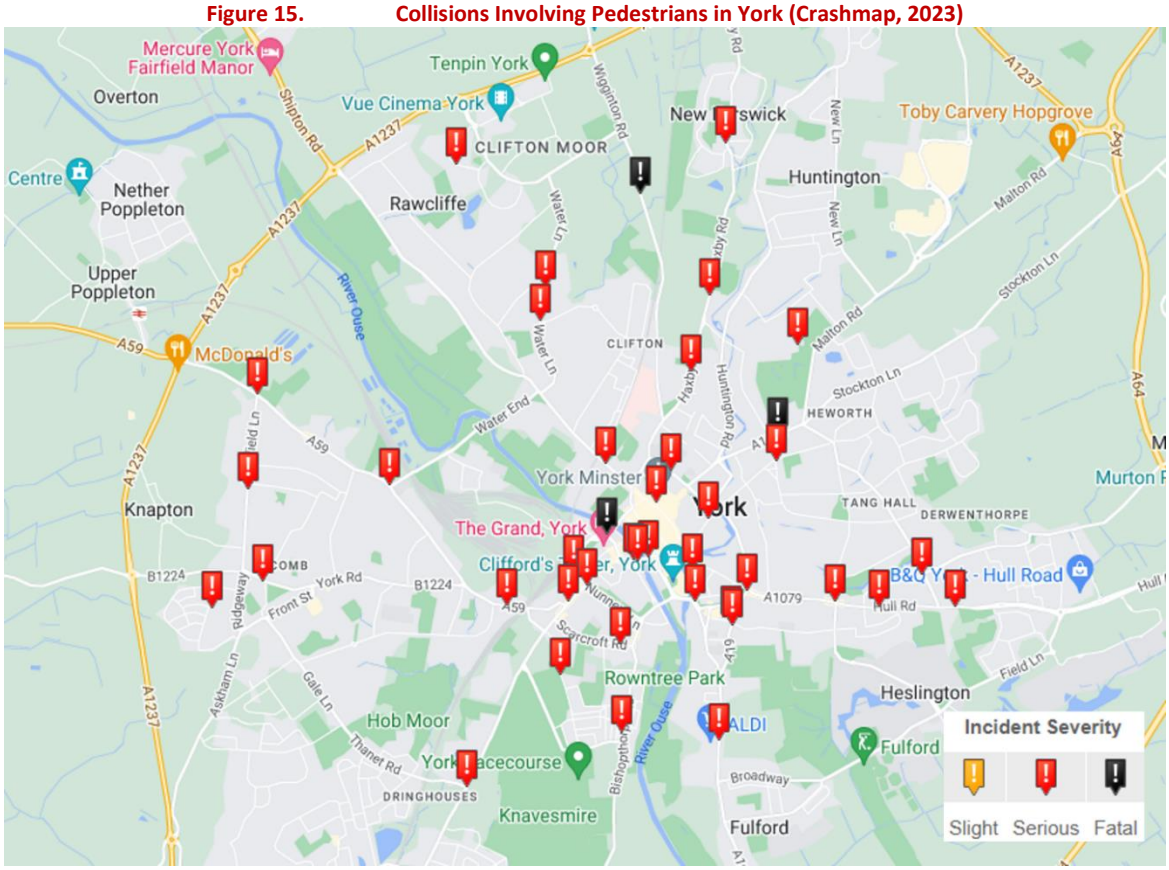


Figure 16. Cluster of Collisions Involving Pedestrians along the Inner Ring Road (Crashmap, 2023)

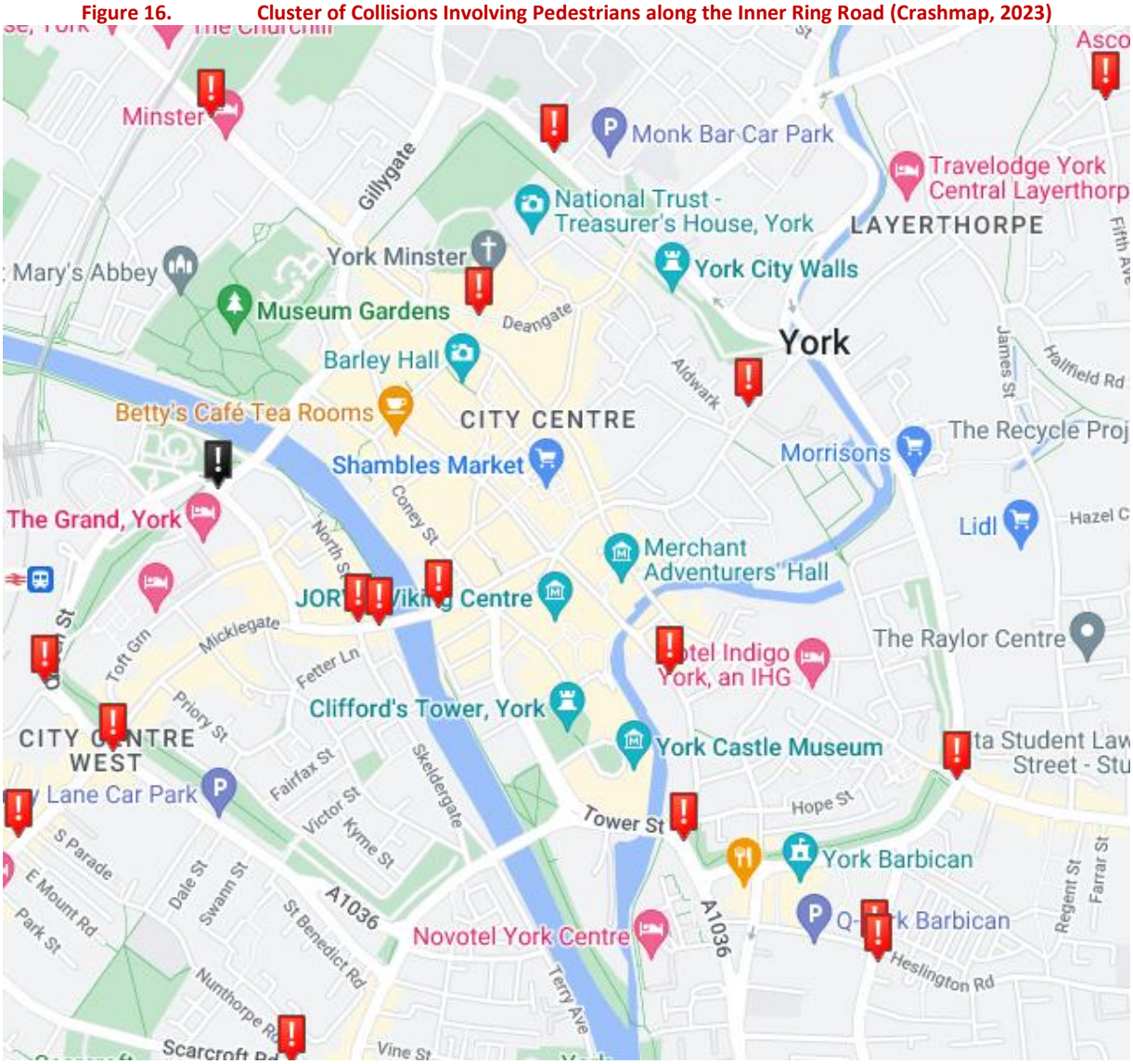


**Figure 17. Commonplace Safety Survey (York Cycle Campaign, 2020)**

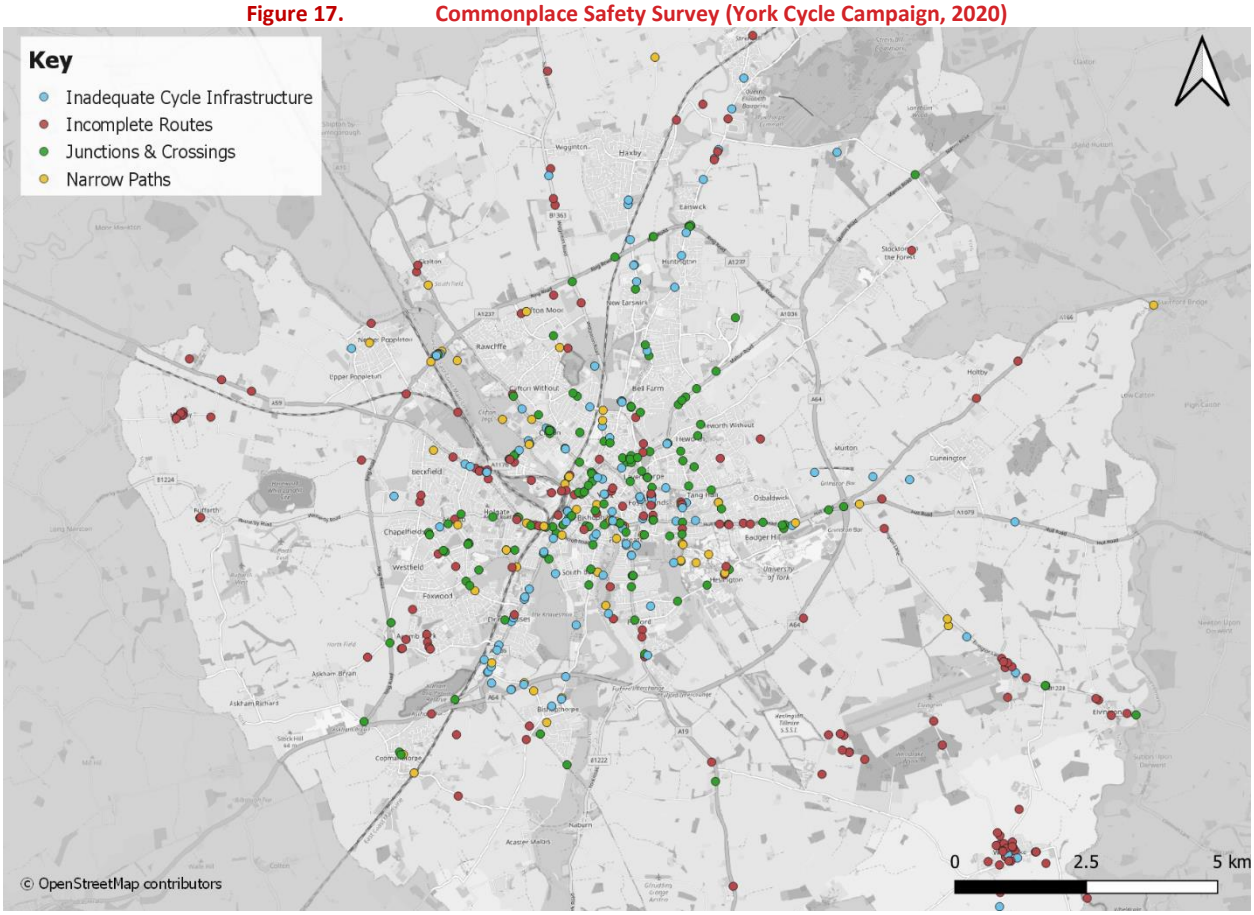
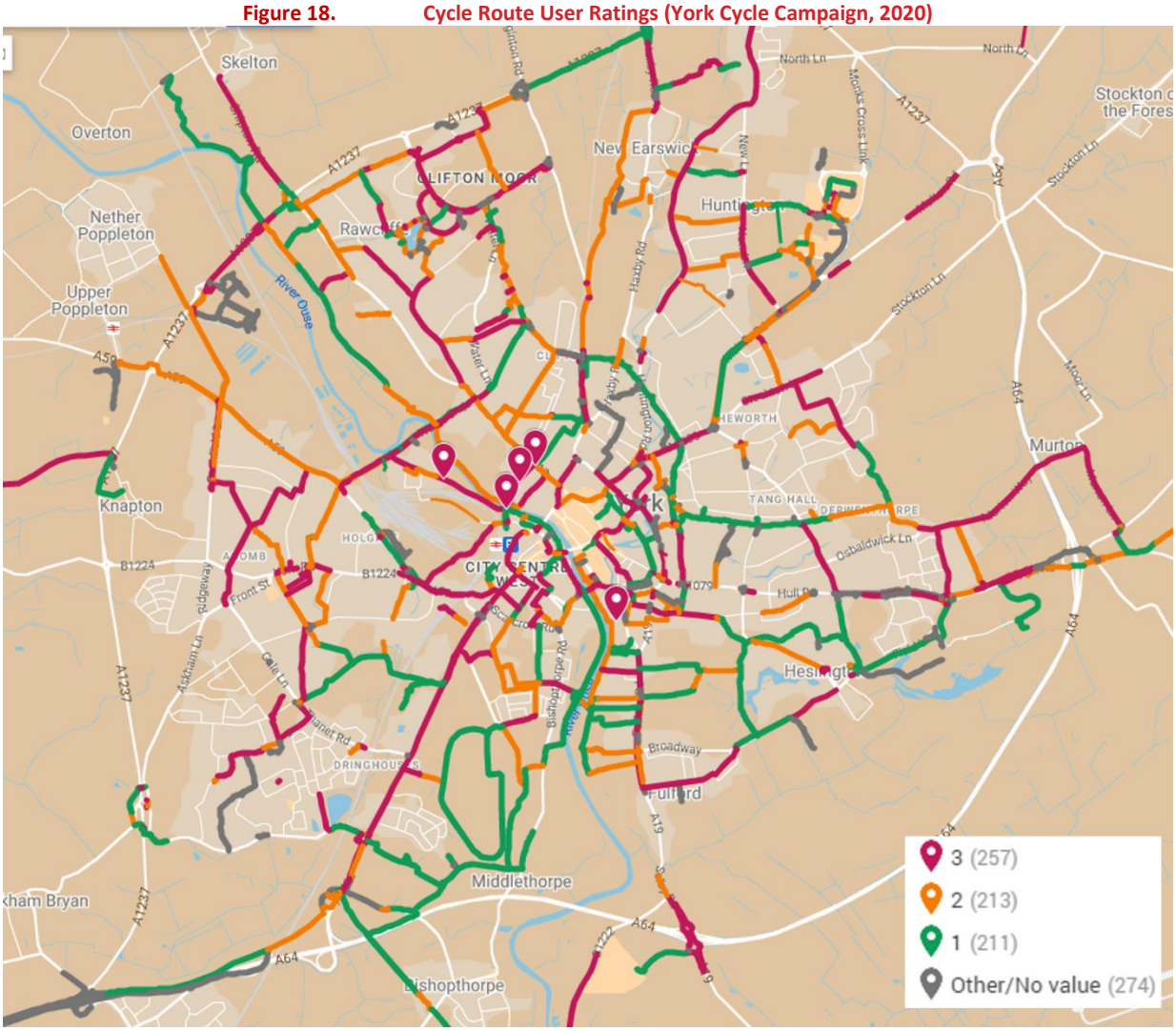


Figure 18. Cycle Route User Ratings (York Cycle Campaign, 2020)




## 3.11 Cycle Network

3.11.1 York has an extensive network of cycle routes shown in Figure 19. The network includes cycle routes forming part of the National Cycle Network, including NCN 65 Beningbrough – York – Naburn and NCN 66 Tadcaster – York – Stamford Bridge. The complete cycle network is formed by a combination of traffic free greenways, segregated and shared use routes separate from the carriageway, painted cycle lanes and routes following quiet traffic calmed streets and rural country lanes.

