North Yorkshire County Council & Selby District Council

LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN

Selby District

70053616/100
APRIL 2020

CONFIDENTIAL

North Yorkshire County Council & Selby District Council

LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN

Selby District

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. 70053616

OUR REF. NO. 70053616/100

DATE: APRIL 2020

North Yorkshire County Council & Selby District Council

LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN

Selby District

WSP

Amber Court
William Armstrong Drive
Newcastle upon Tyne
NE4 7YQ

Phone: +44 191 226 2000

Fax: +44 191 226 2104

WSP.com

QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	First Draft	Second Draft	Third Draft	Final Draft
Date	19/07/2019	13/09/2019	03/02/2020	29/04/2020
Prepared by	H Kinneavy	H Kinneavy	H Kinneavy	H Kinneavy
Signature				
Checked by	P Freestone	P Freestone	P Freestone	P Freestone
Signature				
Authorised by	C Whitfield	C Whitfield	C Whitfield	C Whitfield
Signature				
Project number	70053616	70053616	70053616	70053616
Report number	V0.1	V0.13	V0.15	V1.0
File reference	Projects\700536xx\70053616 - NYCC Selby LCWIP - Ph 1\03 WIP\TP Transport Planning\05 Reports			

CONTENTS

TABLES

FIGURES

APPENDICES

1

INTRODUCTION

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy (CWIS), are a new, 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, typically over a 10-year period, and form a vital part of the Government's strategy to increase the number of trips made on foot or by cycle.

1.1.2 The key outputs of LCWIPs are:

- a network plan for walking and cycling which identifies preferred routes and core zones for further development;
- a prioritised programme of infrastructure improvements for future investment; and
- a report which sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network.

1.1.3 By taking a strategic approach to improving conditions for cycling and walking, LCWIPs will assist Local Authorities (LAs) to:

- identify cycling and walking infrastructure improvements for future investment in the short, medium and long term;
- ensure that consideration is given to cycling and walking within both local planning and transport policies and strategies; and
- make the case for future funding for walking and cycling infrastructure.

1.2 LCWIP PROCESS

1.2.1 The Department for Transport (DfT) has produced guidance to develop a LCWIP; this defines 6 distinct stages in the production of an LCWIP, as outlined below.

Table 1-1 – The 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.

1.2.2 The Selby District LCWIP will be split into two distinct phases.

- The Phase 1 project report details the evidence review and network development process, reflecting Stages 1 to 4 of the LCWIP guidance.
- The Phase 2 project report details the development of network priorities into 'bid-ready' schemes, commensurate with Stage 5 of the LCWIP guidance.

1.2.3 The two project reports will be taken forward for integration and application (Stage 6 of the LCWIP guidance) by Selby District Council (SDC) & North Yorkshire County Council (NYCC) as appropriate.

1.3 DEFINING THE STUDY AREA

1.3.1 Selby District is considered to be a relatively small rural district, with a population of approximately 85,960 residents (mid 2015 estimates). The district lies to the very south of North Yorkshire, between the cities of York, Leeds, and Hull.

1.3.2 Approximately two-thirds of the population live in outlying rural areas and villages, with only a few larger urban towns and villages. The largest town is Selby, with a population of 22,490[1] (2016 mid-year estimate for the wards of Selby East, Selby West and Brayton), although the closely linked villages of Barlby / Osgodby and Thorpe Willoughby increase the resident population of the urban area further, representing almost a quarter of the district's population. The two Local Service Centres, Tadcaster and Sherburn-in-Elmet, are the next largest urban areas, although markedly smaller; Tadcaster has a population of 5,970, while Sherburn-in-Elmet has a population of 6,750 (based on Census 2016 mid-year data).

1.3.3 The Selby Local Plan designates 51% of the housing growth in the district over the period 2011-2027 to be located in Selby[2] (see Section 2.2). Conversely, only 7% of the growth is intended to occur in Tadcaster, and 11% in Sherburn-in-Elmet.

1.3.4 The focus of the LCWIP process is to create a cohesive network for walking and cycling that will encourage those who do not currently walk or cycle for everyday purposes to do so, generally aligning with travel for commuting and utility purposes over shorter distances. Links between urban areas are often less likely to promote the desired modal shift, with greater benefits obtained through the provision of a denser urban network, connecting residential areas with a range of employment opportunities, schools, shops and facilities within a desirable walking or cycling distance.

1.3.5 The Selby District LCWIP will therefore focus on three distinct areas:

[1] NYCC/ONS (2016mid-yearestimates)

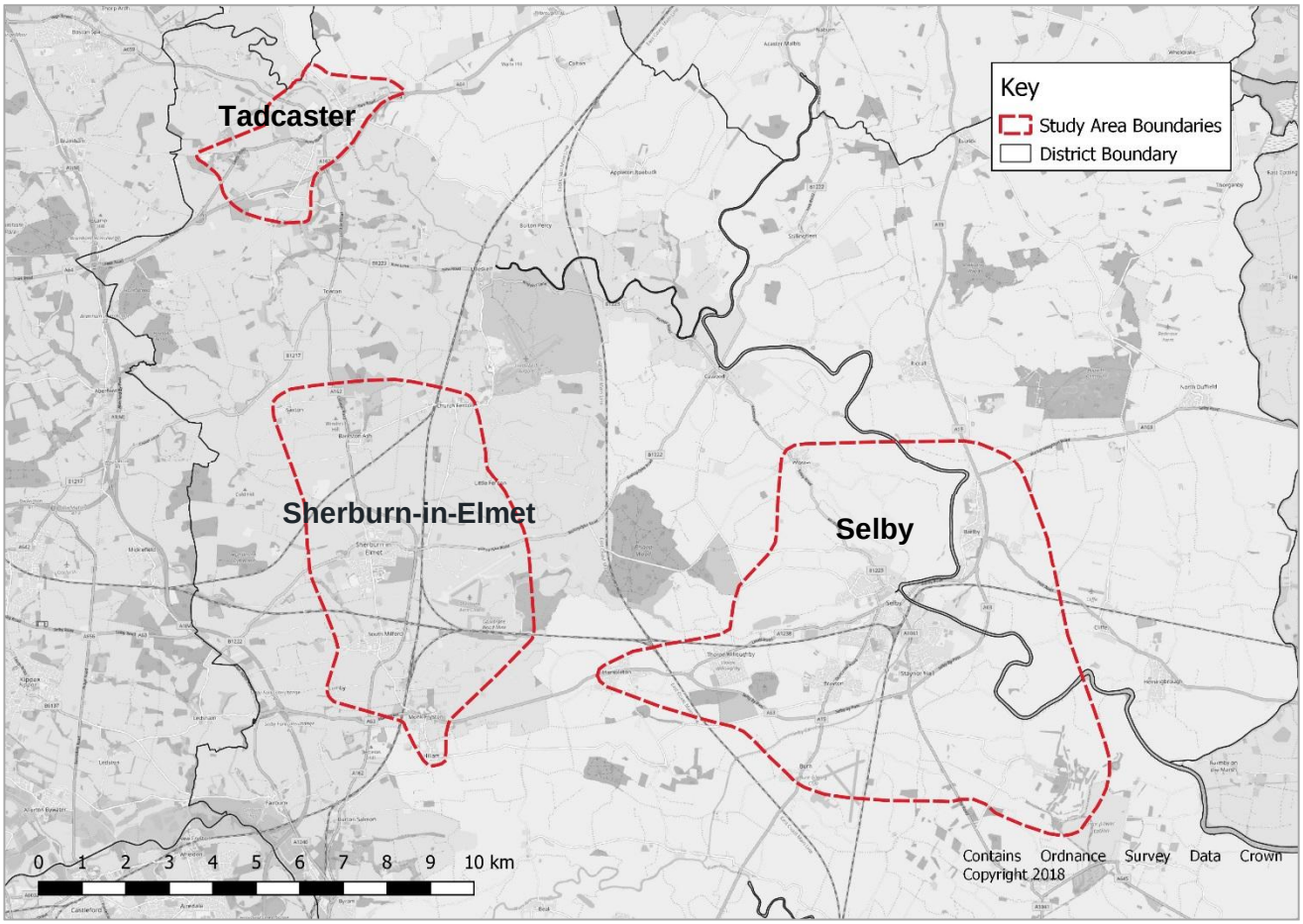
https://hub.datanorthyorkshire.org/dataset/d6df0022-8d40-409a-a3cc-ddbad9ee6744d/resource/bf17c052-d563-4a00-b4b4-6031d5520fd0/download/graduatedtowns2015.pdf

[2] Selby Local Plan (2011-2027)

- Selby with Thorpe Willoughby, Brayton, and Barlby / Osgodby;
- Tadcaster; and
- Sherburn-in-Elmet.

The LCWIP will also consider strategic links between these and to outlying areas where deemed appropriate.

Figure 1-1 - Study Area Boundary



1.4 REPORT STRUCTURE

1.4.1 This project report details Phase 1 of the Selby District LCWIP and is structured as follows:

- Section 2 – Evidence Base;
- Section 3 – Best Practice Review;
- Section 4 – Cycle Network Development;
- Section 5 – Walking Network Development;
- Section 6 – Stakeholder Engagement; and
- Section 7 – Network Priorities & Recommended Next Steps.

2

EVIDENCE BASE

2 EVIDENCE BASE

2.1 INTRODUCTION

2.1.1 This chapter places the LCWIP within the national, regional and local policy framework and establishes the existing geographic, demographic and active travel situation in the study area. Forecast trends in growth are also presented to understand the future situation, considering changing travel patterns and future development in the district.

2.1.2 The culmination of this work is an evidence base that supports and informs development of the Selby District LCWIP, helping to define network connections and emerging priorities.

2.1.3 A detailed desktop research exercise has been undertaken to help establish the baseline situation and understand future trends, considering available datasets, policies and strategies. However, in order to ensure that the LCWIP and the resulting network plans are founded on robust evidence, this research has been supplemented by a range of data collection and stakeholder consultation exercises, including:

- Site Visits: Undertaken on foot and cycle to understand travelling around the study area as vulnerable road users.
- Stakeholder Workshops: An internal stakeholder workshop took place with officers of North Yorkshire County Council and Selby District Council to gain their input on the challenges and opportunities related to cycling and walking in the study area. A summary of this workshop is provided in Section 6 of this report.
- Meetings / Conference Calls: As well as the stakeholder workshop, the project team have liaised with key internal stakeholders from Selby District Council to gain a detailed insight to the work the Borough has done related to walking and cycle network planning. Meeting with SDC staff (as the planning authority) and NYCC area officers also provided an opportunity to understand proposed and committed developments in the study area that may impact and influence the final network, in particular large residential and employment sites.

2.1.4 The structure of this section is as follows:

- Policy Context;
- Local Geography;
- Demographics;
- Existing Transport Networks: Cycling and Walking
- Existing Transport Networks: Road, Rail and Public Transport
- Existing Origins and Destinations; and
- Future Situation (Developments, Infrastructure and Forecasting Growth).

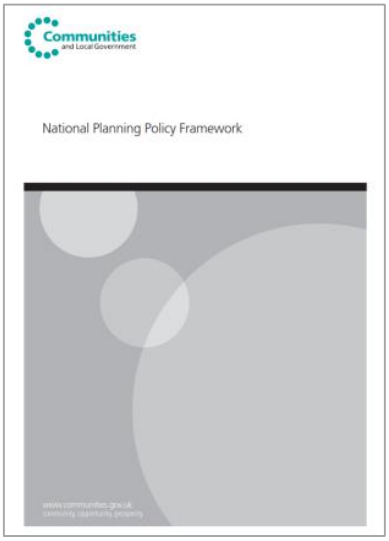
2.2 POLICY CONTEXT

2.2.1 DfT guidance highlights the need to understand the local, regional and national policy framework with which the LCWIP document will align and be integrated. Several key policy documents have been identified and summarised below, highlighting synergies with the aims of LCWIPs and how LCWIPs can support the delivery of these policy objectives:

- National Planning Policy Framework (NPPF), 2012 and updated 2018;
- White Paper: Creating Growth, Cutting Carbon, 2011;
- DfT Cycling and Walking Investment Strategy, 2017;
- DfT Local Cycling and Walking Infrastructure Plan Guidance, 2017;
- NYCC Local Transport Plan 4 (LTP4), 2016-2045;
- York, North Yorkshire & East Riding LEP Strategic Economic Plan, 2014; and
- Selby Core Strategy Local Plan (2013).

NATIONAL POLICY

Revised National Planning Policy Framework



2.2.2 The Government's revised National Planning Policy Framework (NPPF) was published on 24th July 2018, and is the first revision to the 2012 publication of the NPPF; the NPPF replaced all previous planning policy in England on its release, condensing over 1,000 pages of guidance into a single comprehensive document.

2.2.3 The revised NPPF implements approximately 85 reforms announced previously through the Housing White Paper, the 'planning for the right homes in the right places' consultation and the draft revised National Planning Policy Framework consultation.