3.11.2 The network is constantly expanding as new routes are added. The following links are proposed for addition or improvement in the coming years:

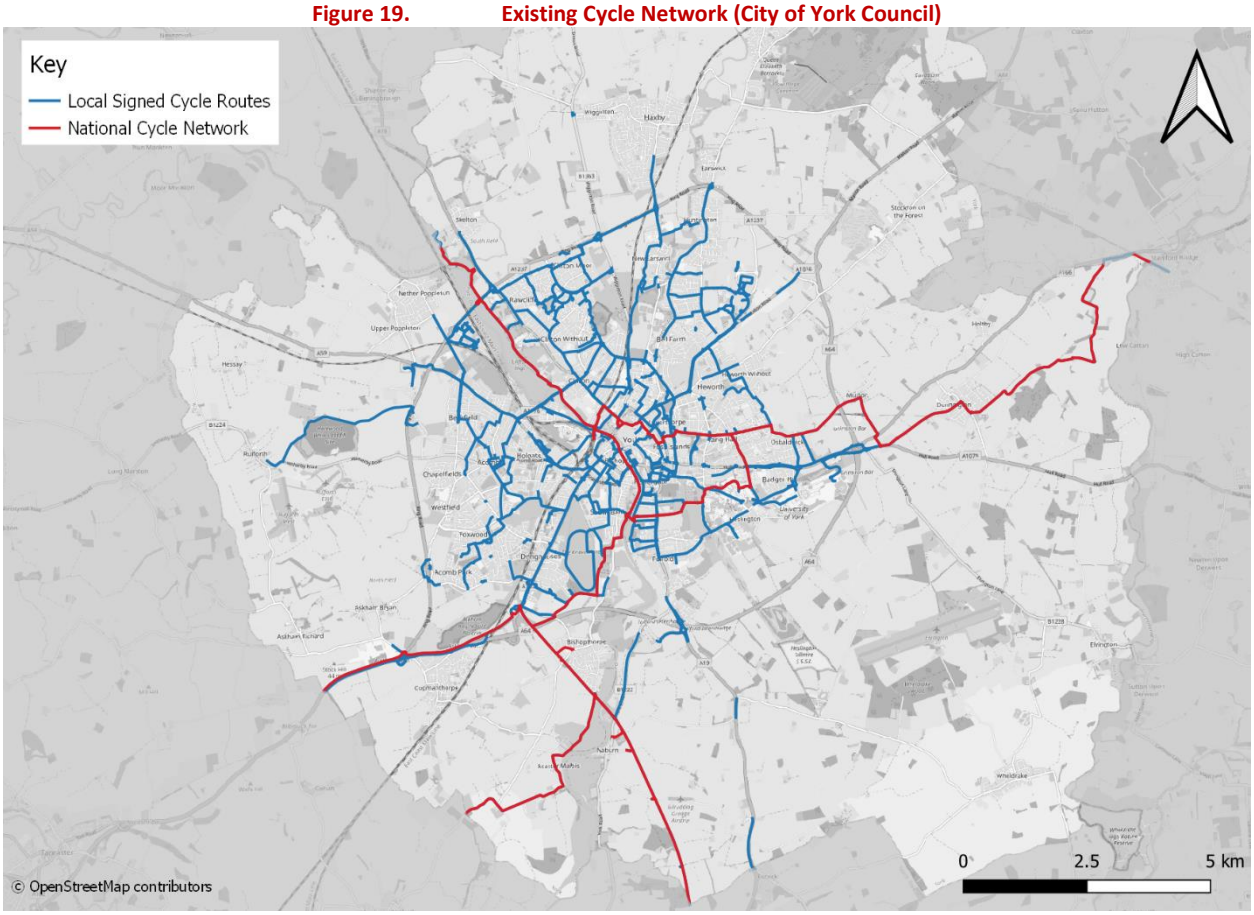
- York Station Frontage;

- York Central Spine Route and Leeman Road rail underbridge;
- Castle Gateway project including a new crossing near Castle Mills Bridge and a pedestrian/cycle bridge to Piccadilly;
- Outer Ring Road (A19 to Monks Cross) and cycle underpasses as part of A1237 dualling scheme;
- Tadcaster Road (York College to Scarcroft Road);
- Acomb Road (Beckfield Lane to The Fox PH); and
- University of York to Elvington & Wheldrake.

3.11.3 Other links will be added as part of new developments. One example is the link across the A64 from the proposed Winthorpe development near Elvington Airfield towards the University of York.

3.11.4 Sustrans has reviewed the alignment and quality of the National Cycle Network routes across York. Several sections were scored as poor or very poor due to cyclists not being segregated from traffic and most on-road facilities being situated on roads with a speed limit in excess of 20mph. Possible changes include signing the route from Tadcaster to York via the old Roman Road and Copmanthorpe in place of the cycle track beside the A64; improving cycle access from Copmanthorpe to Bishopthorpe and utilising the old track bed near Murton to create a safer route to Dunnington.

Figure 19. Existing Cycle Network (City of York Council)




## 3.12 Walking Network

3.12.1 As with most urban areas, the dense network of footways, alleyways and service roads forms an extensive pedestrian network. In the city centre, access restrictions have created one of the largest pedestrianised areas in Europe.

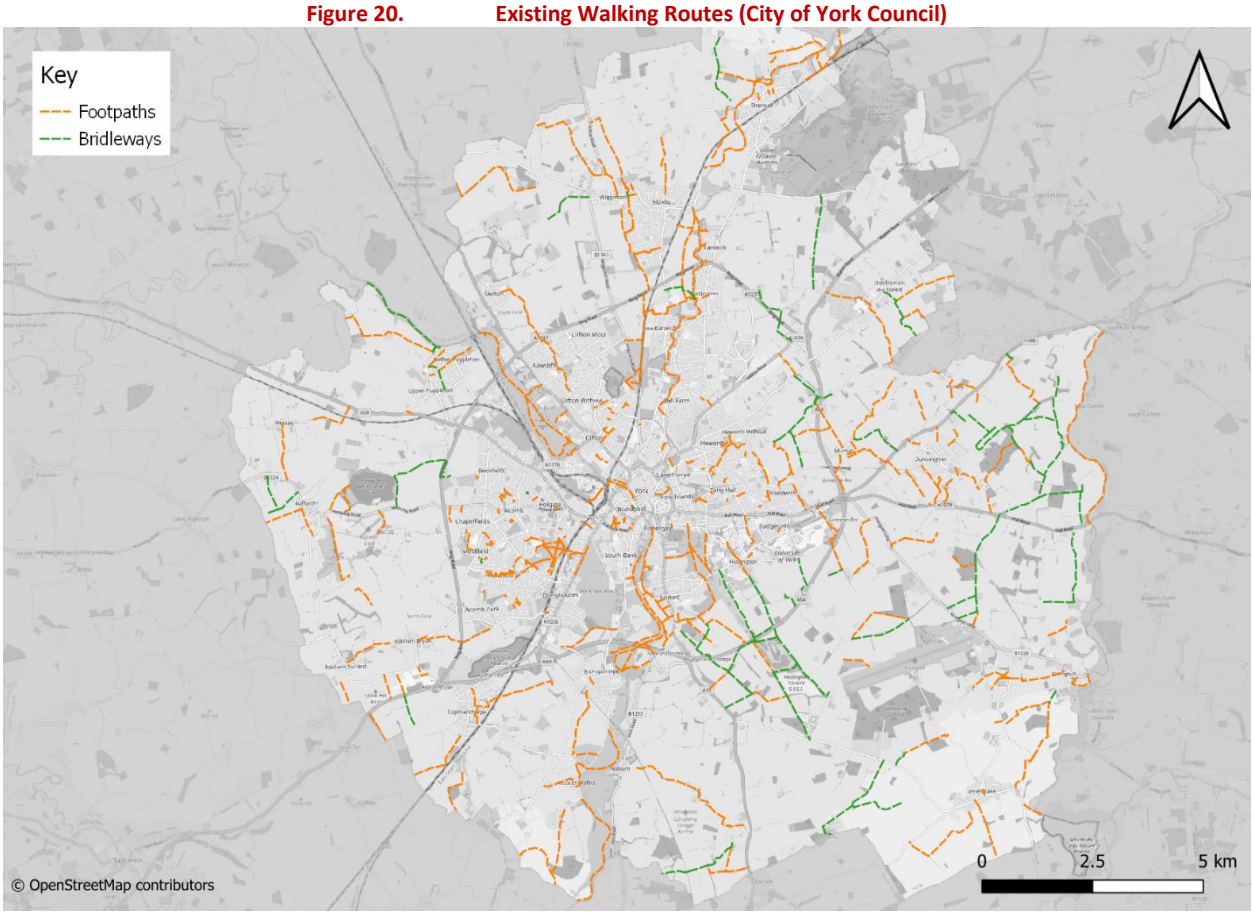
3.12.2 The plan below (Figure 20) shows the network of public footpaths and bridleways taken from the latest Public Rights of Way Improvement Plan. This extends the pedestrian network into rural areas and green spaces within the city boundary. The longer distance National Cycle Routes are not shown but several sections are designated for shared use by pedestrians, cyclists and horse riders in some places.

3.12.3 Notable opportunities to create new recreational and utility footpaths include:

- River Foss Walk from Strensall – Huntington – City Centre;
- York Riverside (City Centre);

- Castle Gateway;
- Copmanthorpe to Bishopthorpe via a new ramped bridge over the East Coast Mainline; and
- Additional links to new developments and the proposed Haxby Rail Station.

**Figure 20. Existing Walking Routes (City of York Council)**




## 3.13 Travel Habits

3.13.1 The 2011 Census collected travel to work data by mode and district. The total inflow of people coming to York for work was 25,734, while the total outflow was 21,451. Most York residents remain in York to work. The next most common place of work is Leeds which attracts 5,023 York commuters. The below table provides a breakdown.

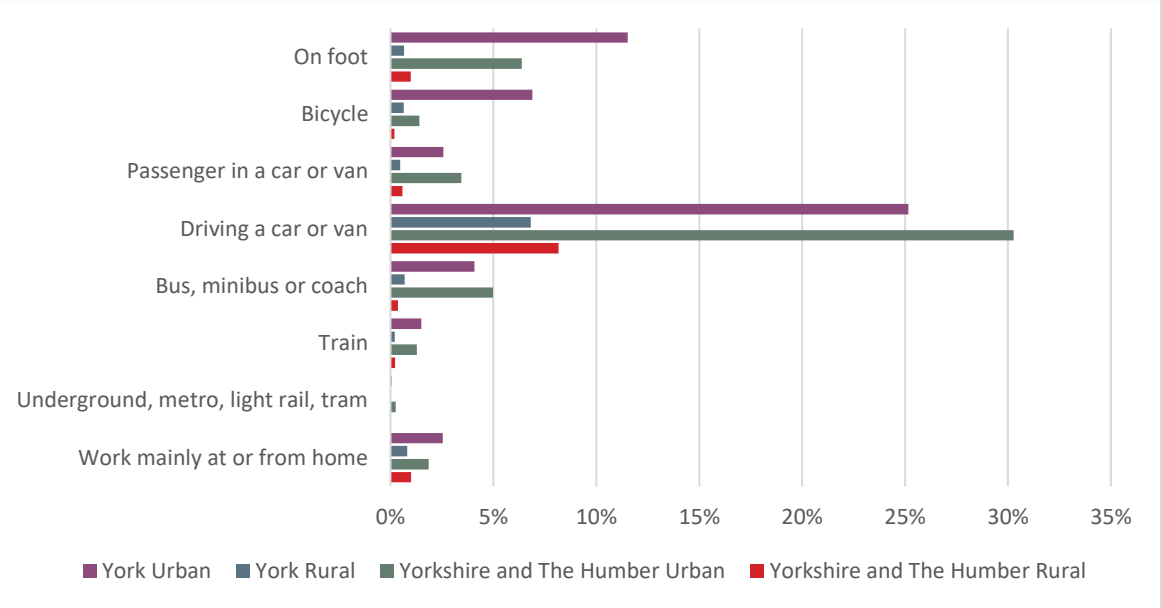
**Table 2. Location of Place of Work for York Residents (Census, 2011)**

| LOCATION | NUMBER OF COMMUTERS |
|---|---|
| York | 25,734 |

| LOCATION | NUMBER OF COMMUTERS |
|---|---|
| Leeds | 5,023 |
| Hambleton | 2,915 |
| Harrogate | 2,194 |
| East Riding of Yorkshire | 1,957 |

3.13.2 A breakdown of how people travelled to work in York compared to other regions is depicted in Figure 21 below. The data was for residents of York Urban/ Rural and the whole of Yorkshire and The Humber Urban/ Rural travelling to their place of work.

**Figure 21. Method of Travel to Work (Census, 2011)**




3.13.1 This method of travel to work data demonstrates that people in Urban York are significantly more likely to walk (11.5%) and cycle (6.9%) than the rest of Yorkshire and The Humber. Residents in Rural York are slightly less likely to commute to work by driving a car or van (7%), compared to the rest of Yorkshire and The Humber (8%).

## 3.14 Walking and Cycling Mode Share

3.14.1 The DfT has set a goal of half of journeys in cities and towns to be made by walking and cycling by 2030.

3.14.2 Subject to terrain and traffic, many of these short journeys could be completed by walking or cycling, given relatively competitive journey times. The DfT's WebTAG average cycling speed is (14kph), under this premise a 5km journey would equate to approximately a 21min cycle, and a 10km journey would be a 42min cycle.

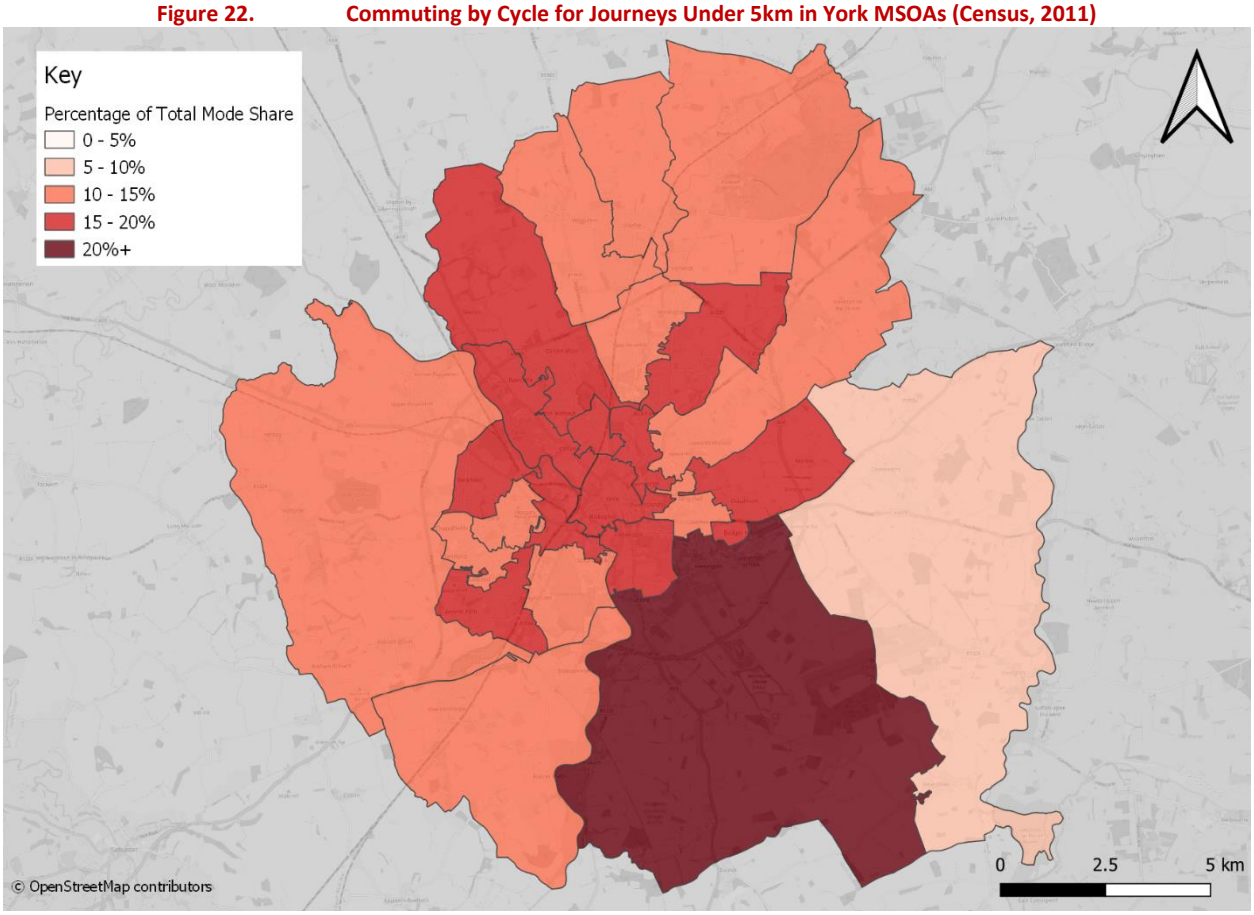
3.14.3 More recent data from the DfT shows that the proportion of adults that walk or cycle for travel at least once per month in York is 81.8%, compared to 76.3% in Yorkshire and The Humber.

**Table 3. Proportion of Adults who do any Walking or Cycling for any Purpose (DfT, 2021)**

| LOCATION | ONCE PER MONTH | ONCE PER WEEK | THREE TIMES PER WEEK | FIVE TIMES PER WEEK |
|---|---|---|---|---|
| Yorkshire and The Humber | 76.3 | 68.5 | 43.0 | 31.5 |
| North Yorkshire | 82.0 | 76.2 | 51.5 | 39.3 |
| York | 81.8 | 75.2 | 55.0 | 41.3 |
| Hambleton | 83.2 | 76.9 | 51.2 | 41.0 |
| Harrogate | 85.9 | 80.6 | 54.6 | 42.6 |
| East Riding of Yorkshire | 77.0 | 69.1 | 43.7 | 34.2 |

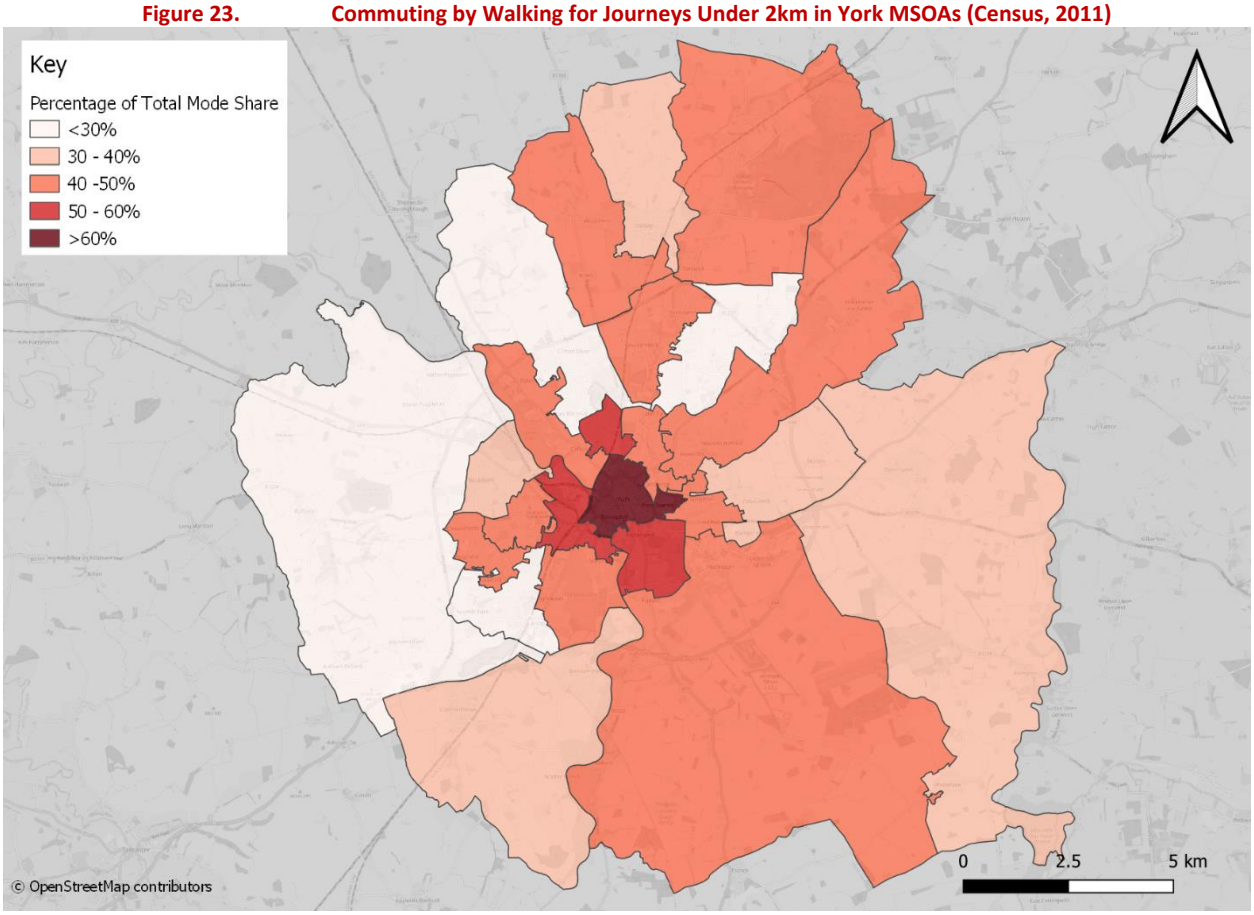
3.14.4 Of journeys made to work under 5km, Figure 22 shows the mode share of the Middle Layer Super Output Area (MSOA) in York by percent of commutes under 5km made by cycle. Figure 20 shows the mode share of the MSOAs in York by percent of commutes under 2km made by foot.

**Figure 22. Commuting by Cycle for Journeys Under 5km in York MSOAs (Census, 2011)**




3.14.5 The highest shares of cycling as a means of commuting under 5km, with a mode share of over 20% are in the South of the city in areas such as Fulford and Heslington where the University and Science Park are located. In contrast the lowest levels were to the East of the City in Derwent with a mode share below 10%.

Figure 23. Commuting by Walking for Journeys Under 2km in York MSOAs (Census, 2011)




3.14.6 There are significantly lower levels of walking as a percentage of commutes under 2km in the MSOAs to the West of the City in areas such as Skelton and Rural West York where the share falls below 30%. This contrasts with areas with a much higher mode share towards the city centre such as Guildhall, Fishergate and Micklegate; and inner urban areas to the South, West and North of the city centre, where walking to work can represent half of all commuter journeys.

3.14.7 Those MSOAs outside of the outer ring road may be severed from amenities and destinations which are less than 2km away. The inner urban areas are home to more destinations within a 2km zone.

## 3.15 Cycling and Walking Trends

3.15.1 It is important to consider travel trends to help determine policy targets and future-proof design appropriate infrastructure. Although levels of active travel in York may have fallen in recent years, there is evidence that sustainable transport remains popular: over 50% of residents surveyed by the Council in 2021 report that they commute by cycle, or on foot.

3.15.2 The most consistent measure of modal split is the journey to work which is reported every 10 years in the Census. Travel Plans are also a useful indicator of local travel patterns

3.15.3 Cycle flows are counted at around 40 automatic counting sites and some 30 DfT traffic count sites in York. The cycle counter sites are shown in Figure 24.

3.15.4 Information on pedestrian flows is scarce, and apart from Census data, the best evidence is from footfall data in the city centre. A particular component of York's pedestrian traffic is the very high number of visitors. Latest information suggests that prior to the pandemic the city received eight million visitors a year – an average of nearly 25,000 a day.

3.15.5 The most recent figures for walking and cycling modal share for commuting (at times when travel demand is usually greatest) are shown in Table 4.

3.15.6 Census 2021 data is not being utilised for journey to work data in this analysis as at the time of data collection the UK was still subject to Covid lockdown restrictions and working from home was recommended.

3.15.7 The Propensity to Cycle Tool, which is explained in greater detail in section 4 below, projects *at least* a doubling of cycling to work (c30%) under its Go Dutch scenario which shows what would happen if we can reach average Dutch commuter cycling rates in England, accounting for improved infrastructure and differences in trip distances and hilliness between the two countries. With a significant uptake in use of e-bikes, there is potential for up to 40% of commuting trips to be made by bike.