2.2.4 Chapter 2: 'Achieving Sustainable Development' continues to place significant emphasis on sustainable development, summarising this as:

"meeting the needs of the present without compromising the ability of future generations to meet their own needs"

2.2.5 The document continues to state that the planning system has three interdependent and mutually supportive overarching objectives, which include:

- an economic objective – to help build a strong, responsive and competitive economy;
- a social objective – to support strong, vibrant and healthy communities; and
- an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment.

2.2.6 Chapter 8: 'Promoting Healthy and Safe Communities' states that planning policies should aim to achieve healthy, inclusive, and safe places, which carries implications for those routes included within the LCWIP; with due regard given to these requirements.

2.2.7 This chapter also sets out policies in relation to open space and recreation. Paragraph 98 states that:

"Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users"

2.2.8 The Public Right of Way (PRoW) network has the potential to complement and support the LCWIP network, providing facilities for multiple trip purposes. Improvements to surfacing and designation (such as conversion to a cycletrack) may be necessary.

2.2.9 Chapter 9: 'Promoting Sustainable Transport' specifically addresses the promotion of sustainable transport through the planning system. The document recognises that transport issues should be considered from the earliest stages of plan-making and development proposals, including identifying and pursuing opportunities to promote walking and cycling, and ensuring that patterns of movement, streets, parking, and other transport considerations are integral to the design of schemes, and contribute to making high quality places.

2.2.10 Paragraph 104 in Chapter 9 references that planning policies should both:

- identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development; and
- provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans).

2.2.11 The emerging LCWIP can support the development of such policies, identifying a contiguous walking and cycling network within a given area and prioritising interventions to ensure the network comes forward in a cohesive manner.

2.2.12 The revised NPPF also addresses the role that new development can play in ensuring that walking and cycling are the natural choice for shorter journeys. Paragraph 108 states that allocated or proposed development sites should ensure that:

- appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location; and
- safe and suitable access to the site can be achieved for all users.

2.2.13 Paragraph 110 in Chapter 9 states that development proposals should:

- give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and
- create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards.

2.2.14 Chapter 12: 'Achieving Well-designed Places' sets out how high-quality design is essential to creating genuinely sustainable development. Paragraph 125 states that:

"*Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area's defining characteristics"*

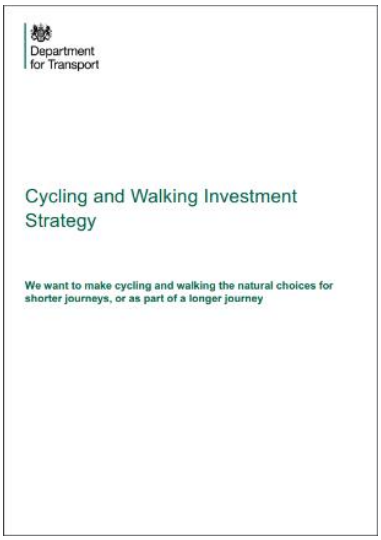
2.2.15 While the Selby District LCWIP Phase 1 is not focussed on the design of schemes, the principles of how future interventions should be designed is a key consideration when determining the proposed network.

White Paper: Creating Growth, Cutting Carbon (2011)

2.2.16 The White Paper was published in January 2011 alongside the launch of the Local Sustainable Transport Fund (LSTF), and presents an ambitious vision for sustainable and active travel, stating a vision for "a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities."

2.2.17 The White Paper recognises the potential for a significant proportion of shorter local journeys made by car to instead be undertaken via sustainable and active modes: primarily walking, cycling, and public bus. To facilitate this behaviour change, the White Paper sets out the role of Localism and how Local Authorities are best placed to instigate change.

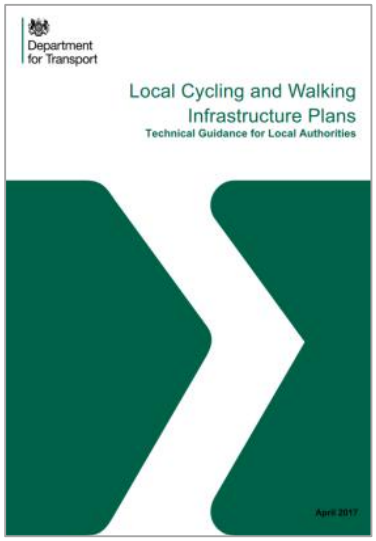
DfT Cycling and Walking Investment Strategy



2.2.18 The Government published its first Cycling and Walking Investment Strategy (CWIS) in 2017, setting out an ambition to make walking and cycling the natural choices for shorter journeys or as part of a longer journey. The CWIS states that the benefits to doing this would be substantial, potentially leading to cheaper travel and better health, increased productivity for business and increased footfall in shops, and lower congestion, better air quality, and vibrant, attractive places and communities for society as a whole.

2.2.19 The CWIS outlines a £300 million investment in cycle training and infrastructure during the current Parliament and sets out ambitious targets for the period up to 2025, including a doubling of cycling trip stages each year (from 0.8 billion in 2013 to 1.6 billion by 2025), whilst also reversing the current year-over-year decline in walking trip stages. The CWIS also identifies a need to decrease the number of cycle user fatalities and serious injuries each year.

Local Cycling and Walking Infrastructure Plans Guidance (2017)



2.2.20 The Local Cycling and Walking Infrastructure Plans (LCWIP) Guidance was published alongside the DfT CWIS. Local Cycling and Walking Infrastructure Plans are set out in the CWIS as a new strategic approach to identifying cycling and walking improvements required at a local level.

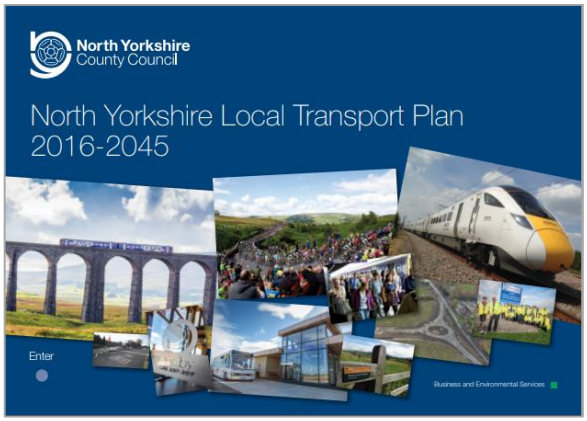
2.2.21 The LCWIP guidance sets out a recommended methodology to planning networks of walking and cycling routes that connect places that people need to get to, whether for work, education, shopping, or for other reasons. The guidance brings together national and international guidance on best practice, and explains how a range of tools, such as the Propensity to Cycle Tool (PCT), can be used to help develop robust plans and schemes.

2.2.22 The development of the Selby District LCWIP has been prepared in line with the approach set out in this guidance.

SUB-REGIONAL POLICY

North Yorkshire Local Transport Plan (LTP4) (2016-2045)

2.2.23 NYCC's LTP4 is a four-tier document which covers the local transport strategy, objectives, transport improvements by modes/theme, and policies adopted by the County Council.



2.2.24 In 2012, legislation governing Local Transport Plans changed and as a result councils / local government no longer need to be fixed to a five-year timespan. NYCC subsequently produced a 30-year plan in accordance with this change, extending until around 2045.

2.2.25 NYCC, through consultation with stakeholders, has identified 5 key objectives regarding transport in the county:

- Economic Growth – Contributing to economic growth by delivering reliable and efficient transport networks;
- Road Safety – Improving road and transport safety;
- Access to Services – Improving equality of opportunity by facilitating access to services;
- Environment and Climate Change – Managing the adverse impact of transport on the environment; and
- Healthier Travel – Promoting healthier travel opportunities.

2.2.26 The LTP4 states that the County Council will promote sustainable travel and encourage travel to work by walking, cycling, bus, rail and car sharing. It also highlights that, where possible, NYCC will provide additional infrastructure to support sustainable travel, with improvements provided through transport grants such as the LSTF fund. The County Council will also seek to ensure that provision of suitable facilities to encourage healthier travel choices is made within any new development.

2.2.27 The LTP identifies Selby as a North Yorkshire 'growth town', playing a significant role in the economy of the county. NYCC state that the council will work to investigate and develop proposals to reduce urban congestion in these towns, including identifying schemes to enable future growth. Walking and cycling schemes can play a large part in reducing congestion, encouraging modal shift.

2.2.28 The LTP also discusses Air Quality Management, stating that air quality is considered good across the majority of the county. Despite this, one of the few air quality management areas is in the centre of Selby, at New Street. The LTP states that, as the local highway authority, NYCC will work with the district councils to try and mitigate the impact of transport on air quality, including by encouraging the use of more environmentally friendly modes of transport, such as walking or cycling.

2.2.29 The LTP identifies that over 40% of the population of North Yorkshire live in communities with a population of over 10,000 people. As a result, many trips in these areas are relatively short, making walking and cycling a viable form of transport for these trips.

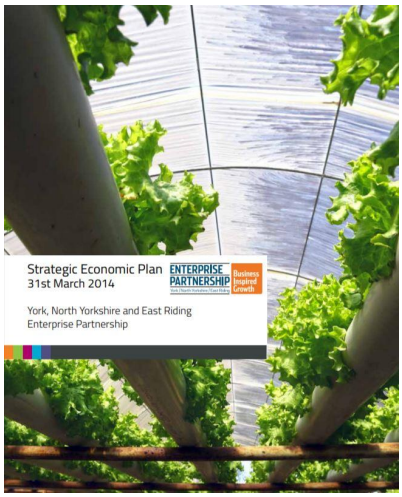
2.2.30 While the LTP recognises a recent growth in cycling for leisure purposes, the document sets out the Council's commitment to providing for and promoting walking and cycling as a mode of travel for 'utility' purposes.

2.2.31 However, the LTP also acknowledges the lack of funding available for significant additional infrastructure. This commitment to walking and cycling therefore primarily revolves around the continued maintenance of the highway network, which is considered “eminently suitable for most cycle users”. Despite this, the LTP states that NYCC will continue to seek additional funding where available, and proactively plan and develop cycling infrastructure where there is a realistic chance of funding being available to deliver the improvements.

York, North Yorkshire & East Riding LEP Strategic Economic Plan

2.2.32 The York, North Yorkshire & East Riding Local Enterprise Partnership (LEP) Strategic Economic Plan (SEP) was released in 2014, and is a single strategy for the area that serves three identified purposes:

- It sets out the key economic issues, opportunities and priorities for the area;
- It is the EU Strategic and Investment Funds Strategy required for EU funding purposes (supported by the EU Strategic Investment Fund Implementation Plan); and
- It is the Strategic Economic Plan that Central Government require for Local Growth Deal funding purposes (supported by a more detailed Local Growth Deal Implementation Plan).



2.2.33 Priority 5: A Well-connected Economy addresses transport in the area, stating an overarching goal to provide businesses with strong connections to their customers and markets. To achieve this aim, the SEP presents three objectives:

- Fast, reliable journeys between key centres;
- Transport that underpins both growth and low-carbon goals; and
- Access to UK and international markets.

2.2.34 The SEP identifies Selby as part of the strategically important Leeds – Hull rail corridor, and sets out a desire to improve this route as part of a package of east – west connections, including station improvements to maximise anticipated high-speed rail investment associated with HS2. The SEP also highlights Drax and Eggborough as key strategic locations in the north.

2.2.35 While the SEP does not specifically discuss Selby in the context of cycling and walking, understanding the strategic aims of the LEP helps prioritise potential schemes and network links, connecting key employers and promoting rail / cycle integration.

LOCAL POLICY

2.2.36 Local policy typically relates to targeted transport enhancements designed to address social, health and environmental issues, as well as to benefit the economy by enhancing access to jobs, training and services. In many cases there is a focus on improving integration between land-use planning and transport, to support more sustainable patterns of travel and reinforce the case for targeted enhancements to the transport network.

Selby Local Plan Core Strategy (2011-2027)

2.2.37 The Selby Local Plan Core Strategy was adopted on 22nd October 2013, and provides a spatial vision for development within the district until 2027. As well as presenting several objectives to achieve this spatial vision, the document presents a development strategy, providing the context for designating areas where specific policies will apply, identifying strategic development sites and presenting a district wide framework for allocation of further sites, and presenting policies which set out the context for more detailed polies and guidance in other Local Plan documents.

2.2.38 It should be noted that the Core Strategy only allocates a single site for development - Olympia Park, Selby - whilst the forthcoming PLAN Selby Development Plan Document (DPD) is anticipated to allocate the various housing and employment sites required to meet the growth aspirations for the district (discussed further in section 2.8).

2.2.39 The Core Strategy presents aspirational growth targets for the District over the Plan period (to 2027) for both housing and employment land, setting out a need for the following:

- 7,200 dwellings (450 dwellings per annum); and
- 37-52 ha of employment land.

2.2.40 The holistic nature of transportation means that many of the polices presented in the Core Strategy could implicitly impact on the development and implementation of the Selby LCWIP (and vice versa); however, two policies have specific links to the emerging LCWIP proposals.