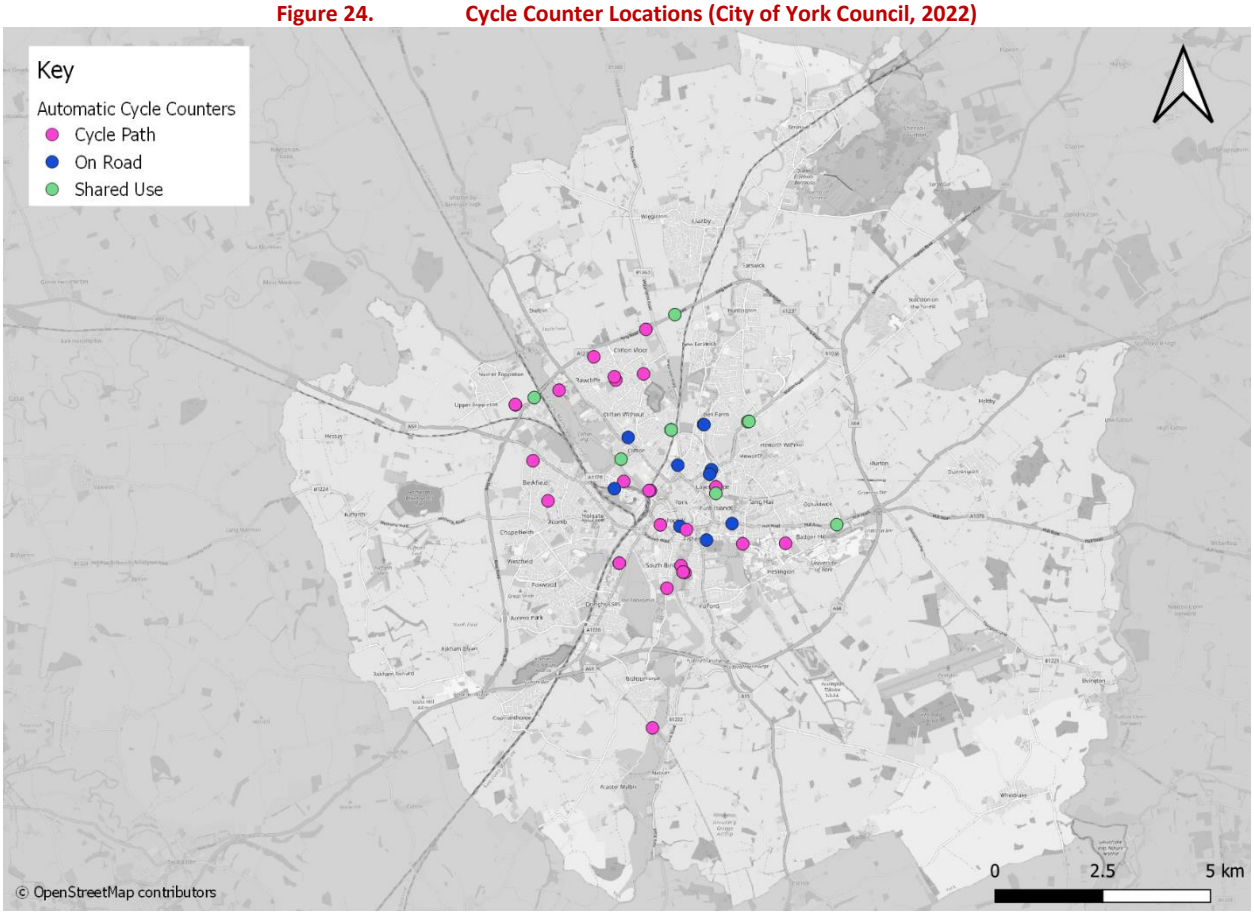
3.15.8 Cycle flows peaked in 2014 when part of the Tour de France was staged in York, at a time following significant investment in infrastructure as part of York's Cycle Demonstration Town project. Cycle flows have declined gradually since this then and decreased further during Covid as a result of many cycle commuting trips not taking place and the network of counters not always picking up leisure cycle trips.

3.15.9 Future trends remain unpredictable, however with a marked increase in working from home and a decline in public transport use since the COVID pandemic. Between 2009 and 2014, cycle flows over 12 hours rose by 30%, fell during COVID, but now look to be returning to previous levels.

Table 4. Mode Share Surveys Active Travel

| SOURCE | CYCLING MODE SHARE | WALKING MODE SHARE |
|---|---|---|
| Census (2011) | 12% | 19% |
| CoYC (2013) – 2011 data utilised | 17% | 14% |
| York Hospital (2016) | 13% | 13% |
| York Civic Trust (2019) sample size | 15% | 13%?? |
| CoYC Big Conversation (2021) | 23% | 28% |
| University of York Staff (2022) | 22% | 16% |
| University of York Students (2022) | 10%* inc. ebike/scooter | 53% |

**Figure 24. Cycle Counter Locations (City of York Council, 2022)**



# 4. DEVELOPMENT OF THE CYCLING NETWORK

## 4.1 General

4.1.1 The third stage of the LCWIP process sets out the recommended steps for mapping a future cycling network and identifying infrastructure improvements. This chapter sets out the findings from the evidence collected and analysed for the information gathering stage of the LCWIP (Stage 2).

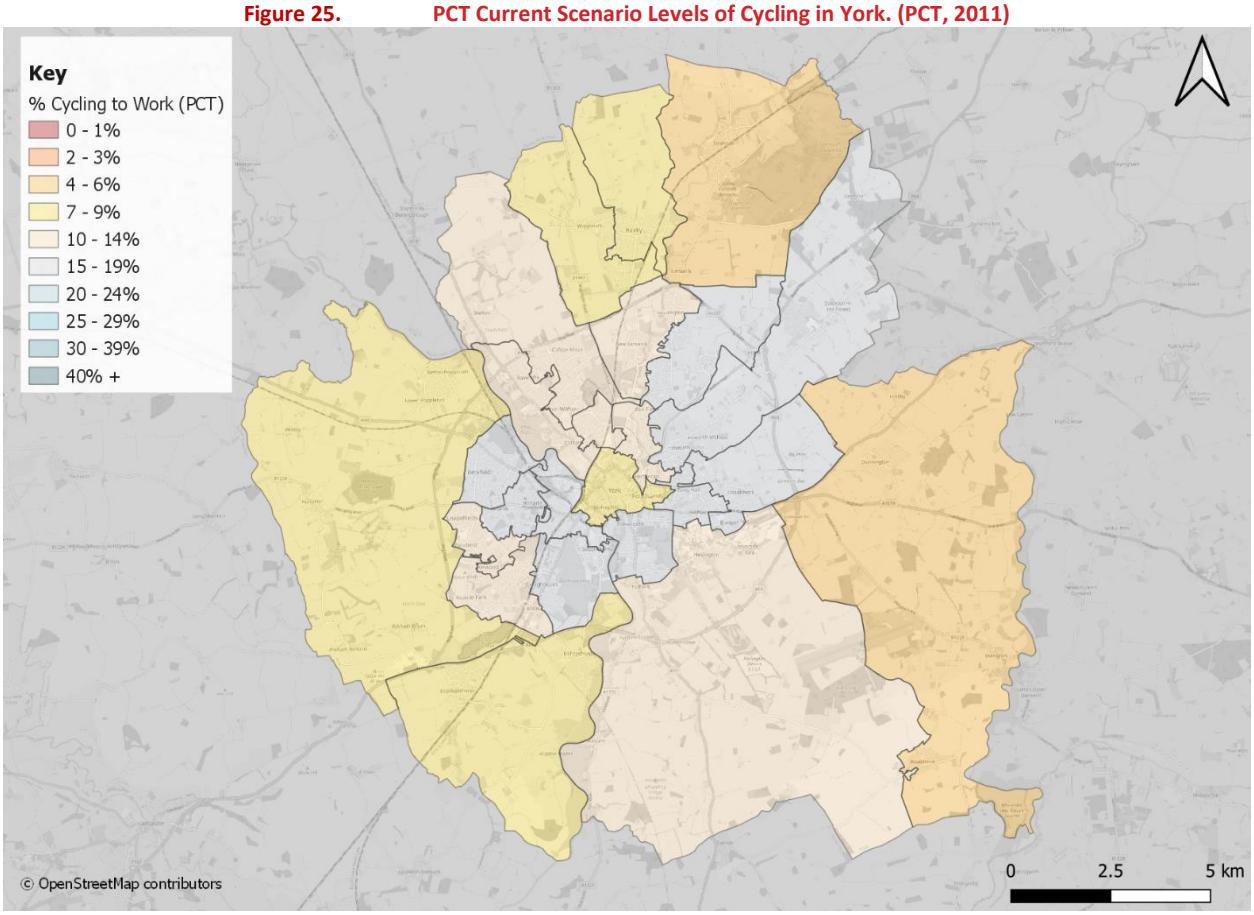
4.1.2 The cycle network analysis includes routes approaching and circumnavigating the city centre Footstreets area. Consideration of cycle access within the Footstreets area is not within the brief for this study although there are clear benefits cycle journeys traversing the city centre, for cyclists who are otherwise mobility impaired, and for cycle powered courier and delivery services. There may be merit in combining cycle access along designated streets, particularly those which might form part of a future city centre shuttle bus service.

## 4.2 Propensity to Cycle Analysis

4.2.1 The Propensity to Cycle Tool (PCT) is a strategic planning tool that provides forecasts of the levels of commuter cycling in a given area compared to the current situation under various scenarios of change. These range from meeting the Government Target in the Cycling and Walking Investment Strategy of doubling the numbers of people cycling, to an ambitious "Go Dutch" scenario in which cycling demand levels are equivalent to the Netherlands, taking account of trip lengths, terrain and improved cycling conditions. The PCT can also be used to estimate future mode share for cycling along specific corridors that can be achieved through new infrastructure.

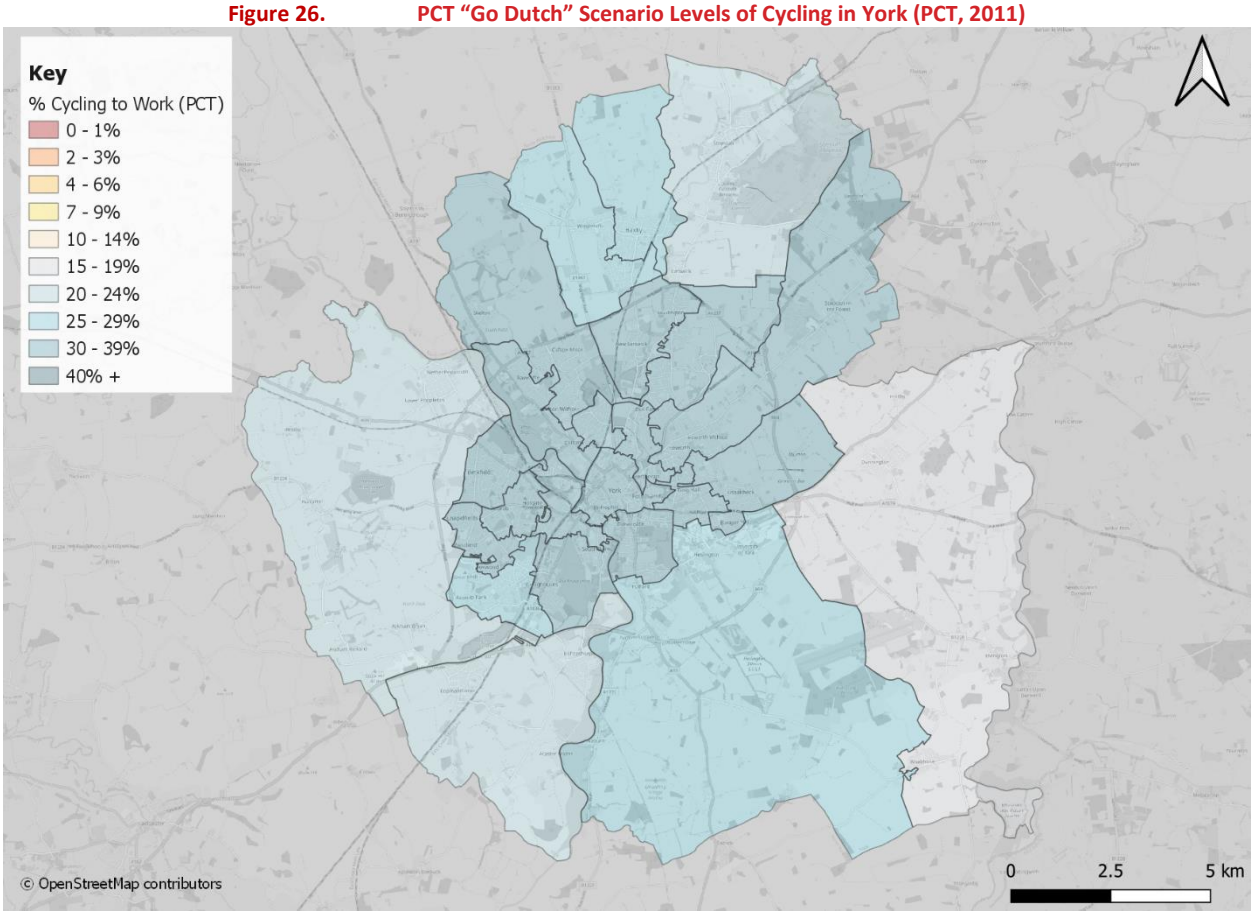
4.2.2 The Tool has several shortcomings such as it being limited to commuting and school trips with no account of future growth sites or new infrastructure. The source of the data is updated every 10 years and this analysis uses 2011 census journey to work data.

**Figure 25. PCT Current Scenario Levels of Cycling in York. (PCT, 2011)**




4.2.3 Figure 25 reveals that areas surrounding the city centre have cycle to work rates of 15% or more whilst more distant areas and the city centre have cycle rates of 6% or less. Under the Go Dutch scenario, Figure 26 shows that all areas of the city have cycle rates of 15% or more and that much of the built-up area has potential for 40% of trips to be made by cycle.

Figure 26. PCT "Go Dutch" Scenario Levels of Cycling in York (PCT, 2011)




4.2.4 This section sets out the findings of the PCT analysis for York and the methods used. It is strongly recommended by the DfT's LCWIP technical guidance that local authorities use the PCT in the LCWIP process to map trip origins and destinations (trip generation), identify desire lines for cycle trips (trip distribution) and allocate trips to specific routes (trip assignment).

4.2.5 The outputs from the PCT are expressed in terms of one-way daily cycling flows, and the outputs can be shown as:

- Straight Lines - representing the desire lines or origin-destination pairs. Each line has information showing the distance between the origin-destination point, how many commuters in total take this route, how many of these commuters currently cycle and what the propensity for cycling is; and
- Route Network – aggregates all the cycling flows using the shortest distance between locations mapped onto the road network. This prioritises the most direct routes but does not show potential off-road routes. More analysis will be conducted to identify the most cycle-friendly routes.

4.2.6 The straight-line analysis of the Top 50 cycle flows using the Go Dutch scenario in Figure 27 shows the significance of city centre, Clifton Moor and Rawcliffe, Strensall and Huntington Road, and the University of York as foci for cycling activity.

4.2.7 Mapping this demand onto the local route network in Figure 28 and Figure 29, shows the obvious demand for cycling close to the city centre, inner suburbs and areas to the North of the city. Routes with significant demand (red) include:

- Inner ring road between Micklegate Bar and Lord Mayors Walk;
- Blossom St and Holgate Road;
- Clarence St and Haxby Road;
- Bootham and parts of Rawcliffe Lane; and
- The Foss Islands Cycle Path between Wigginton Road and James St.

4.2.8 It is significant too that demand for cycling extends beyond the city centre and across the Outer Ring Road towards Haxby and Strensall.

4.2.9 We have not examined primary school journeys as the journeys are shorter, route networks are denser, and with 50+ primary schools in the city, they are more scattered making a high-level route network analysis more difficult.

4.2.10 The analysis of secondary school journeys in Figure 30 shows demand for cycling along Haxby Road towards Joseph Rowntree School, along Huntington Road towards Huntington School, routes close to Millthorpe/All Saints and Vale of York Schools, Tang Hall Lane towards Archbishop Holgate School, and along Millfield Lane towards Manor School.

Figure 27. PCT Outputs for the Go Dutch Scenario (PCT, 2011)

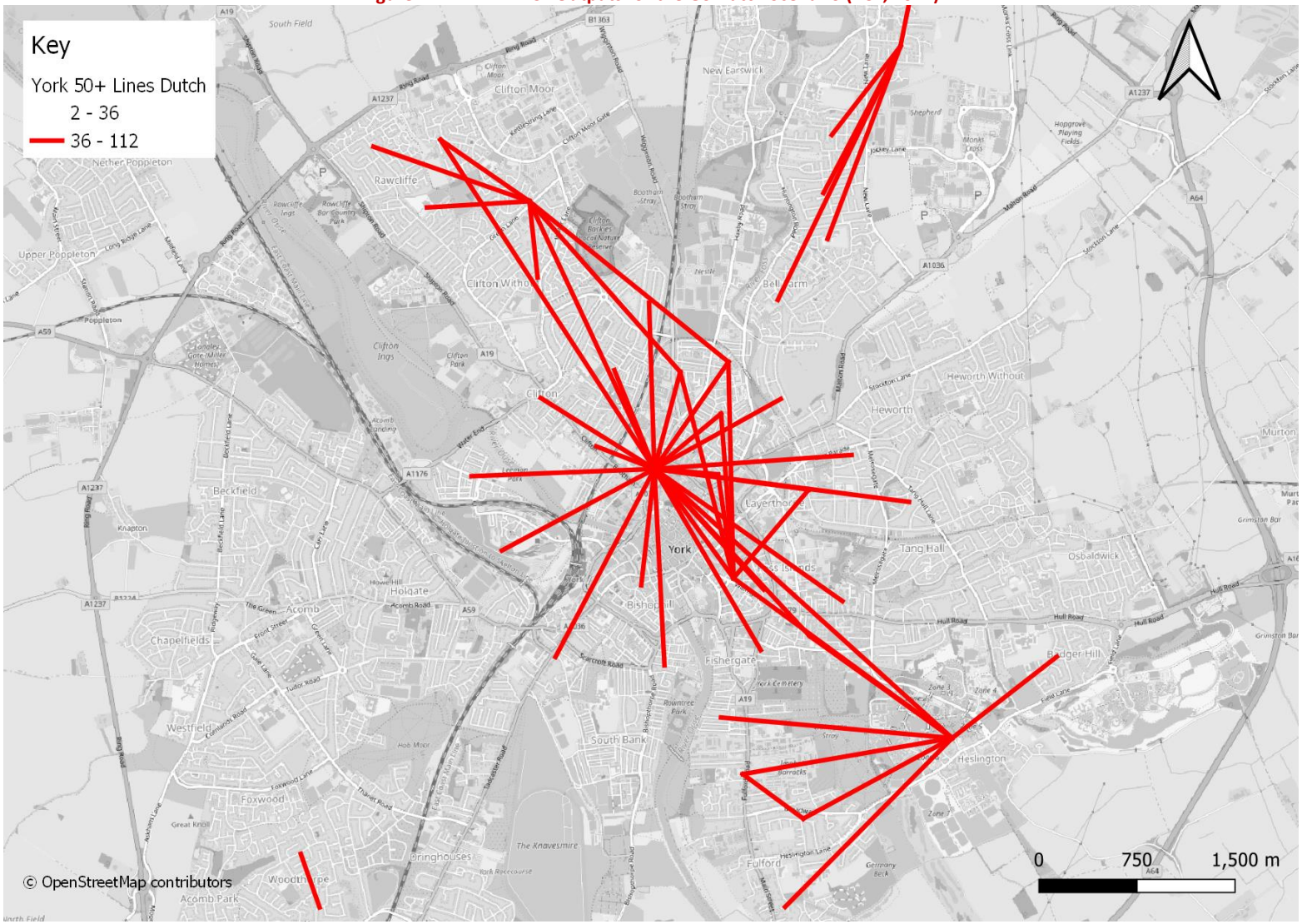


Figure 28. PCT Analysis – Cycle Demand for Commutes Mapped onto Local Routes (PCT, 2011)

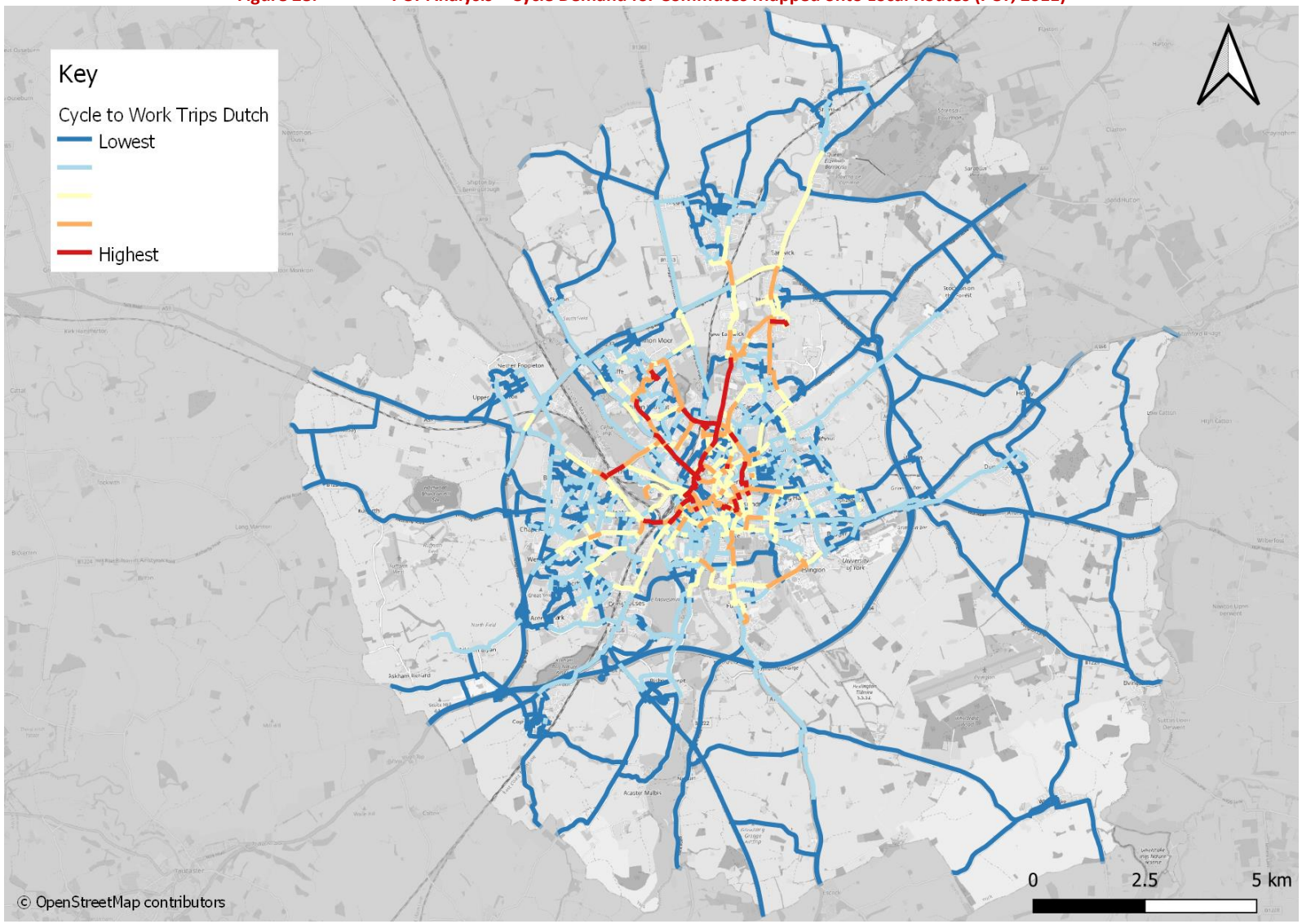


**Figure 29.** PCT Analysis – Cycle Demand for Commutes Mapped onto Local Routes (City Centre) (PCT, 2011)

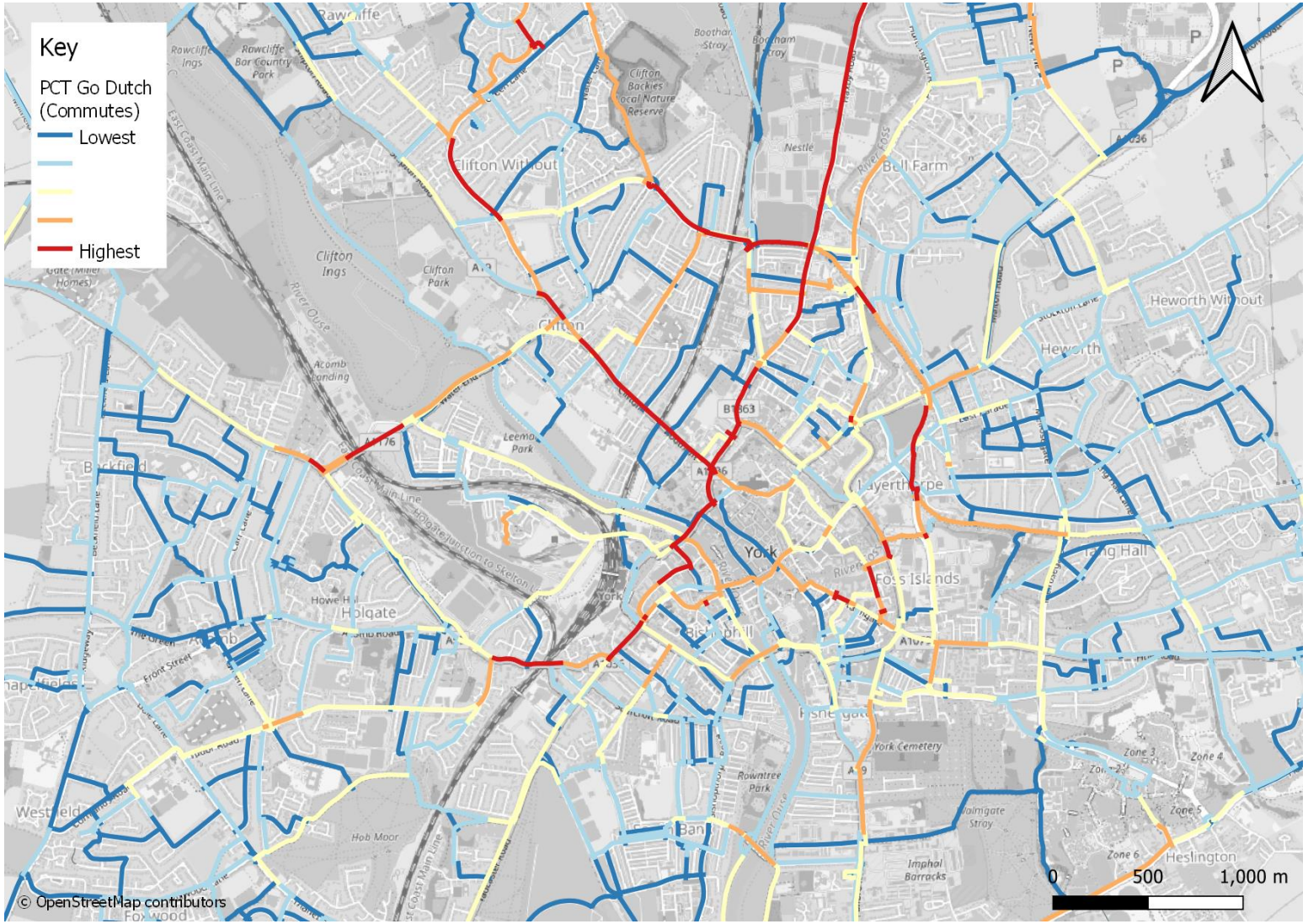
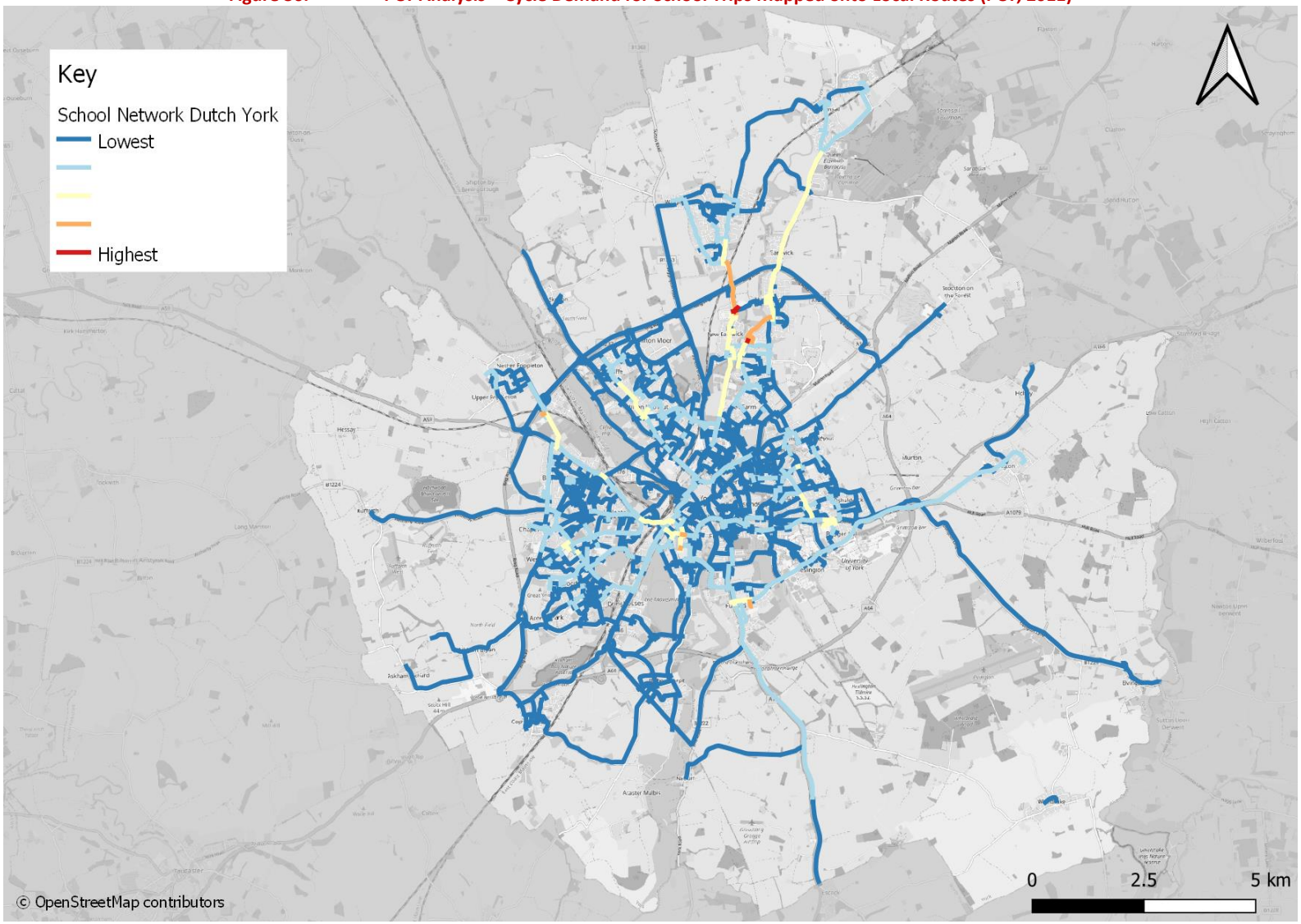