SP12 – Access to Services, Community facilities and Infrastructure

2.2.41 Policy SP12 identifies that a wide range of physical infrastructure is required across the District, both currently and in order to accommodate the District's growth aspirations in a sustainable manner. The Core Strategy recognises that the principal of 'sustainable development' requires new development to be adequately served by the services, facilities, and infrastructure required to function, without having a detrimental impact on existing communities. The Core Strategy states that sustainable development should:

"provide good access to facilities and services, and…ensure the provision and enhancement of green infrastructure"

2.2.42 Green Infrastructure is described as a network of linked open spaces and green corridors, and the concept encompasses strategic planning of such a network, identifying that green infrastructure has historically been introduced in a piecemeal manner. Natural England (previously the Countryside Agency) commissioned 'The Countryside in and Around Towns: The Green Infrastructure of Yorkshire and Humberside' report (published 2006) which made recommendations and provided support for green infrastructure in the region, as well as identifying associated benefits.

2.2.43 The Core Strategy notes that the evidence underpinning the former Regional Spatial Strategy placed considerable emphasis on green infrastructure, and that improving the green infrastructure of

the District forms an integral part of the Council's priorities for creating a healthy and green environment.

2.2.44 Furthermore, the Core Strategy states that:

"Priority will be given to maximising opportunities for green infrastructure in connection with proposals for strategic growth in Selby and other major development proposals, as well as having high regard to the priorities of the Leeds City Region Green Infrastructure Strategy, and supporting the priorities of the Delivery Plan"

SP15 – Sustainable development and Climate Change

2.2.45 Policy SP15 sits within Chapter 7 of the Core Strategy, 'Improving the Quality of Life'. This chapter presents policies in order to promote sustainable development and minimise the impacts of climate change through a range of complementary measures.

2.2.46 The Core Strategy identifies that the key local issues in the District with regards to sustainable development are:

- Energy generation;
- Protection of groundwater;
- Flood risk management; and
- Minimising travel growth.

2.2.47 The Core Strategy identifies that one of the overriding objectives is to minimise the need to travel, recognising the high existing levels of outward commuting experienced in the District. The document identifies that the level terrain of the District is considered conducive towards cycle use, and that the focus of future development on the main towns provides considerable scope for promoting cycling journeys for various purposes, including through the construction of dedicated cycle lanes and provision of cycle facilities as part of new developments.

SUMMARY

2.2.48 The policy review presented above demonstrates how the Selby District LCWIP will contribute to a range of policy objectives at local, regional and national scale.

2.2.49 The principles of the LCWIP are to contribute towards the Government's national-level objectives of supporting sustainable development by contributing to economic growth in a way sustainable manner. The Government recently released the Cycling and Walking Investment Strategy (CWIS) and Local Cycling and Walking Infrastructure Plan (LCWIP) guidance. The LCWIP represents part of North Yorkshire's contribution to support the CWIS objectives.

2.2.50 The LCWIP will support and contribute toward all five objectives of the North Yorkshire Local Transport Plan due to the holistic way that walking and cycling, as a mode of transport, can deliver benefits to individuals and wider society.

2.2.51 At a local level, the LCWIP will complement Selby DC's vision, contributing towards the District's aims and objectives for sustainable development, provide opportunities for walking and cycling, potentially enhance community infrastructure and spaces, while also promoting environmental, health, and social equality agendas. If adopted as a Supplementary Planning Document (SPD), as per the DfT's LCWIP guidance, the Selby District LCWIP will provide a policy basis for development to contribute towards a cohesive walking and cycling network, and helps ensure Selby DC's significant growth aspirations come forward in a sustainable manner.

2.3 LOCAL GEOGRAPHY

AREA PROFILES

Selby District

2.3.1 Selby District is identified as having an ageing population. It is estimated that by 2025 there will be 21% increase in people aged 65+ in the district, as well as a 0.6% decrease in the working age population. Such a change will undoubtably lead to increased health and social care needs with slightly fewer people available to work in health and caring related roles[3].

2.3.2 The district also has the second highest levels of health inequality in North Yorkshire, with life expectancy varying by 9 years between wards; circulatory disease and cancer are the main causes of death contributing towards this inequality. It is further identified that around a third of children in Selby North and Selby South wards grow up in poverty.

2.3.3 While the LCWIP Walking and Cycling Network Maps provide an aspirational network designed to cater for all users for all purposes, there is a clear opportunity to align the immediate LCWIP priorities to those areas most likely to immediately benefit; those areas suffering from poor health, and lacking easy access to employment, education, and facilities.

Selby

2.3.4 Selby itself is the principal town in the district, with a population of approximately 22,490 people[4] including the peripheral villages of Barlby / Osgodby, Brayton, and Thorpe Willoughby. It is considered to be the main retail centre for the entire district, and the main focus for housing, employment, leisure, education, health, local government, and cultural activities and facilities.

2.3.5 The town benefits from a bypass constructed in 2004, diverting through traffic and other journeys onto this major arterial route and towards the Strategic Road Network.

2.3.6 Selby traces its origins back to Roman times. The founding of Selby Abbey, a key tourist destination and a gateway to the town centre, was a pivotal point in its development, with the associated wealth and power promoting the town's economic and physical growth, becoming a regional centre and market town.

2.3.7 The historic Selby Abbey defines the historical layout of the town centre, dominating the high street; the marketplace is directly outside the entrance, while the adjacent Micklegate is considered to be the main manufacturing focus of the town.

---

[3] North Yorkshire Joint Strategic Needs Assessment 2018: Selby District Summary (NYCC, Nov 2018)

[4] NYCC/ONS (2016mid-yearestimates)

https://hub.datanorthyorkshire.org/dataset/d6df0022-8d40-409a-a3cc-ddbad9ee6744d/resource/bf17c052-d563-4a00-b4b4-6031d5520fd0/download/graduatedtowns2015.pdf

2.3.8 In more recent years, the town has been shaped by the growth and decline in the Port of Selby, developed to serve the wool industries of West Yorkshire and the cotton industry, as well as ship construction. The subsequent Selby / Leeds turnpike road, canal, and toll bridge over the River Ouse further improved communications and logistics via land, making Selby a significant destination for people and goods. However, the mid to late 20th century saw a decline in traditional industries, with the recent closure of the final shipyard.

2.3.9 The historic nature of the town contributes towards a constrained street layout that often pre-dates the motor vehicle, further compounded by listed buildings and conservation zones.

2.3.10 Despite the decline in traditional industries, the town is finding a new commercial and residential focus, with the opening of new shopping precincts within the town centre. There are a number of key employers in the town, and visitors are attracted by the Abbey, markets, leisure centre, and the traditional town park.

2.3.11 Additionally, recent high-quality environmental improvements in the town through the Renaissance Programmes - for example in the Market Place and along the historic waterfront - have attracted new economic investment, with Selby town currently supporting around 6,000 jobs.

2.3.12 The study area includes the outlying Local Service Centres of Barlby, Brayton, and Thorpe Willoughby. Considered to be sustainable villages, each are separated from Selby by a small strip of greenbelt, dividing the urban form. To the west, the study area includes the village of Hambleton, on the extent of the maximum desirable cycling distance (circa 5km), and Drax power station to the south east, which while just beyond this distance, is a major employer in the region.

Sherburn-in-Elmet

2.3.13 The village of Sherburn-in-Elmet (commonly referred to as Sherburn) is one of two Local Service Centres in the District of Selby, and is the second largest individual settlement, with a resident population of 6,750 in 2016[5].

2.3.14 In a similar manner to Selby, Sherburn also has historical origins, potentially settled in Roman times. Sherburn was once the seat of the ancient kingdom of Elmet, a Brittonic kingdom that existed between the 5th and 7th centuries, and was subsequently subsumed within Northumbria. The Grade 1 listed Church of All Saints displays some of this heritage, with the existing building dating back to circa 1120.

2.3.15 Whilst the overall population within the district was noted as growing by 6.6% between 2002 and 2009, growth in Sherburn was markedly slower, at 2.7%. The SDC Core Strategy highlights that the level of services and facilities in the village has not kept pace with the population growth, and priority will be given to improving existing services and expanding the range of local employment

[5] NYCC/ONS (2016mid-yearestimates)

https://hub.datanorthyorkshire.org/dataset/d6df0022-8d40-409a-a3cc-ddbad9ee6744d/resource/bf17c052-d563-4a00-b4b4-6031d5520fd0/download/graduatedtowns2015.pdf

opportunities. It is anticipated that such enhanced services will help sustain the wellbeing of surrounding settlements that rely on the village, in particular South Milford, and reduce the reliance on outward commuting to Leeds.

2.3.16 Sherburn is located close to the A1 (M) and has access to two railway stations, facilitating its current role as a predominantly commuter village. Despite this, the village has expanded significantly since the 1980s, and provides a range of employment opportunities (including manufacturing and logistics) to the east of the A162.

Tadcaster

2.3.17 Tadcaster is the second Local Service Centre in the District and is slightly smaller than Sherburn-in-Elmet, with a population of 5,970 in 2016[6]. It is noted that the population declined by 1.1% between 2002 and 2009 in contrast to the general growth across the District.

2.3.18 Tadcaster was the site for the Roman settlement of Calcaria, although the town of Tadcaster itself is not mentioned until the Anglo-Saxon Chronicle, where it appears as Tada, the place where King Harold assembled his forces prior to entering York and the Battle of Stamford in 1066. Tadcaster's origins as a market town date back to 1270, when Henry de Percy was granted a royal charter from King Henry III to hold 'a market and fair at his manor of Tadcaster', to be held each Tuesday.

2.3.19 Tadcaster also has a long history of brewing, largely because of the quality and accessibility of the local water supply. Records from as early as 1341 identify the presence of two brewhouses in the town. Today, the town is home to the Tower Brewery (Coors), John Smith's, and Samuel Smith's Old Brewery – Samuel Smith's is the oldest in Yorkshire and the only remaining independent in the town.

2.3.20 Whilst the town is identified as commuter village for Leeds, partly due to its proximity and good accessibility by road, the breweries remain a significant part of the town's heritage and key employers in the area.

2.3.21 Although the town is served by bus services between the cities of York and Leeds (as well as local destinations including Sherburn and Wetherby), there is no railway station in the town - Tadcaster used to sit on the Fenton to Harrogate railway line, but this closed in 1964.

[6] NYCC/ONS (2016mid-yearestimates)

https://hub.datanorthyorkshire.org/dataset/d6df0022-8d40-409a-a3cc-ddbad9ee6744d/resource/bf17c052-d563-4a00-b4b4-6031d5520fd0/download/graduatedtowns2015.pdf

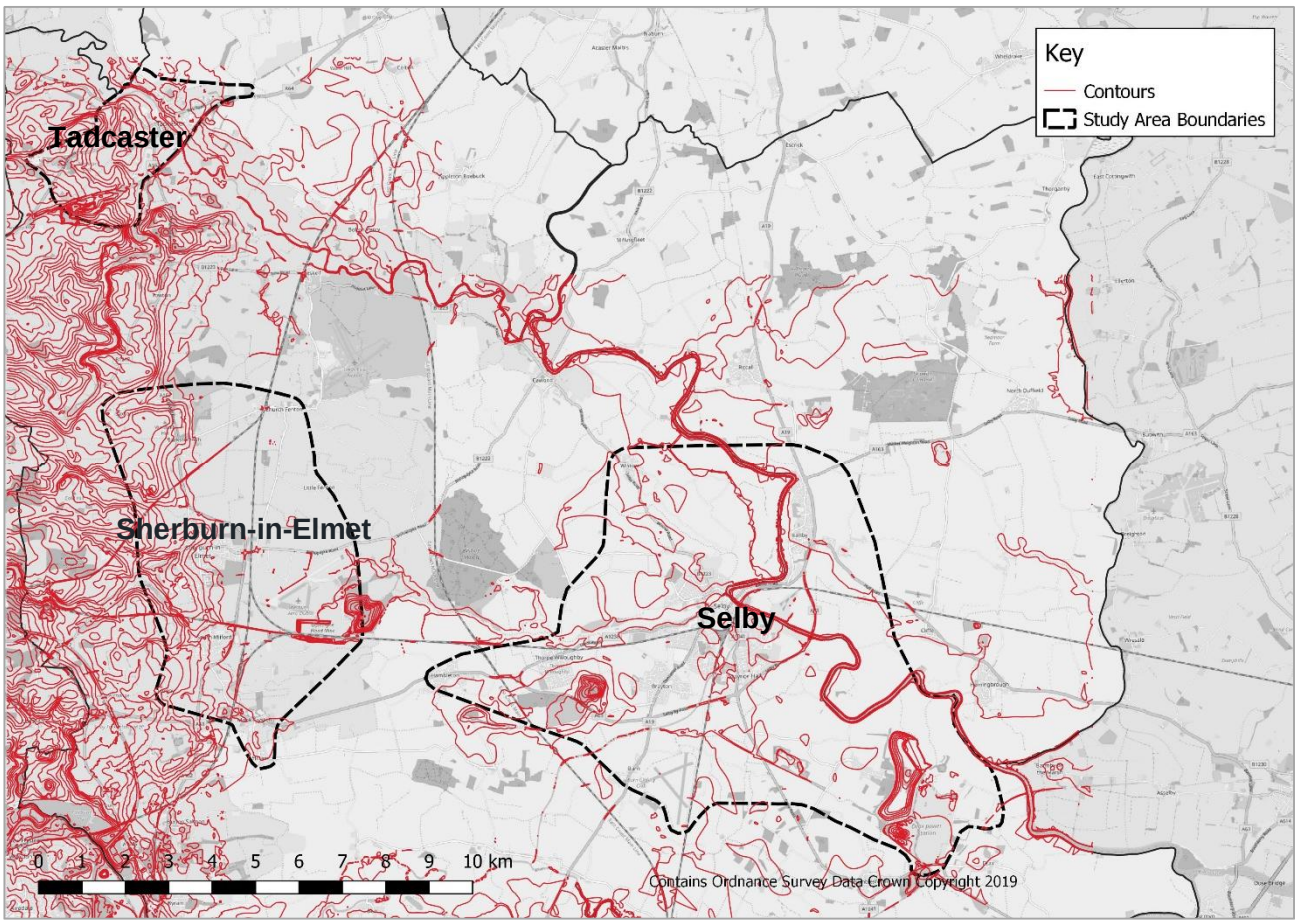
LCWIP Implications

- While significant transport infrastructure projects have enhanced the major road network around the District, the towns and villages in the LCWIP study areas are characterised by historic layouts, with some areas being many centuries old, which constrains and limits the type of infrastructure that can be implemented.
- It is recognised that the District has a very high level of outward commuting, with the associated distances limiting the propensity to cycle in some places. Despite this, the urban areas have recently attracted economic investments, and are anticipating further increases in employment opportunities and economic growth with the potential to provide more local jobs for local people.

TOPOGRAPHY

2.3.22 Figure 2-1 illustrates the topography within the LCWIP Study Area, displaying 5m contours. Topography will be more important when considering specific desire lines and potential routes; however, as evidenced by the data, Selby is a relatively flat district, characterised by open and sparsely wooded arable landscapes. The western extent of Sherburn, just beyond the urban area, becomes hillier, while Tadcaster is considerably hillier than much of the district, with conditions less conducive to cycle travel.

Figure 2-1 - LCWIP Study Area Topography

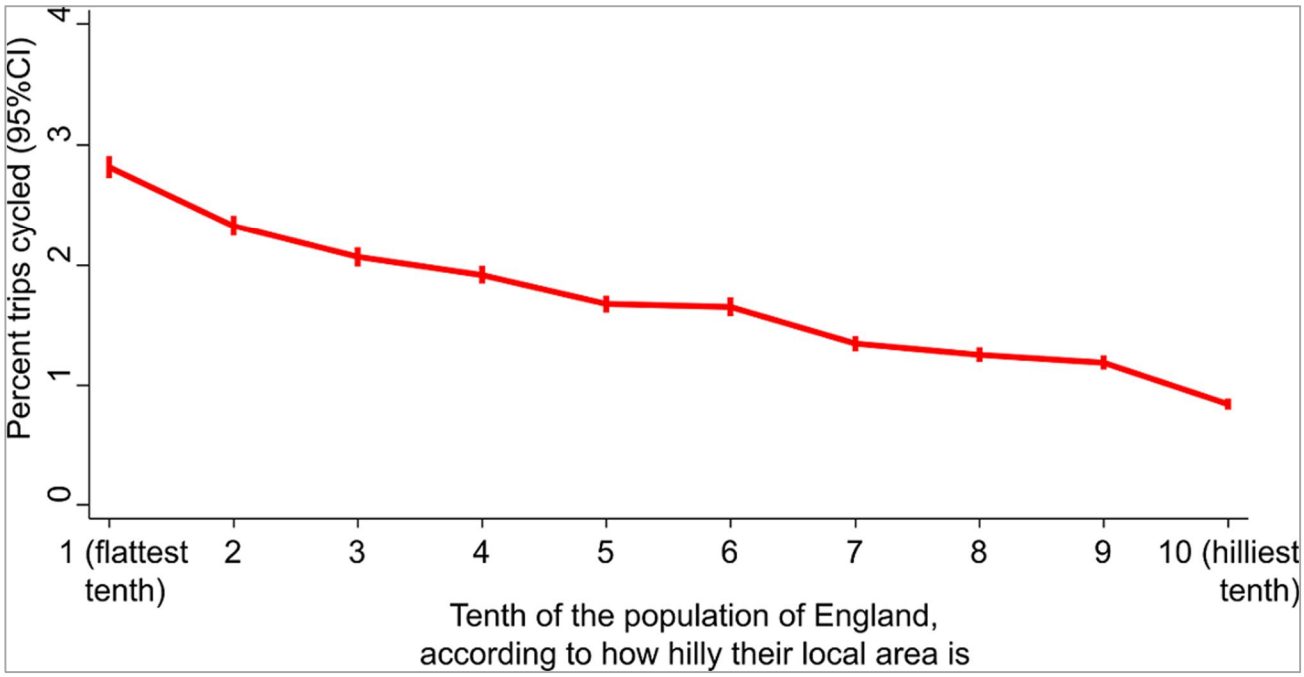


2.3.23 Hilliness is an important predictor of cycling levels in England, with the probability of cycling a trip falling steadily as the hilliness of the local area increases. Recent University of Leeds research showed that "hilliness was found to be, by far, the most significant determiner of the proportion that cycled to work in a district[7]."

[7] Estimation of the determinants of bicycle mode share for the journey to work using census data, 2007

2.3.24 Furthermore, as demonstrated in Figure 2-2, overall, people in the tenth of the population in the flattest areas are three times more likely to cycle a trip than the tenth of people in the hilliest areas (2.8% trips cycled vs. 0.8%[8]). This makes the topography within the study area an important, influencing factor on the cycle network development. Certain areas within the study area may be too hilly and deter potential cycle user from using those routes.

Figure 2-2 - Proportion of Trips Cycled in England (According to 'Hilliness' of Local Area)



Source: Centre for Diet and Activity Research

2.3.25 Gradient also plays a major role in the perceived 'comfort' or 'attractiveness' of pedestrian routes (footpaths and footways), and thus, the propensity to walk a route. As highlighted in DfT's 2005 'Inclusive Mobility' guidance[9], and replicated more recently in the 2014 Welsh Active Travel Guidance[10], steep gradients can have a particular impact on older people, those with physical difficulties and parents with pushchairs. The guidance recommends that as a general rule, a gradient of 5% (1 in 20) should be the desirable maximum in most situations and 8% (1 in 12.5) should be used as the absolute maximum unless justifiable. Research by Meeder et al (2017)[11]

[8] Centre for Diet and Activity Research, 2016

[9] Inclusive Mobility, Department for Transport, 2005

[10] Active Travel Design Guidance, Welsh Government, 2014

[11] 'The influence of slope on walking activity and the pedestrian modal share', Meeder M. *et al*., 2017

concluded that slope (and by inference 'hilliness') has a significant influence on walking attractiveness primarily due to the effort (or energy) required to scale the slope, suggesting that for every 1% increase in incline there is a 10% reduction in walking attractiveness.

2.3.26 Such evidence suggests that 'hilliness' in certain areas is likely to have a bearing on the propensity of people to walk or cycle to and from these areas, and must be taken into consideration when determining potential networks.

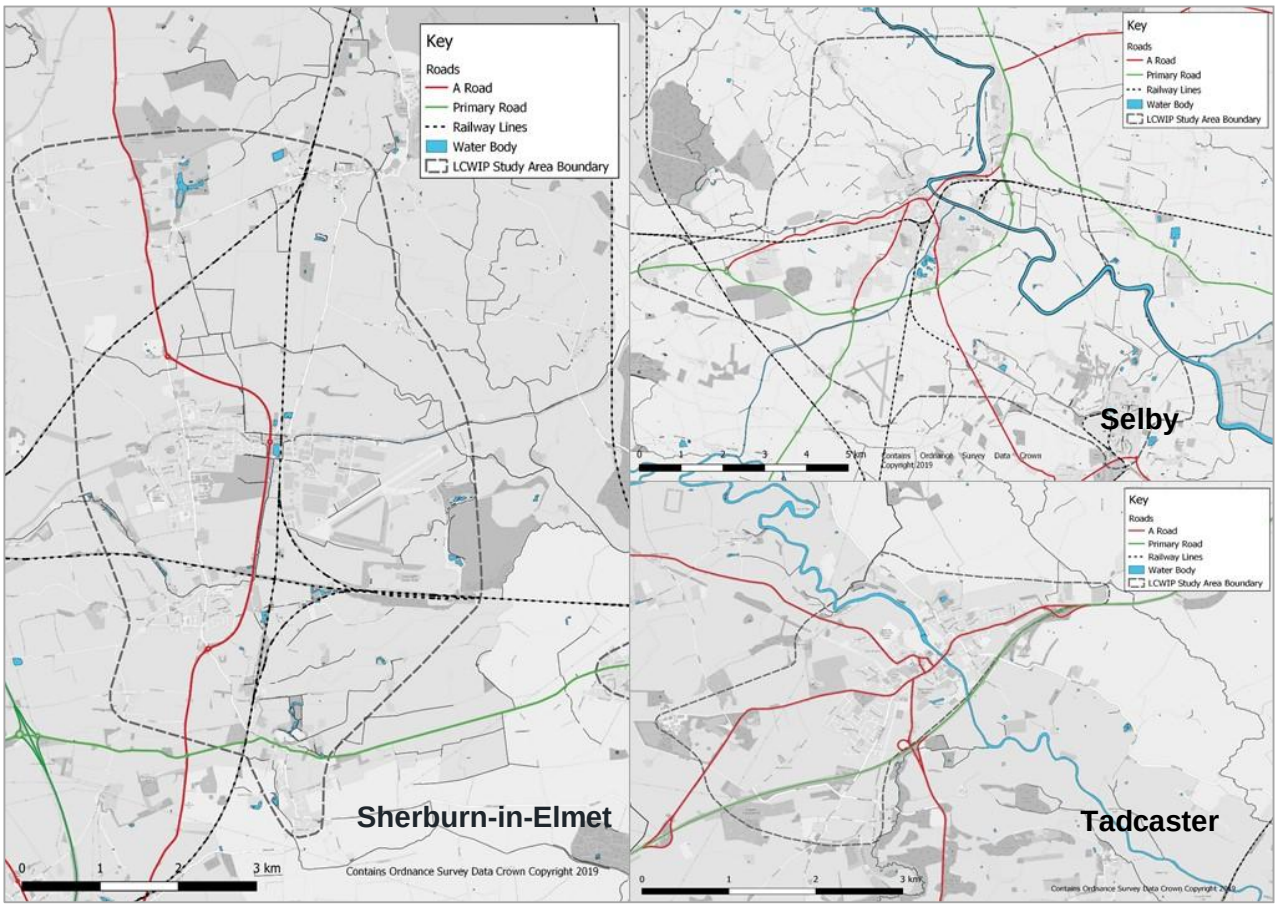
LCWIP Implications

- Consideration should be given to implementing infrastructure in areas of limited 'hilliness' or inclines, depending on other factors identified during this study.
- The hilliness in Tadcaster could provide a barrier to cycling, although the tight urban area promotes relatively short trips, reducing the impact of climbing sections.
- The Selby study area is very flat across almost the entire area, creating conditions much more conducive to cycling.

BARRIERS TO MOVEMENT

2.3.27 Although the topography of the area has been identified as generally conducive to walking and cycling, there are a number of physical barriers which can significantly impede active travel movements within each study area. Figure 2-3 displays various key features that can cause high levels of severance, creating barriers to movement across many desire lines and potentially requiring significant engineering interventions to mitigate this impact.

Figure 2-3 - Barriers to Movement



LCWIP Implications

- Each study area features significant human made barriers, with arterial roads running through key areas (such as the respective town / village centres). The A63 and A64 are also likely to have significant severing impacts on many desire lines, particularly in the Selby LCWIP study area.
- The River Wharfe in Tadcaster and River Ouse in Selby also have the potential to significantly sever a number of desire lines, bisecting the respective study areas.
- Whilst some crossing points do exist, additional crossing points may be a key requirement in order to create a cohesive active travel network, with associated financial implications.