Figure 30. PCT Analysis – Cycle Demand for School Trips Mapped onto Local Routes (PCT, 2011)



## 4.3 Origin and Destination Analysis

4.3.1 The PCT provides a detailed analysis of existing and potential cycling trips related to commuting to work or school. However, nationally commute trips make up only 20% of total cycle trips. There are a wide range of other trips that people will make by cycling, many of these to visit other destinations, but also those made solely for the pleasure of cycling. This section considers the potential demand for and origins and destinations of these trips in York. The approach to origin and destination analysis is detailed below.

4.3.2 Key origins and destinations have been mapped in Figure 31, including the centroids of residential areas and significant trip generators, including those listed below:

- Town centres;
- Key employment sites;
- Major retail centres;
- Hospitals, surgeries and healthcare sites;
- Public transport hubs;
- Secondary schools and places of higher education;
- Leisure facilities and entertainment spaces;
- Parks and greenspace; and
- Future development sites.

4.3.3 Doctors' surgeries and supermarkets are shown on the map but have not been included in the desire line mapping due to their smaller size and the challenges and logistics of using active travel for that trip purpose.

4.3.4 To clearly identify key future desire lines, the five largest future employment sites were selected and plotted from the local plan, alongside the five largest housing development sites. The future employment sites included:

- ST5: York Central 100,000sqm B1a;
- ST19: Land at Northminster Business Park (15ha) 49,500sqm B1c, B2 and B8. May also be suitable for an element of B1a;
- ST27: University of York Expansion (21.5ha) Campus East and ST27 will across both sites deliver up to 25ha of B1b knowledge-based businesses including research led science park uses identified in the existing planning permission for Campus East;
- ST26: Land South of Airfield Business Park, Elvington (7.6ha) 25,080sqm B1b, B1c, B2 and B8; and
- ST37: Whitehall Grange, Wigginton Road (10.1ha) 33,330sqm.

4.3.5 The key future housing sites included:

- ST1: British Sugar/Manor School (46.3ha) 1,200 dwellings;
- ST5: York Central (35ha) 1,700 dwellings;
- ST8 Land North of Monks Cross (39.5ha) 968 dwellings;
- ST14: Land West of Wigginton Road (55.0ha) 1,348 dwellings; and
- ST15: Land West of Elvington Lane (159.0ha) 3,339 dwellings.

4.3.6 To plot origins across the York LCWIP study area each LSOA was given a centroid with sense checks performed to ensure that the centroids were plotted in rational residential areas that clusters of journeys are likely to begin from. Given the size of the study area, the

distribution of origins and the range of destinations, this origin and destination analysis is split into separate categories to produce different outputs based on influencing factors.

4.3.7 The next stage was to connect the origin centroids to the major destinations. The first category detailing daily non-commuting lines in Figure 32, desire lines were drawn from every origin to connect to York Station, York Hospital and to the nearest large retail centre by distance.

4.3.8 The process to identify the higher and further education desire lines illustrated in Figure 30 involved a combination of origin locations. To ensure accurate and realistic desire lines produced for both the University of York and York St John University, centroids were plotted in the locations of each university's respective student accommodation and housing sites.

4.3.9 Likewise, to accurately establish key desire lines in relation to future housing developments, origin centroids have been plotted in each of the top five housing sites with lines to the daily and future employment destinations sites.

4.3.10 Figures 32, 33, 34, 35 detail the various origins for each scenario connected to their associated destinations. Every origin connects to the nearest destination of that category but as is evident for large trip attractors such as York Central and York Hospital, desire lines have been plotted to every origin under that scenario. This process illustrates all the possible non-commuting desire lines as well as some potential future commuting and non-commuting desire lines based on the locations of the largest planned housing and employment developments.

4.3.11 Based on the trends in the origin and destination connections, Figure 37 shows the key corridors in yellow identified for York in addition to the desire lines from the PCT. This combines PCT commuting and school trip data with the wider origin/destination analysis which includes a wider spread of trips, such as leisure and shopping.

**Figure 31. Key Destinations in York**

**Figure 32. Desire Lines derived from Origin and Destination Mapping (Daily)**

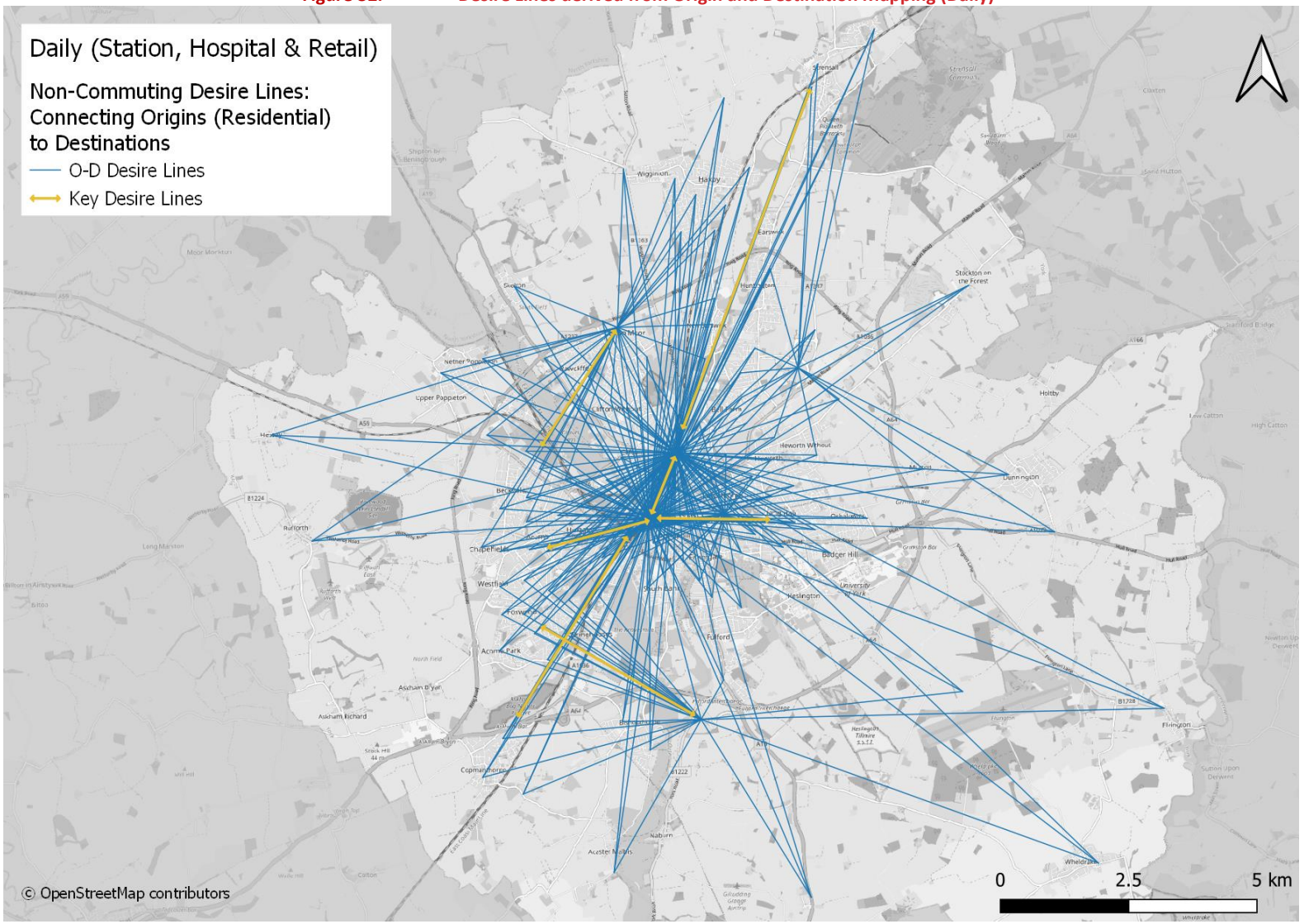
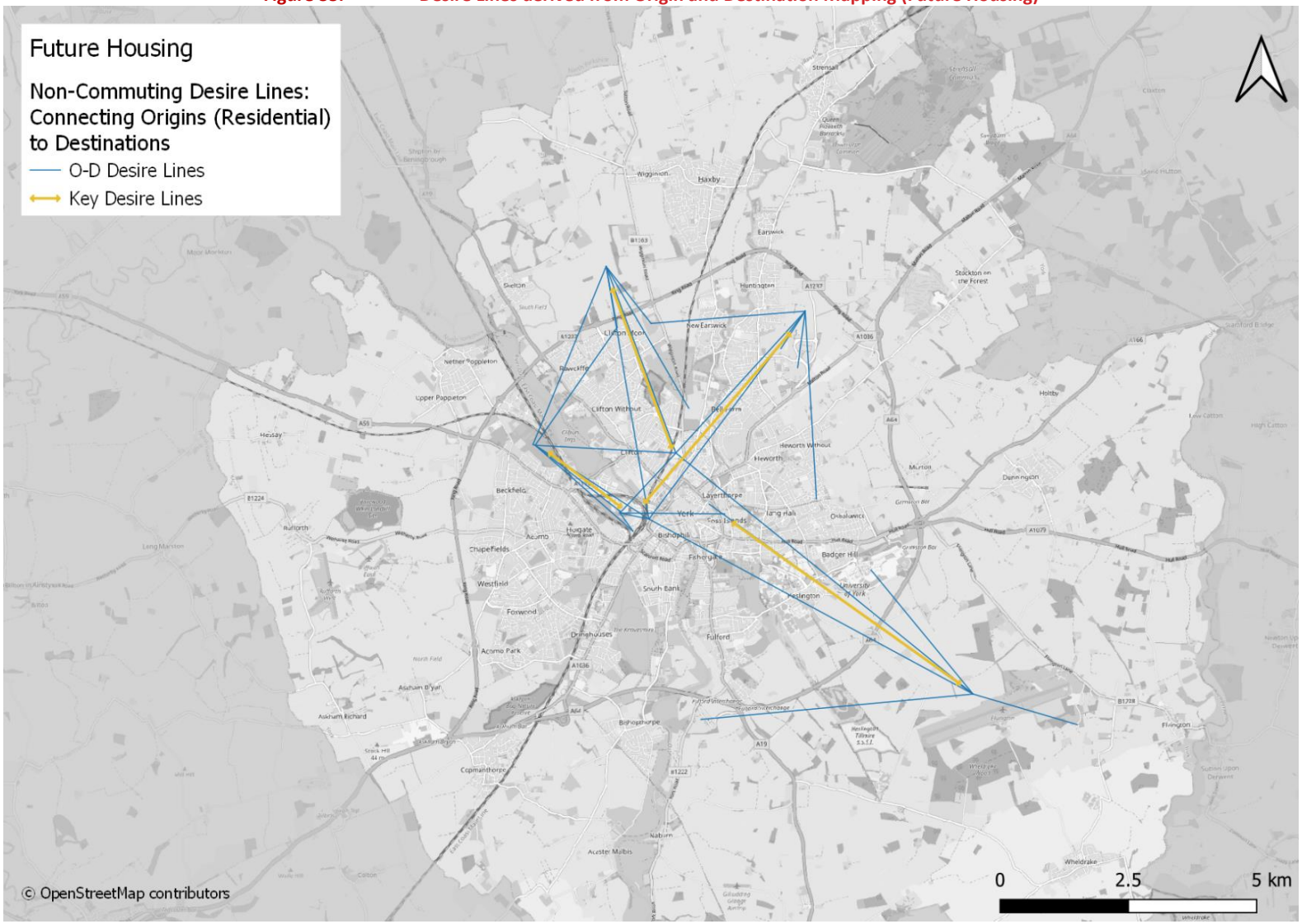


**Figure 33. Desire Lines derived from Origin and Destination Mapping (Education)**

**Figure 34. Desire Lines derived from Origin and Destination Mapping (Future Employment)**

**Figure 35. Desire Lines derived from Origin and Destination Mapping (Future Housing)**



## 4.4 Strava Data

4.4.1 Strava collects GPS data from people signing up to the platform who wish to monitor and report their active travel journey data.