ENVIRONMENTAL CONSIDERATIONS

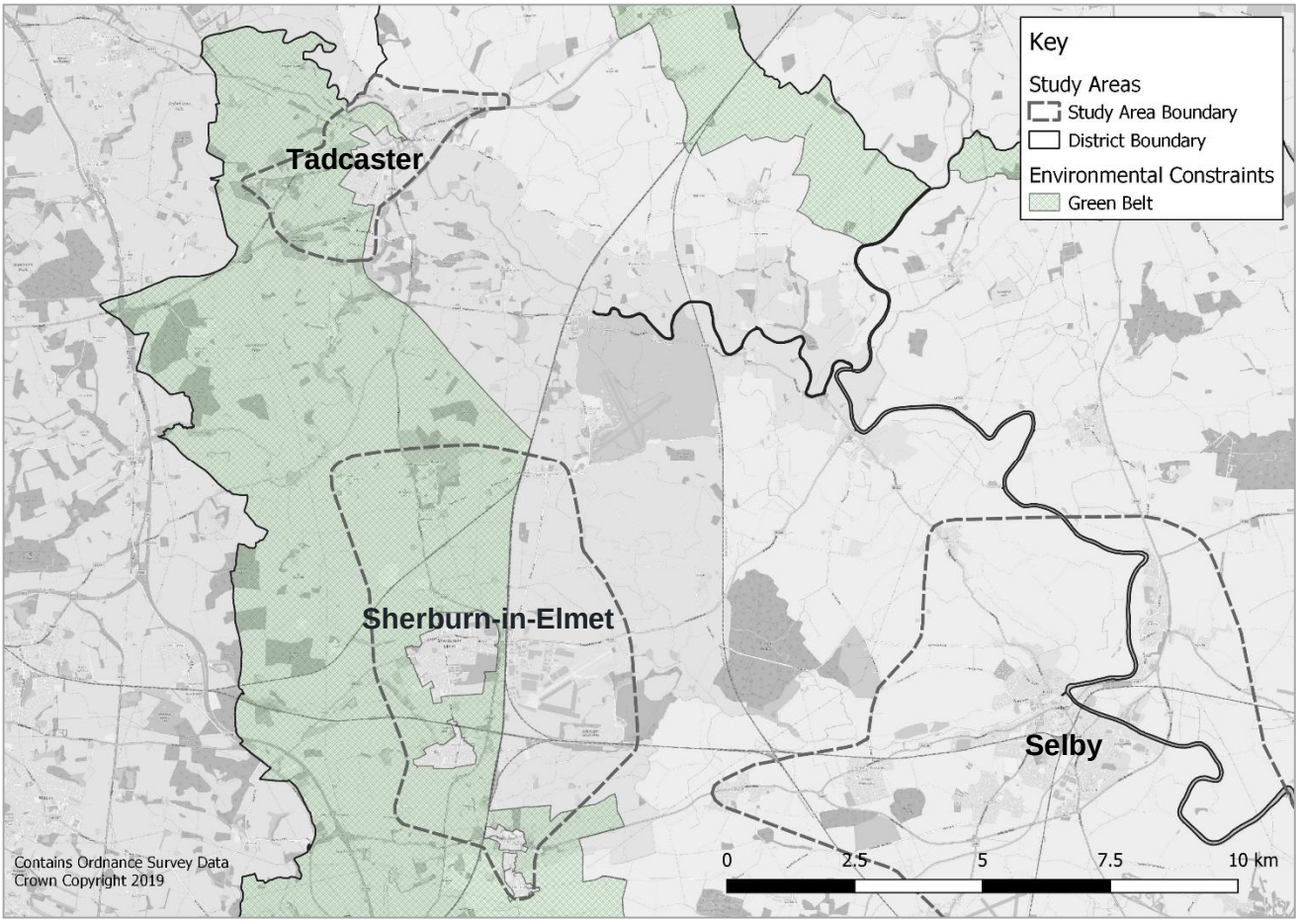
2.3.28 Environmental considerations have the potential to form a key part of the LCWIP process. Protected areas of land can restrict the type of infrastructure that can be implemented, or even prevent a route from being adopted at all. Selby District is characterised by a significant number of natural features and wildlife habitats, including over 100 designated local Sites of Importance for Nature Conservation (SINCS). The District also includes several waterbodies, with large areas threatened by flooding, which is exacerbated by the low-lying terrain.

2.3.29 This section of the report presents a brief overview of environmental constraints that could impact on the overall LCWIP proposals.

Greenbelt Land

2.3.30 Within the UK, the greenbelt is an area of open land around an urban area where building is restricted. The greenbelt should be taken into account when looking to increase cycling in an area as it may restrict the design of any infrastructure proposed. Hard infrastructure such as segregated routes may not be realistic proposals in a greenbelt area; however, softer alternative measures such as signed routes may be implemented. Figure 2-4 shows the extents of the greenbelt within the District and how they impact on the study areas.

Figure 2-4 - Greenbelt Extents



2.3.31 While there is no greenbelt within the Selby LCWIP study area, around half of the Sherburn LCWIP study area is within the extensive greenbelt in the west of the District, with much of the western half of the Tadcaster LCWIP study area also within the greenbelt.

Air Quality Management Areas

2.3.32 Since 1997 all local authorities have been carrying out reviews and assessments of air quality. If this monitoring highlights areas where the national air quality objectives are unlikely to be met, under the Environment Act 1995 they are required to designate an Air Quality Management Area (AQMA).

2.3.33 Selby District has one AQMA, declared on 29/02/2016 due to excessive levels of Nitrogen Dioxide (NO_2), with traffic congestion in this area a key cause. The designated area incorporates 1 to 21 New Street odd number inclusive,16 to 30 New Street even numbers inclusive, 50 Ousegate, 1 to 5 The Crescent inclusive, Park House, The Crescent and Thornden Buildings, New Street, as illustrated in Figure 2-5.

Figure 2-5 - Selby AQMA: Broad Extents

2.3.34 SDC have produced an Air Quality Action Plan (AQAP), adopted in May 2018, which sets out a variety of measures designed to tackle the underlying issues. These measures fall under 8 broad topics:

- Alternatives to private vehicle use;
- Freight and delivery management;
- Policy guidance and development control;
- Promoting low emission transport;
- Promoting travel alternatives;
- Public information;
- Transport planning and infrastructure; and
- Traffic management.

2.3.35 The AQAP sets out several priorities to be undertaken, both immediately and over a longer term. The Selby LCWIP aligns directly with the provision of alternatives to private vehicle use across the Selby District, as well as a longer-term priority to reduce congestion and the number of vehicle trips though the New Street AQMA.

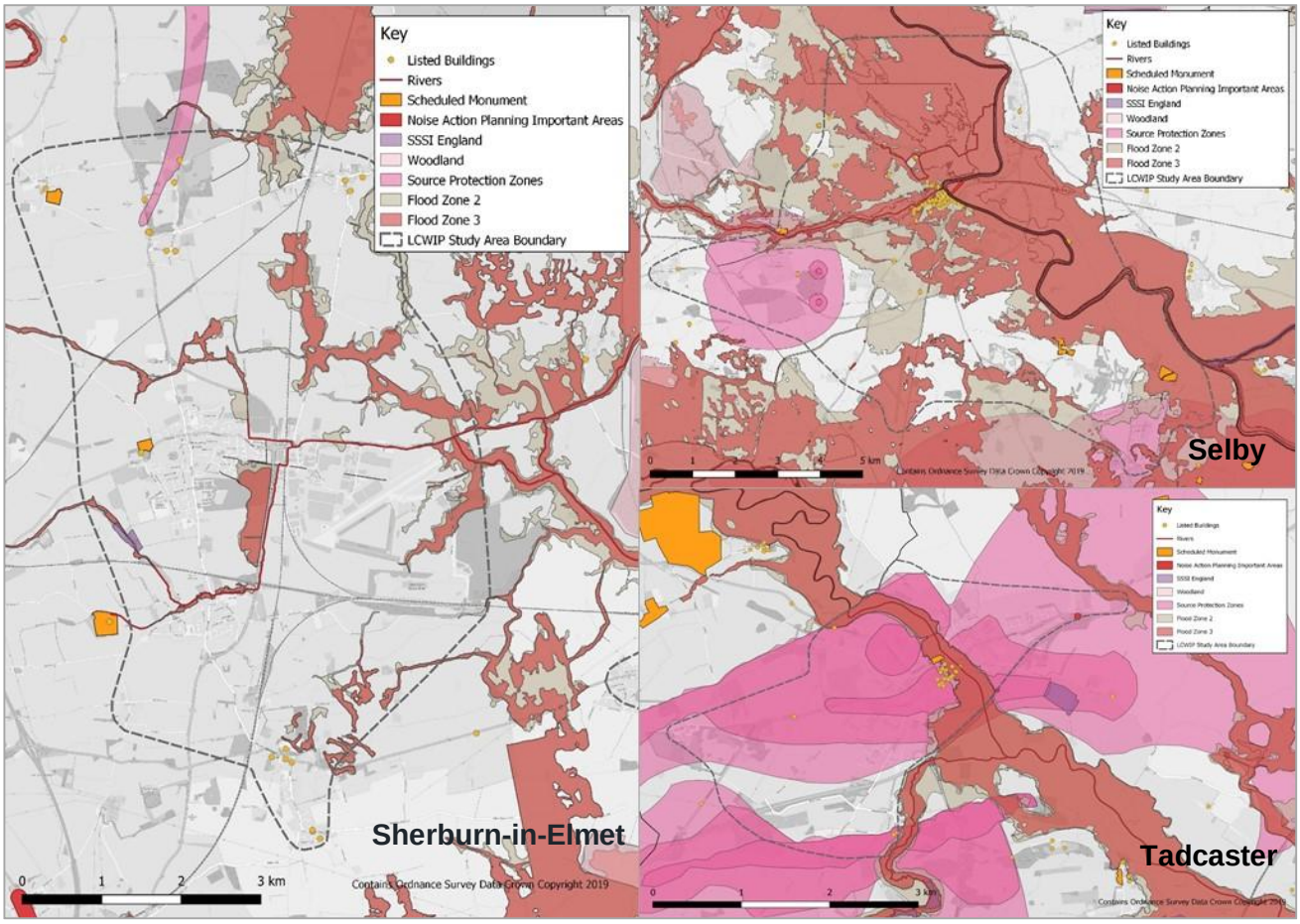
2.3.36 While the LCWIP is fundamentally designed to identify and set out priorities for walking and cycling infrastructure, there is a recognition that behaviour change measures can help promote the use of such infrastructure. The AQAP sets out a number of potential behaviour change initiatives, as well as identifying synergies with the North Yorkshire Joint Health and Wellbeing Strategy 2015.

2.3.37 NYCC's LTP4 also recognises the issues caused by poor air quality, and states that the county will support the district councils in seeking air quality grant funding through a variety of sources.

Environmental Constraints and Designations

2.3.38 Figure 2-6 illustrates the various environmental constraints that may need to be considered as part of the emerging Selby District LCWIP. Many of the potential constraints are associated with flooding, particularly in the low-lying areas of Tadcaster and Selby. Both areas have recently been adversely affected by flooding, with key links damaged and communities severed. New infrastructure in these areas will need to consider resilience to flooding, and how it could potentially contribute towards mitigation of flood risk. There are also a number of Sites of Special Scientific Interest (SSSIs) and scheduled monuments across the various study areas that will need to be considered.

Figure 2-6 - Environmental Constraints



LCWIP Implications

- The Selby District LCWIP will need to pay particularly attention to the extents of the greenbelt around Tadcaster and Sherburn when considering any off-road routes.
- The LCWIP offers a significant opportunity to help mitigate the declared AQMA at Ousegate and contribute toward the delivery of the AQAP. Conversely, the AQAP measures can promote the LCWIP as part of the identified measures.
- Any proposed routes that enter flood risk zones should consider their resilience to flood damage. Furthermore, such infrastructure could be designed or placed in such a way as to mitigate severance issues during flooding events.
- Routes that could potentially impact on a scheduled monument (such as any alterations) will need to consider Scheduled Monument Consent.
- Any routes that could impact on a SSSI will need to consult with Natural England and any other relevant stakeholders.

2.4 DEMOGRAPHICS

INDICES OF MULTIPLE DEPRIVATION

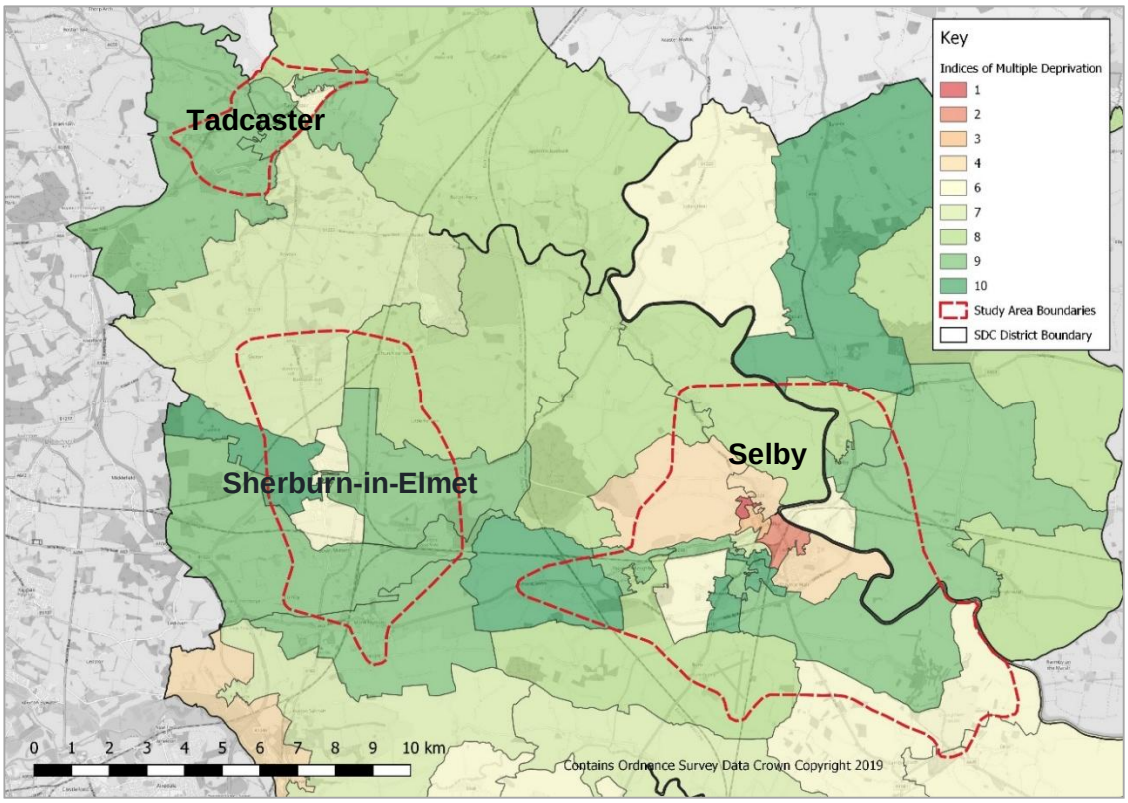
2.4.1 A key set of demographic indicators when promoting walking and cycling are those related to deprivation. This section of the report compares the 50 Lower-level Super Output Areas (LSOAs) within the District to the 32,482 LSOAs nationwide, paying particular regard to those within the three LCWIP Study Areas.

2.4.2 The English Indices of Multiple Deprivation (IMD) are usually released on a three-yearly basis by the Department for Communities and Local Government. However, there were five years between the most recent release in 2015 and the previous release in 2010. Their purpose is to assess the concentration and degree of deprivation and poverty within all local authorities in England. The index ranks, at a highly localised scale, the degree to which the different locations could be in relative deprivation.

2.4.3 The following figures classify the various indices presented as deciles based on data across the whole of England. Number 1 is considered the most deprived, while 32,482 is the least deprived; therefore 1 is presented as within the most deprived 10%, whereas 10 is in the least deprived 10% nationwide.

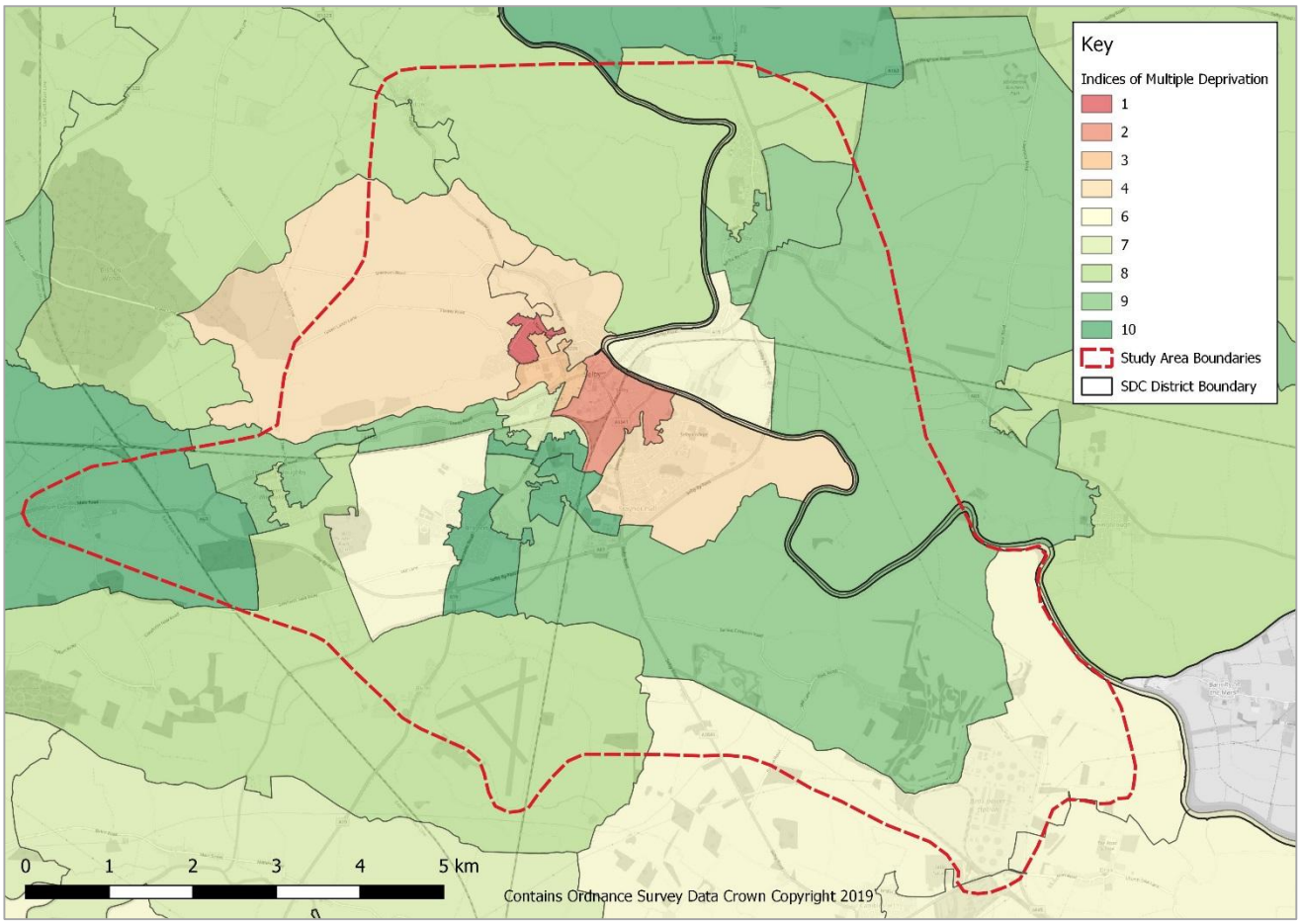
2.4.4 Indices of Multiple Deprivation (IMD) is a composite of many types of deprivation, including income, employment, education skills and training, health and disability, crime, barriers to housing and services, and living environment. Figure 2-7 illustrates the rankings of the LSOAs within Selby District.

Figure 2-7 - Indices of Multiple Deprivation (IMD): Selby District



2.4.5 Of the 50 LSOAs within the District, there is only one LSOA which ranks within the top ten percent of the most deprived areas within the UK, in the very centre of the town of Selby. There are only 7 LSOAs in the lowest 50% most deprived LSOAs in the country, indicating that most of the District experiences relatively low levels of deprivation. Six of these seven areas are located within the Selby urban area and are included within the Selby LCWIP study area, as shown in Figure 2-8.

Figure 2-8 - Indices of Multiple Deprivation (IMD): Selby



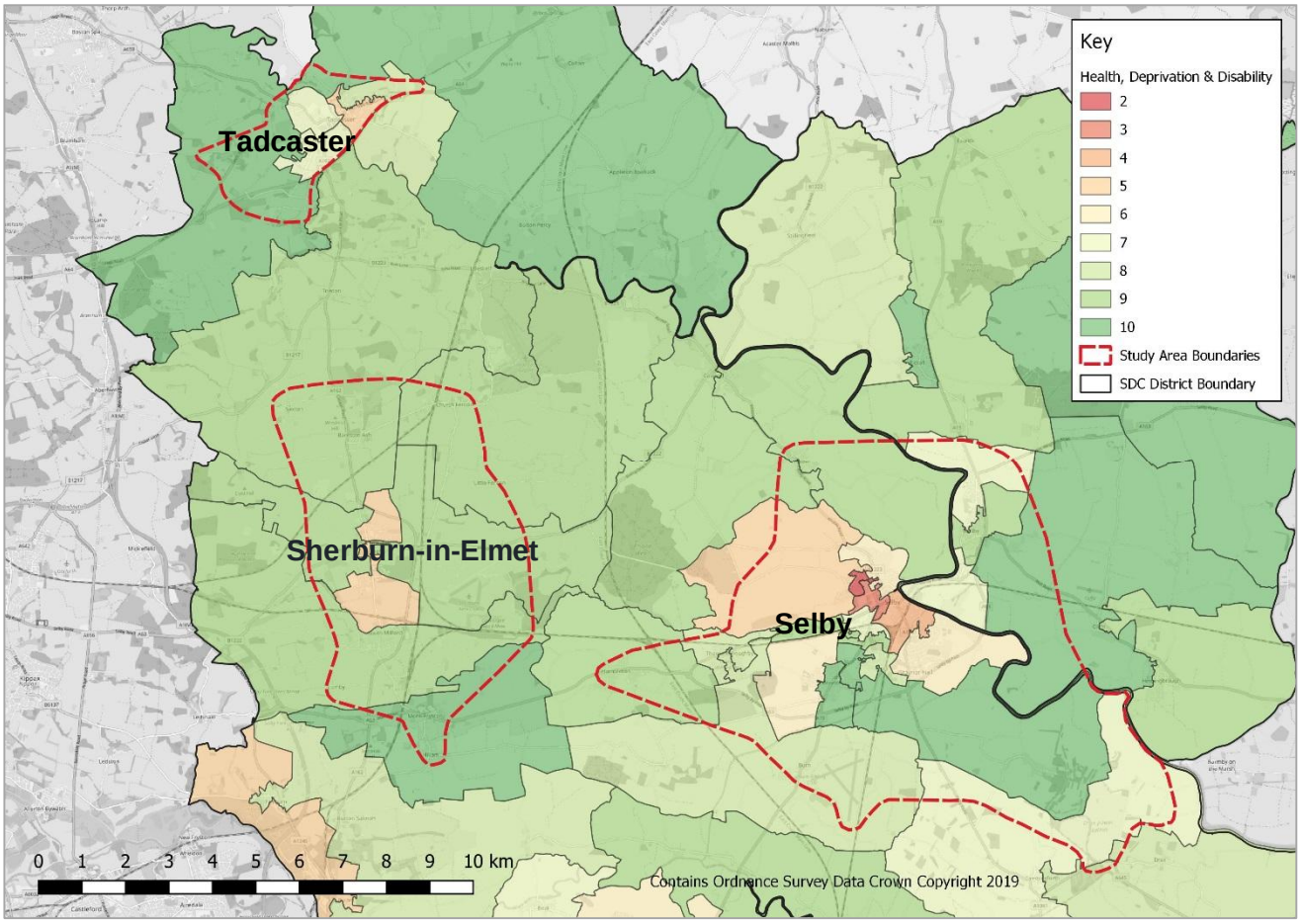
2.4.6 The IMD is designed to pull together different facets of deprivation; however, when carrying out small area analysis, it is often worth looking closely at the domains, and even subdomains, in order to understand the various aspects of 'deprivation'.

Health Deprivation and Disability

2.4.7 An important indicator when promoting active transport modes is that related to the level of health deprivation and disability in the area. Health Deprivation and Disability, with regards to the IMD, analyses those living in poor physical and mental health. Figure 2-9 shows that isolating this IMD factor from the other indicators allows us to see that the levels of Health Deprivation correlate very closely with the overall IMD, with the urban areas being characterised by a lower value. It is noted that none of the LSOAs within the District are within the bottom most deprived decile, while only 8 are within the lowest most deprived 50%.

2.4.8 In a similar manner to the overall IMD rankings, the most deprived areas are found within the urban areas of the town of Selby itself.