4.4.2 Figure 36 below shows Strava Cycling Heat Map data. The white lines illustrate the most popular routes, showing that there are a significant number of trips on the urban road network, but which also extend beyond the outer ring road and across the study area.

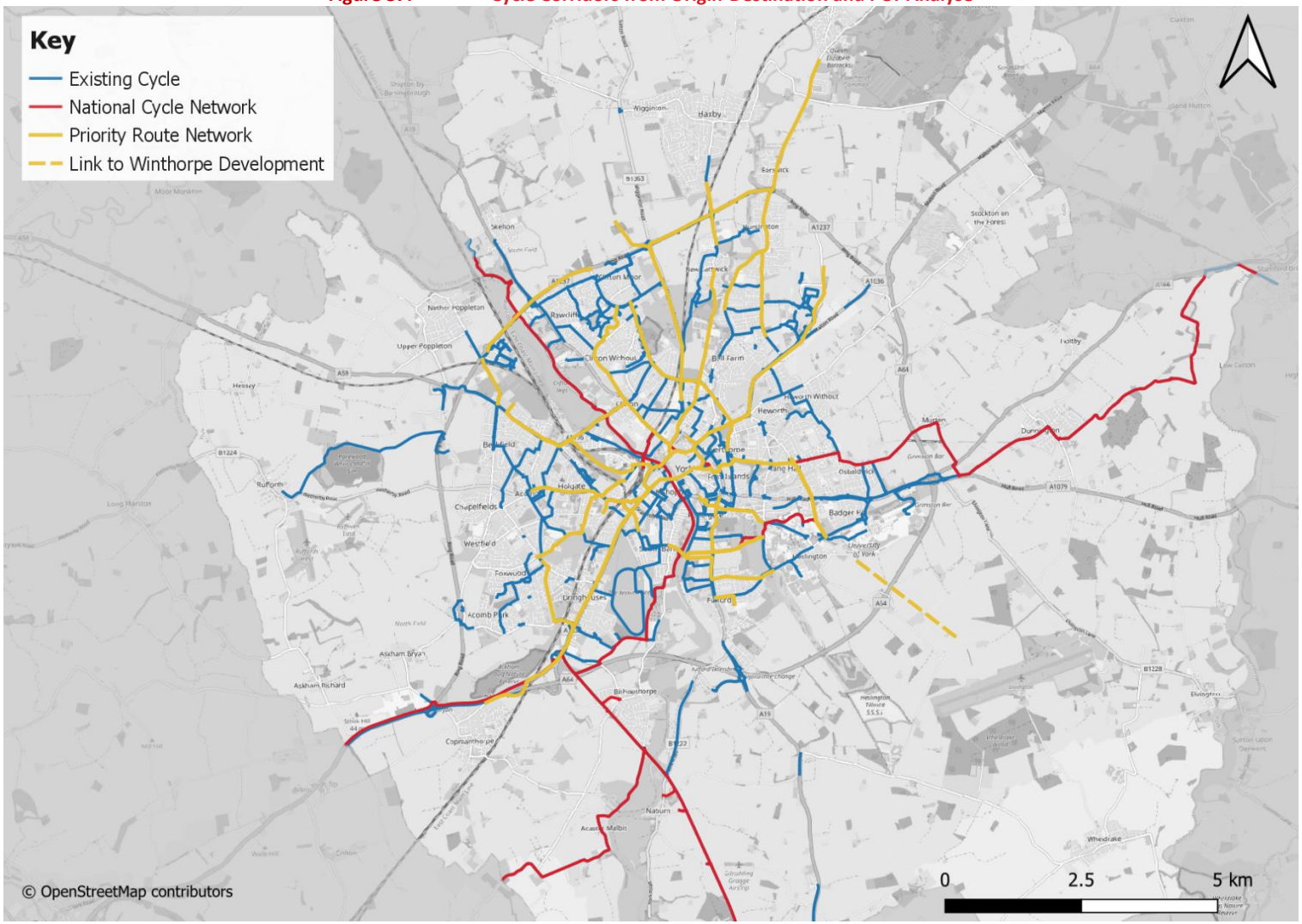
4.4.3 It is important to note that this provides us with information on primarily recreational trips (note the University of York Cycle Circuit); it offers little insight into routes that have potential if there were infrastructure improvements for instance. It can also be assumed that Strava users tend to be more confident cyclists and therefore less deterred by traffic flows and other potential barriers than new or less confident cyclists.

**Figure 36. Strava Cycling Heat Map (Strava, 2023)**

## 4.5 Map of Cycle Demand

4.5.1 The corridors and routes identified by the PCT analysis, and the origin-destination analysis have been mapped onto the road and path network in GIS to illustrate the overall cycle route network and priority routes in Figure 37.

**Figure 37. Cycle Corridors from Origin-Destination and PCT Analyse**



## 4.6 Route Prioritisation

4.6.1 A priority route network is shown in Fig 37 including a total of 37 routes identified as showing high demand and worthy of consideration as priority routes; a few were short lengths, but the vast majority were over 1km.

4.6.2 Later in the study programme, we aim to look in more detail at possible infrastructure designs along 10 sections of priority cycle route. The requisite sifting process is described below. Several routes were not scored as there is already a commitment to deliver them. These routes are at various stage of planning and improvements and are set to be delivered as plans allow:

- Tadcaster Road -Askham Bar to Scarcroft Road (Scheme underway 2023);
- York Central Spine Road (design stage);
- A1237 - Monks Cross to A19 (design stage);
- York Road – Beckfield Lane to The Fox (design funding bid);
- Foss Islands Route Improvements (Sustrans, within 2 years);
- Bootham (CoYC, within 2 years, subject to funding); and
- Winthorpe – University (Developer, delivery date TBC).

4.6.3 We included 34 routes for scoring (See Table 5 below), sourced from both the PCT and O/D analysis as follows:

- PCT Commuting – 11;
- PCT Secondary Schools – 5;
- O/D Analysis Day to Day Journeys – 6;
- O/D Analysis Further & Higher Education – 5;
- O/D Analysis Growth Sites Employment – 4; and
- O/D Analysis Growth Sites Housing – 3.

**Scoring Process**

4.6.4 When selecting cycle routes, the LCWIP Technical Guidance recommends that the following criteria are considered:

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

4.6.5 The Propensity to Cycle analysis considers levels of demand and applies this to the existing cycle network, responding to the criteria of Directness and to an extent, Coherence. As the information was readily available in GIS layers, we have also utilised the following sources of data in the scoring process:

- Crashmap data for serious and fatal collisions involving cyclists over the last 5 years (Safety);
- Safe Streets York Commonplace map of local safety concerns which attracted comments on a range of specific issues (Safety, Comfort, Attractiveness);
- York Cycle Campaign Rate my Route survey data (Safety, Comfort, Attractiveness);

- Census data on Health Deprivation and whether a route passed beside or through an area within areas of top 20% health deprivation, alongside a score if the route passed along a route within the Air Quality Management Area (AQMA) (Safety, Attractiveness); and
- Census data on short car journeys under 5km to identify potential impact on congestion.

4.6.6 The highest scoring routes (excluding Bootham and Foss Islands Path) are listed below and shown in Table 5:

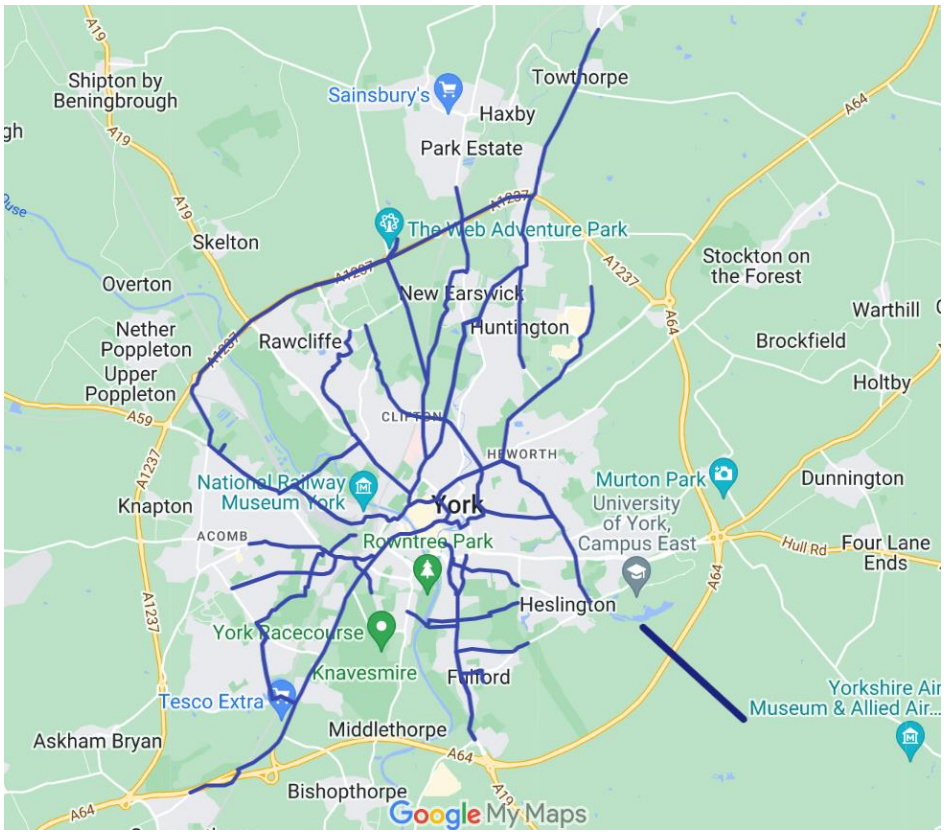
1. Hamilton Drive to Micklegate;
2. York Rail Station to Lord Mayors Walk via Lendal Bridge;
3. Strensall to York Hospital via New Earswick;
4. Tang Hall Lane to York Rail Station via Ouse Bridge;
5. Copmanthorpe to York Rail Station via Tadcaster Road;
6. Front St, Acomb to York Rail Station;
7. York College to Ouse Bridge via Tadcaster Road;
8. Heworth Green to York Central site via Lendal Bridge;
9. Boroughbridge Road (British Sugar Site) to York Central and city centre;
10. Monks Cross Housing site to city centre;
11. Strensall to Huntington and Huntington School;
12. Tang Hall Lane to University of York; and
13. University of York to city centre via Heslington Road.

4.6.7 Following consultation with stakeholders the following sections were added to the first pass of the priority route network and are summarised in Figure 38.

- Fishergate;
- Fulford Road from Broadway to Germany Beck;
- Hamilton Drive to Gale Lane; and
- Tang Hall Lane north of Foss Islands Line.

4.6.8 Concerns were raised about the lack of a safe link between Dunnington and the rest of York, including links to Archbishop Holgates School. Further evidence of demand for this connection is required. Plans for the new development at Whinthorpe should include a new connection across the A64 and improved signal crossing measures at Grimston Bar Roundabout.

**Figure 38. Priority Cycle Route Network (Google Maps)**




4.6.9 After taking account of planned schemes and overlapping routes, the following route sections were recommended for concept design:

1. Boroughbridge Road (Plantation Drive for British Sugar Site) – Water End – Salisbury Road (take account of York Central schemes) ;
2. Strensall, York Rd Roundabout, Outer Ring Road. (Consider possible link to proposed Haxby Rail Station using Towthorpe Road;
3. Outer Ring Road - Huntington Road - Huntington School – Link Road;
4. Link Road – Haxby Road – Foss Islands Path/Nestle South Housing site (as an alternative Strensall to Hospital route avoiding Bootham Stray;
5. Heworth Green Rbt – Monkgate – Monk Bar;
6. Tang Hall Lane (Foss Islands Path) – Windmill Lane – Field Lane - University of York;
7. Ouse Bridge - Micklegate Bar – Scarcroft Road;
8. The Fox/Holgate Road– Blossom St (include Hamilton Drive from Caroline Crescent and consider key links to cycle routes behind Fox pub, at Wilton Rise, Dalton Terrace and Station Car Park rear entrance);
9. Station Rise – Lendal Bridge – Gillygate – Clarence St – Hospital; and
10. University of York – cycle route Behind The Retreat – Heslington Road – Mill St/Piccadilly

## 4.7 Cycle Parking

4.7.1 This study does not include an audit of cycle parking provision. The need for additional facilities should be considered as part of the route design process.

## Table 5. Route Prioritisation

| | **York LCWIP Cycle Route Prioritisation** | | Low Score | Medium Score | High Score | | | |
|---|---|---|---|---|---|---|---|---|
| | PCT Analysis and Usage Estimate (Routes inc red and brown sections) | | **Cycle Collisions** | **Commonplace Comments** | **Cyclist User Rating** | **Health Deprivation, Air Quality** | **Short Car Journeys** | **Scoring** |
| Scheme No. | *Directness, Coherence, Strategic Value (usage)* | *Distance (Km)* | *Safety* | *Safety, Comfort, Attractiveness* | *Safety, Comfort, Attractiveness* | *Safety, Attractiveness* | | |
| | **Link (Grouped by source)** | | | | | | | |
| | ***PCT Commuting (13)*** | | >4, >2 | >20 >10 | >50%red >30%red and orange | 1 for each | 2 or zero | |
| A1 | Micklegate Bar - Blossom St - Iron Bridge - Hamilton Drive - Hollybank Road | 1.2 | 5 | 22 | 100% red | Health + AQMA | Yes | **** |
| A2 | Boroughbridge Road/Carr lane - Water End - Clifton Green Junction | 1.8 | 0 | 25 | 80% red | AQMA | | ** |
| A3 | Bootham (Bootham Bar to Rawcliffe Lane) | CoYC Scheme | | | | | | |
| A4 | Shipton Road - Rawcliffe Lane - Ebsay Drive - Clifton Moorgate | 2 | 1 | 7 | 70% red | | | |
| A5 | Rail Station - Lendal Bridge - Gillygate - Lord Mayors Walk | 0.9 | 2 | 21 | 90% red | Health +AQMA | Yes | *** |
| A6 | Lord Mayors Walk - Clarence St - Haxby Road - Foss Islands Cycle Route | 1 | 0 | 4 | 20% orange | AQMA | Yes | |
| A7 | Haxby Road (Foss Islands Cycle Route to New Earswick Centre) | 2 | 0 | 5 | 10% orange | Health | | |
| A8 | Wigginton Road - Crichton Ave - Clifton Backies - Clifton Moorgate | 1.6 | 2 | 10 | 10% red 40% orange | Health | Yes | |
| A9 | Geldof Road - New Lane - Huntington Road | 1.6 | 3 | 1 | 30% red | | | |
| A10 | Foss Islands Cycle Route (Wigginton Road to James St) | Sustrans Scheme | | | | | | |
| A11 | UofY boundary to Bishopthorpe Road via Walmgate Stray | 2.7 | 0 | 13 | 30% orange | | Yes | |
| A12 | UofY boundary to Hospital Fields Road via Heslington Lane, Broadway and Fulford Road (nightime route) | 1.9 | 1 | 11 | 20% red | | | |
| A13 | Fulford Road (Hospital Fields Road to Inner Ring Road via Cemetery Road) | 1.6 | 0 | 8 | 30% red | Health + AQMA | Yes | ** |
| | ***PCT Schools (5)*** | | | | | | | |
| B1 | Huntington Road (Brockfield Rd - Huntington School - Strensall Barracks) | 5 | 2 | 23 | 100% red | | | ** |
| B2 | Haxby Road (Nestle - JoRo School - Eastfield Ave, Haxby) | 3.5 | 0 | 13 | 30% red | Health | | |
| B3 | Hamilton Drive - Holgate Bridge - Dalton Terace - Albemarle Road - Millthorpe School | 1.2 | 0 | 11 | 20% red, 10% orange | AQMA | Yes | |
| B4 | Millfield Lane - Manor School - Level Crossing | 0.9 | 1 | | 100% orange | | | |
| B5 | Heslington Lane (Fulford Road to Fulford School) | 0.5 | 0 | 2 | 70% red | | | |
| | ***Day to Day Journeys*** | | | | | | | |
| C1 | Millfield Lane - York Outer Ring Road - Manor Lane - Clifton Moor Retail | 4.2 | 1 | 15 | 25% red 70% orange | | | |
| C2 | Strensall Barracks - Outer Ring Road - New Earswick - Bootham Stray - Wigginton Road - Hospital | 7.6 | 2 | 31 | 50% red 50% orange | Health + AQMA | | *** |
| C3 | Tang Hall Lane - NCN66 - Hungate - Ouse Bridge - riverside - Station | 3.8 | 4 | 25 | 20% red | Health + AQMA | Yes | *** |
| C4 | Thanet Road (Lidl) - Challoners Road - Tesco/York College | 2.2 | 1 | 8 | 40% red 30% orange | | | |
| C5 | Copmanthorpe - Tadcaster Road - Station | 6.2 | 5 | 38 | 60% red 30% orange | Health + AQMA | Yes | **** |
| C6 | Front St - Acomb Road - Holgate Road - Station Car Park | 2.8 | 6 | 21 | 60% red | Health + AQMA | | *** |
| | ***Further/Higher Education (4)*** | | | | | | | |
| D1 | Ouse Bridge - Micklegate - Tadcaster Road - York College | 4 | 5 | 38 | 70% red 20% orange | Health + AQMA | Yes | **** |
| D2 | Tang Hall Lane/Fifth Ave - NCN66 - Hungate - Aldwark - Lord Mayors Walk - York SJ | 2.6 | 1 | 8 | 10% red 10% orange | | Yes | |
| D3 | Tang Hall Lane/Fifth Ave - Hull Road - Windmill Lane - UofY | 1.5 | 0 | 5 | 50% red | Health | Yes | ** |
| D4 | Bishopthorpe Road/Butcher Terrace - Millennium Bridge - Walmgate Stray - UofY | 2 | 0 | 13 | 5% red 50% orange | | Yes | |
| D5 | University boundary - The Retreat - Heslington Road - Barbican - Picadilly | 1.7 | 2 | 7 | 40% red 40% orange | Health + AQMA | Yes | ** |
| | ***Growth Employment (4)*** | | | | | | | |
| E1 | Tang Hall Lane/Fifth Ave - Hull Road - Windmill Lane - UofY | 1.5 | 0 | 5 | 50% red | Health | Yes | ** |
| E2 | Foxwood Lane/St Helens Road - Hobmoor - Beech Ave - Wilton Rise - York Central | 2.5 | 1 | 17 | 20% red 10% orange | Health | Yes | |
| E3 | Heworth Green/Stockton Lane - Monkgate - Lendal Bridge - Leeman Road - York Central | 2.5 | 7 | 20 | 60% red 20% orange | AQMA | Yes | *** |
| E4 | Haxby/Eastfield Ave - Ring Road - Land West of Wigginton Road | 2.8 | 0 | 6 | 20% red | | | |
| | ***Growth Housing (5)*** | | | | | | | |
| H1 | British Sugar/Boroughbridge Road - Water End - York Central - Lendal Bridge - City Centre | 3.4 | 0 | 21 | 50% red 50% orange | | Yes | *** |
| H2 | Land west of Wigginton - Wigginton Road - York Hospital | 2.7 | 0 | 8 | 20% red 20% orange | | Yes | |
| H3 | Land north of Monks Cross - Retail Park - Vanguard Shopping Centre - Malton Road - Heworth Green - Monkgate - City Centre | 4.4 | 6 | 20 | 30% red 30% orange | AQMA | Yes | *** |
| H4 | Winthorpe (Elvington Airfield) - University (new A64 bridge) | Developer Scheme | | | | | | |

# 5. DEVELOPMENT OF CORE WALKING ZONES

## 5.1 General

5.1.1 There is a marked absence of data relating to walking journeys when compared to cycling which partly explains the lack of tools and models to help plan walking networks.

5.1.2 As noted in 3.1.2, in most urban areas, the dense network of footways, alleyways and service roads forms an extensive pedestrian network. In the city centre, access restrictions have created one of the largest pedestrianised areas in Europe.

5.1.3 When compared to cycling, small-scale interventions can be highly effective in promoting pedestrian safety and encouraging walking. Such measures can include, amongst others:

- Adjusting crossing times at pedestrian crossing signals;
- Emphasising pedestrian priority at minor side roads;
- Removing pedestrian guardrail and providing more direct crossing places;
- Providing flush drop kerbs at crossing points; and
- Widening footways at pedestrian pinch points.

## 5.2 Core Walking Zones

5.2.1 Core Walking Zones (CWZ) can provide a more focussed approach to developing local walking networks. The LCWIP guidance recommends that:

- CWZs should consist of a few walking trip generators that are located close together - such as a town centre or business parks;
- An approximate five-minute walking distance of 400m should be used as a guide to the minimum extents of CWZs;
- All pedestrian infrastructure should be deemed as important within the CWZs; and
- Once the CWZs have been identified, the important pedestrian routes (key walking routes) that serve them should then be located and mapped.

5.2.2 There is merit in selecting Core Walking Zones based on principal walking trip generators such as local retail centres, areas with higher rates of walking commuting, and areas close to significant visitor attractions within the urban area.

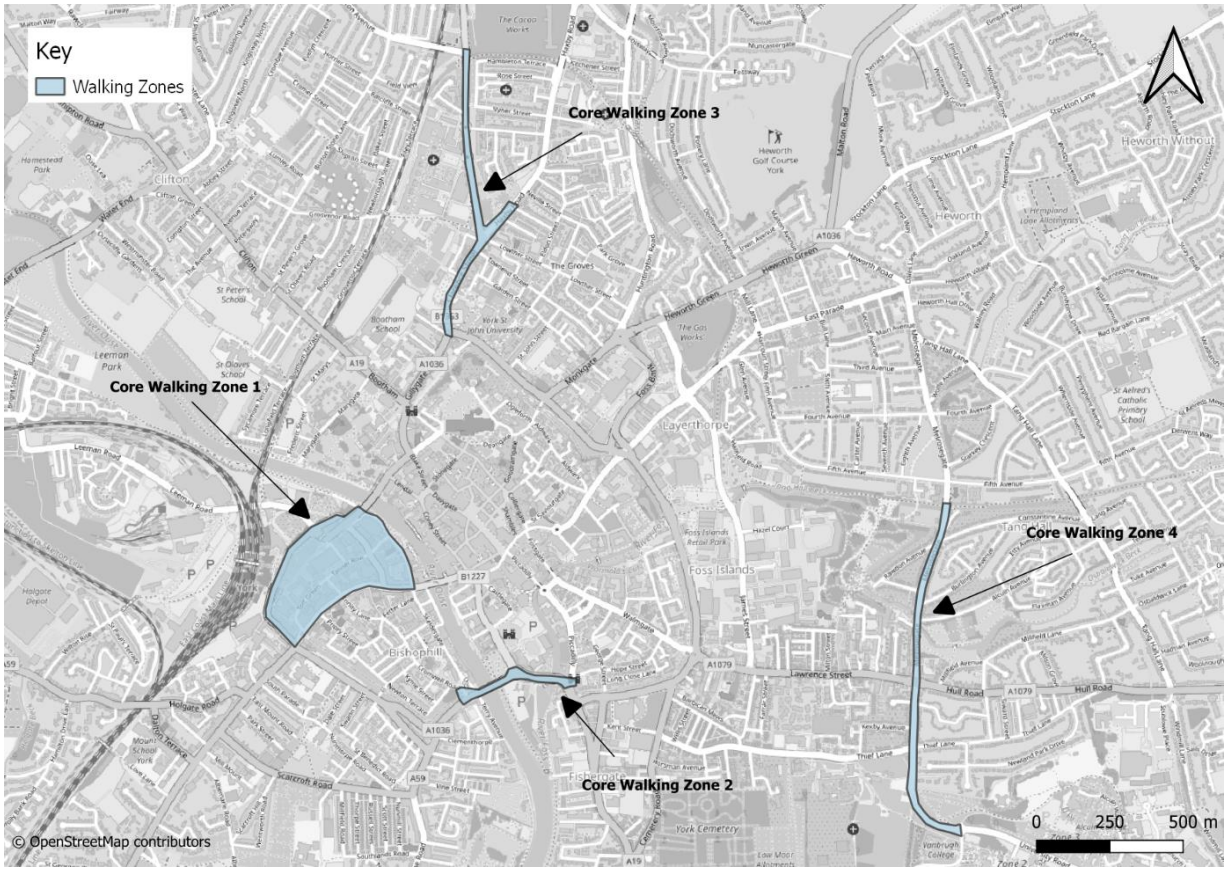
5.2.3 Areas with the highest commuter walking journeys under 2km include the city centre and are shown previously in Figure 22.

5.2.4 As the city centre Footstreets area has particular characteristics which benefit pedestrians and has been the subject of several previous accessibility and parking studies, it was omitted from consideration as a CWZ.

5.2.5 The Steering Group suggested four potential core walking zones. These represented a selection of areas of pedestrian activity and specific walking routes. The following were presented to stakeholders and taken forward for concept design (Figure 39).

1. The city centre quadrant between Micklegate and the River Ouse upstream of Ouse Bridge, to include the inner ring road junctions at Micklegate Bar, the station and Lendal Gyratory (Taking account of Station Gateway proposals and connection to York Central via Leeman Road);
2. Fishergate and Tower St/Skeldergate Bridge, particularly to cover the missing section of the Walls Walk (taking account of Castle Gateway super crossing);
3. Clarence St, Wigginton Rd as far as Crichton Ave and Foss Islands Path, lower Haxby Road and links to The Groves LTN: all to cover access to the hospital; and
4. Melrosegate/Hull Road, University Road to the first University of York roundabout.

**Figure 39. Core Walking Zones**



# 6. FURTHER READING

6.1.1 York Cycle Campaign, 42 Ways to Transform York (2023)

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**Edinburgh – Thistle Street**
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United Kingdom
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