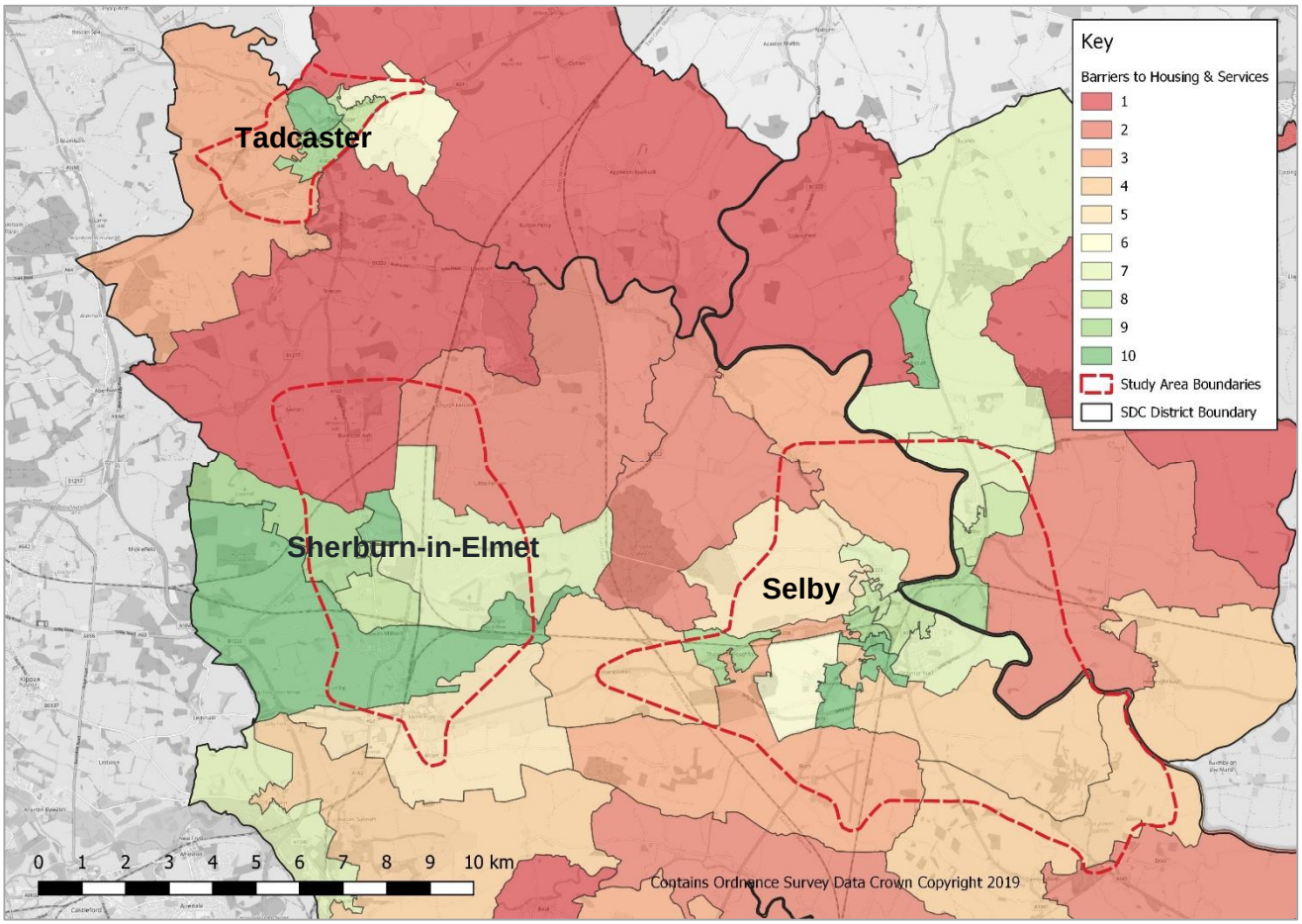
Figure 2-9 - Health Deprivation: Selby District



Barriers to Housing and Services

2.4.9 Barriers to housing and services looks at the affordability and availability of housing, and closeness of such housing to key services. The indicators fall in to two sub-domains: 'geographical barriers' and 'wider barriers'. Geographical barriers relate to the physical proximity of local services measured by road distance to a post office, primary school, supermarket and GP surgery. Wider barriers include issues relating to the access to housing including household overcrowding, homelessness and housing affordability.

Figure 2-10 - Barriers to Housing and Services: Selby District



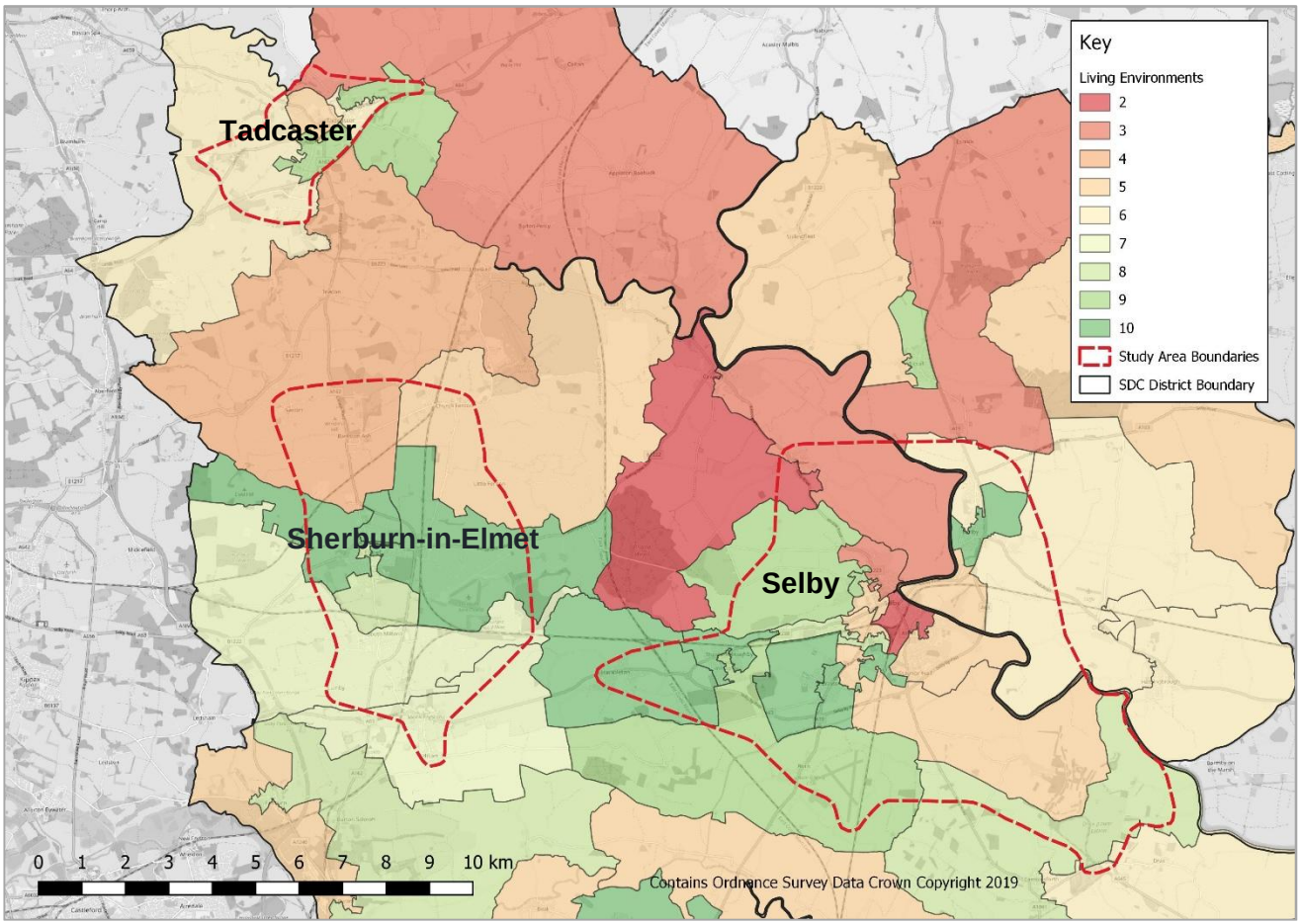
2.4.10 The indicators used in generating this Domain invariably favour urban areas, which are usually characterised by improved access to a wider range of services. Figure 2-10 clearly shows the lower levels of deprivation in relation to this Domain in the urban areas of Selby, Sherburn, and Tadcaster in comparison to the rural areas.

2.4.11 Almost half (24) of the LSOAs fall into the lower 50% most deprived, including many of the outlying areas of the LCWIP Study Areas.

Living Environments

2.4.12 Living environments deprivation analyses the standards of people's indoor and outdoor living environment. The specific measures which contribute to this index are the quality of housing, the local air quality and number/severity of road traffic collisions in the area. The indicators fall into two sub-domains: the 'indoors' and 'outdoors' living environment. The 'indoors' sub-domain measures the quality of housing based on whether a house has central heating and if it fails to meet the decent homes standard. The 'outdoors' sub-domain contains measures of air quality and road traffic incidents involving injury to pedestrians and cycle users.

Figure 2-11 - Living Environments



2.4.13 Figure 2-11 indicates significant disparity in the rankings across the District, and notably between LCWIP study areas. While the eastern side of the Selby LCWIP study area includes some of the least deprived areas, the LSOAs to the west are much more deprived—the centre of Selby lies in the second lowest decile. In contrast, the urban area of the Sherburn LCWIP Study Area includes two LSOAs in the least deprived decile.

2.4.14 Although the area to the south and to the east of the Tadcaster LCWIP Study Area is in the 9th least deprived decile, much of the area lies in the 5th and 6th decile, indicating a lower level of living environment. It is also noted that there is less disparity in the Tadcaster LCWIP study area in relation to this subdomain.

LCWIP Implications

- While the overall IMD rankings indicate that Selby District has relatively low levels of deprivation, the centre of Selby itself has relatively high levels of deprivation, particularly in regard to living environments and health.
- The LCWIP presents an opportunity to introduce physical measures that could contribute towards overcoming these issues, likely in conjunction with a wider package of interventions.
- Some of the outlying rural villages within the LCWIP study areas are characterised by a greater level of barrier to housing and services - the LCWIP proposals could enhance access to local services for residents in these areas, increasing access to services along the desire line by active travel modes.
- IMD and Domains of Deprivation mapping will be used to influence the prioritisation of routes in the LCWIP.

2.5 EXISTING TRANSPORT NETWORKS: CYCLING AND WALKING

2.5.1 This section of the report provides additional context about the existing walking and cycling facilities in the LCWIP study areas, allowing identification of areas and features with high-quality infrastructure and those areas with a deficit.

2.5.2 Note that the section focusses more strongly on cycling and cycle users, as walking for any purpose is considerably more prevalent than cycling nationally. The needs of pedestrians have long been catered for through the provision of footways; while sometimes inadequate or substandard, the presence of a footway nevertheless facilitates some movement on foot. The needs of cycle users have been poorly understood until recently, and the lack of cycle-specific infrastructure has been identified as one of the key factors in supressing demand.

DEFINING CYCLE USERS

2.5.3 From the outset, it is important to recognise that the term 'cycle users' encompasses a wide range of individuals who use their bikes for a variety of different reasons. These users have varying needs and expectations, not only regarding the infrastructure and facilities required, but also in terms of 'soft' measures such as information, publicity, safety and security.

2.5.4 Table 2-1 displays the range of cycle users that are expected to benefit from the measures proposed in the Selby District LCWIP; identification of user types helps to inform the development of the strategy in consideration of all user types, and recognises that users can change type during the course of their lives.

2.5.5 It is also important to note that non-users are specifically included in this list, as this group represents an important target audience in terms of the potential for a modal shift toward cycling. Furthermore, non-users are considered to require particular attention in terms of overcoming many of the traditional barriers to taking up cycling.

Table 2-1 - Types of Cyclist

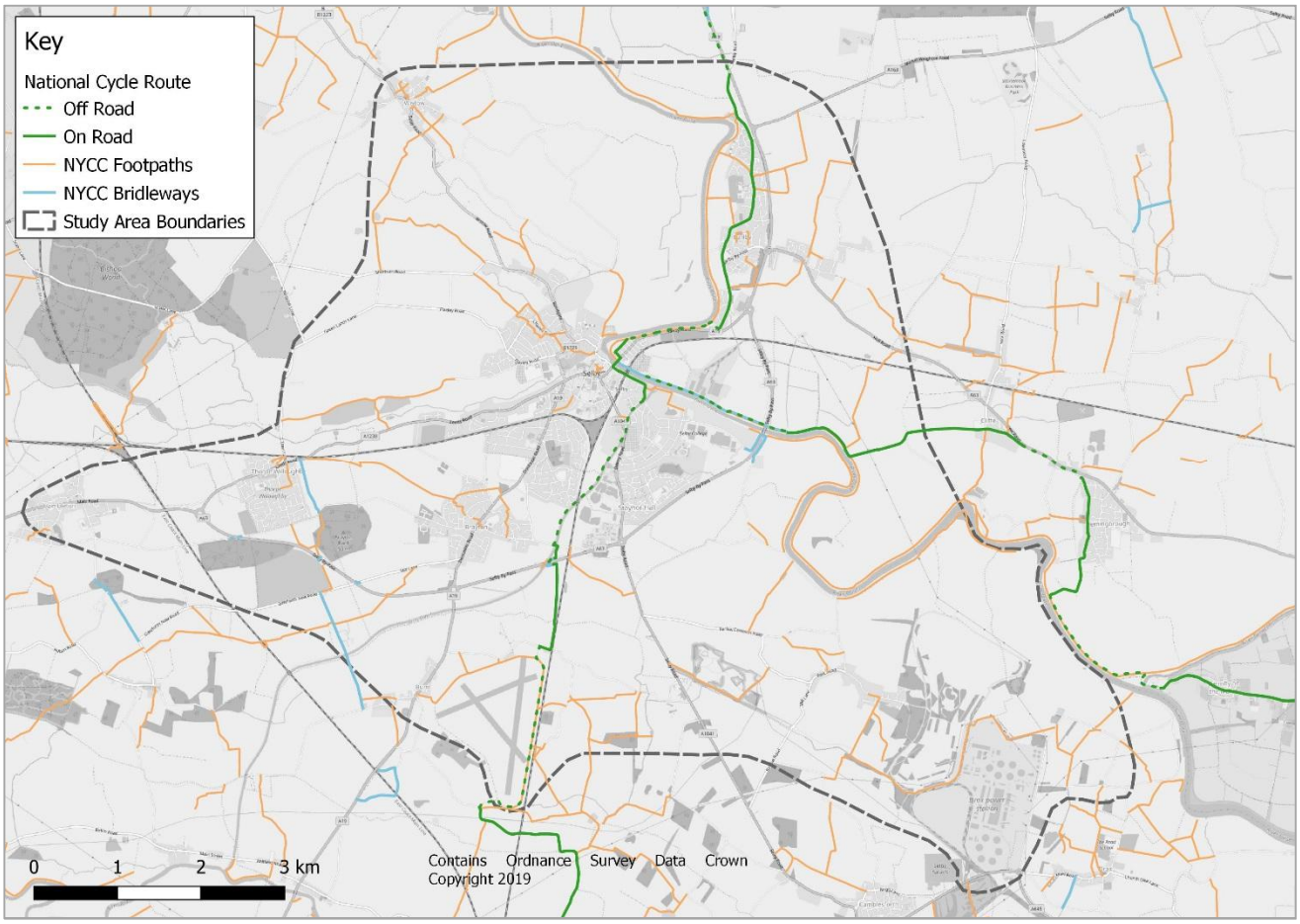
Type	Description
Non-User	Existing walkers / drivers / public transport users including the young, elderly, infirm and disabled – those who do not cycle at present.
Utility	Education / healthcare / shopping trips – using bikes as means to an end.
Commuter	Fixed locations workers / hub workers / multi-modal workers – using bikes as an alternative to walking, the car or public transport for all or part of a trip – using bikes to travel to work.
Leisure	Active individuals / active couples / active families / active groups – using bikes for leisure pursuits – using bikes to travel to fun.
Sporty	Off-road enthusiasts / off-road informal / off-road groups & clubs / off-road commercial ventures / road enthusiasts / road groups & clubs – using bikes for sporting and/or health reasons, generally enthusiasts, participate in 'challenges' and 'sportives' – using bikes for sport / health.
Competitive	Individuals / formal clubs – using bikes as part of a training regime for formal competition on and off-road ('pinning a number on') – using bikes for competition.

EXISTING CYCLING AND WALKING NETWORKS

2.5.6 Figure 2-12 shows the existing cycling and walking network in the study area (excluding highway infrastructure). Note that this figure only shows Public Rights of Way (PROW) and designated Sustrans routes. SDC / NYCC do not hold any detailed GIS data relating to cycling infrastructure provision, although there is some limited existing infrastructure across the District, mainly consisting of shared use footways.

2.5.7 While Selby features many footpaths with the potential to contribute towards enhanced pedestrian connectivity as part of the LCWIP Walking Network Map, there are very few bridleways or cycletracks. Nevertheless, the town does include a very significant cycle route: The Trans Pennine Trail.

Figure 2-12 - Cycle Network & PROW within the LCWIP Study Area: Selby

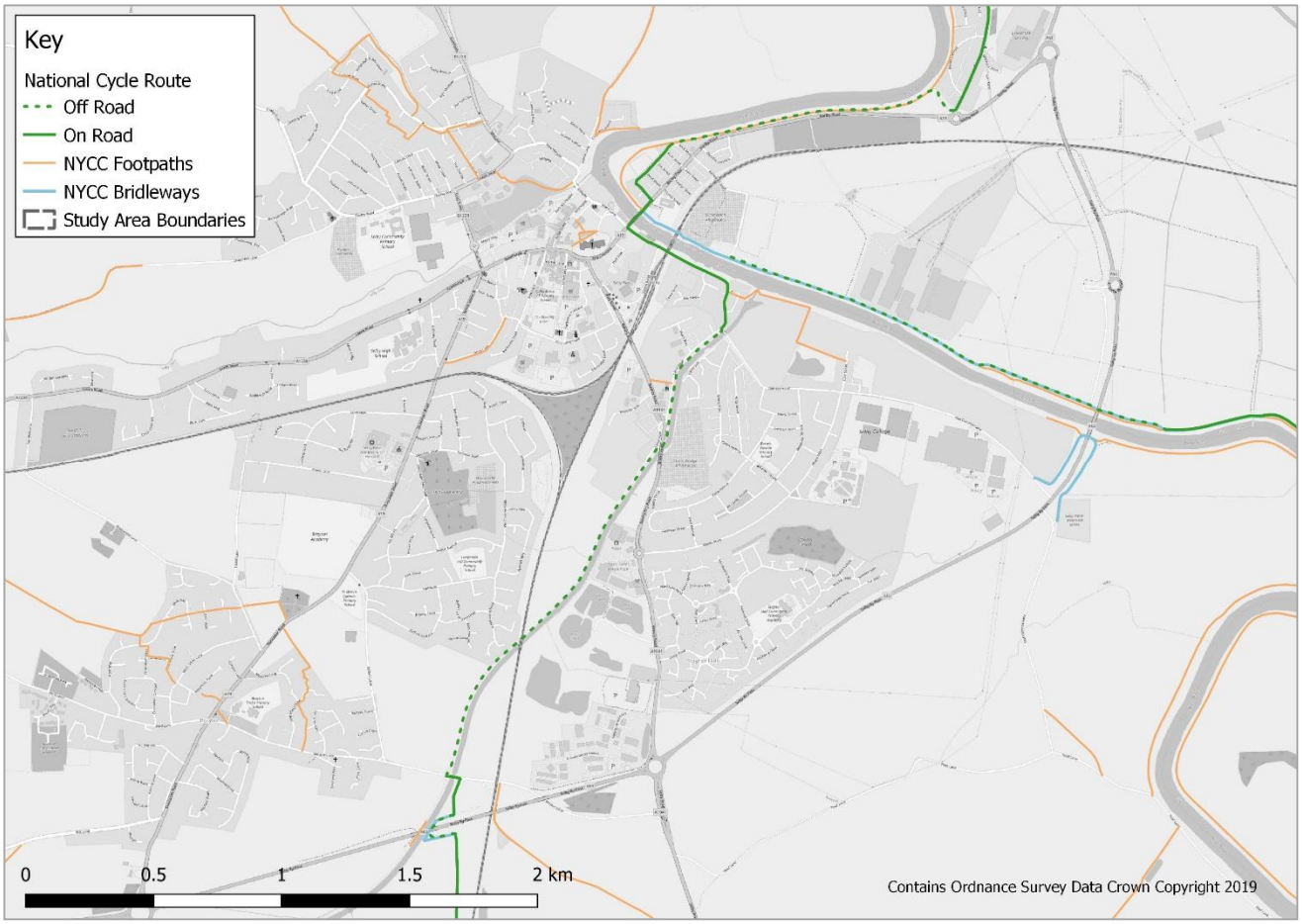


2.5.8 The Trans Pennine Trail is a long-distance route running from the east to west coast across northern England, entirely on surfaced paths and only incorporating gentle gradients, taking in many disused railway lines and canal towpaths. The Trail extends through Selby District, passing through the centre of Selby town.

2.5.9 The Trail is included within the National Cycle Network (NCN) as Route 62, forming the west and central sections of the Trail. Through Selby, Route 62 follows the Selby Canal towpath, including a circa 2.5km off-road section between the River Ouse and Brayton Bridge, illustrated in Figure 2-13.

2.5.10 The Trail also includes several spurs, including NCN Route 65, connecting Hornsea to Middlesbrough. More locally, Route 65 provides a direct connection to York in the north.

Figure 2-13 - Cycle Network & PROW within the LCWIP Study Area: Selby Canal



2.5.11 Although Sherburn and Tadcaster both feature strong cycle communities in regard to leisure purposes, with a network of bridleways in rural areas to support this activity, neither have any significant existing cycling network within the LCWIP study areas, as shown in Figure 2-14 and Figure 2-15.

2.5.12 It is noted that there are two NCN routes to the east of the Tadcaster study area:

- NCN Route 66: a 132 mile route from Manchester to Spurn Head, providing local connections to the villages of Bolton Percy, Appleton Roebuck, and Acaster Malbis; and
- NCN Route 665: an 11 mile route linking the east of Leeds to York via Wetherby and Tadcaster. The route is mostly traffic free, including a verge path along the A64 between Tadcaster and Copmanthorpe.

2.5.13 Both routes connect to NCN Route 65 to the east, which extends in a north-south alignment from Selby to York.

Figure 2-14 - Cycle Network & PROW within the LCWIP Study Area: Sherburn

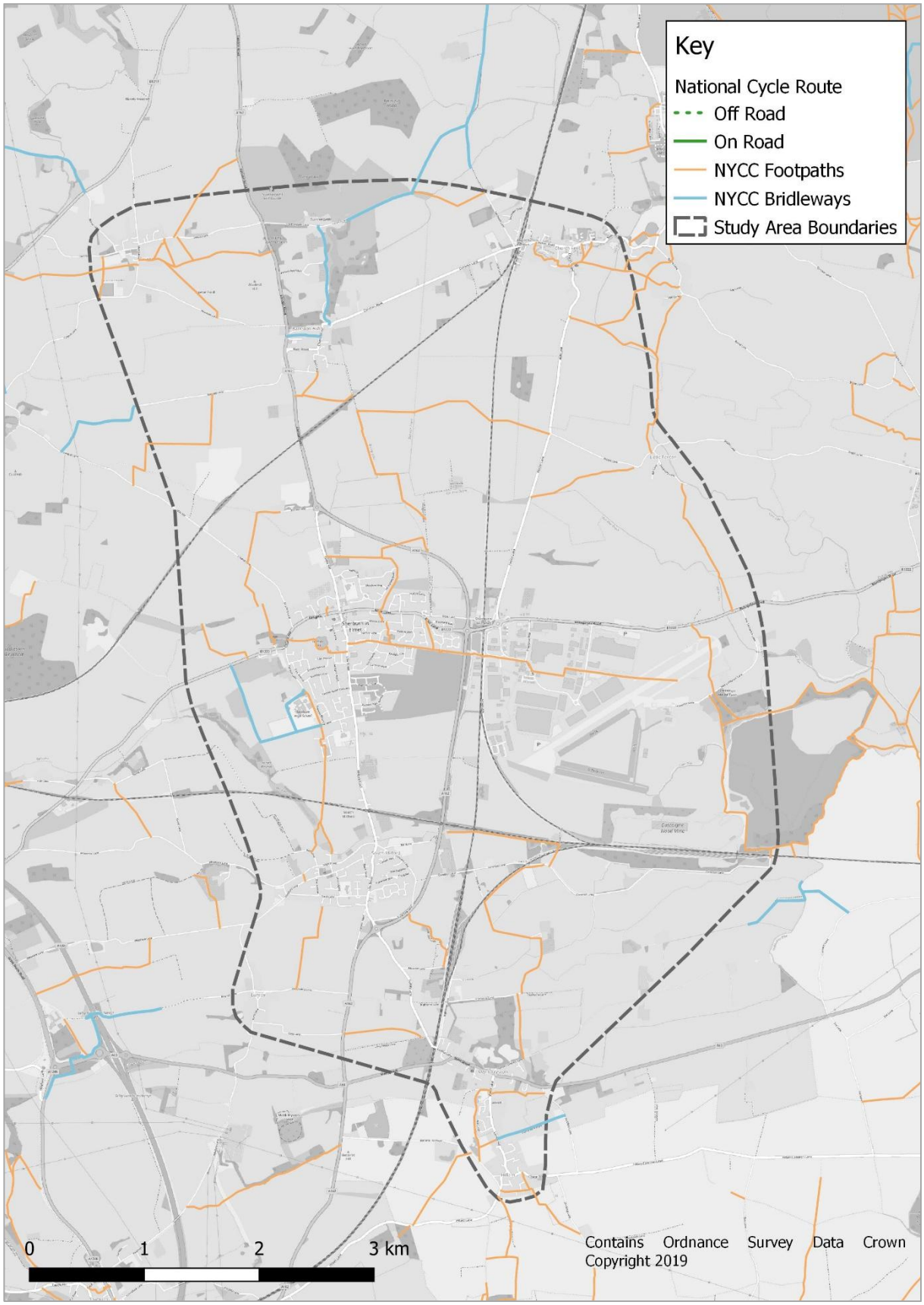
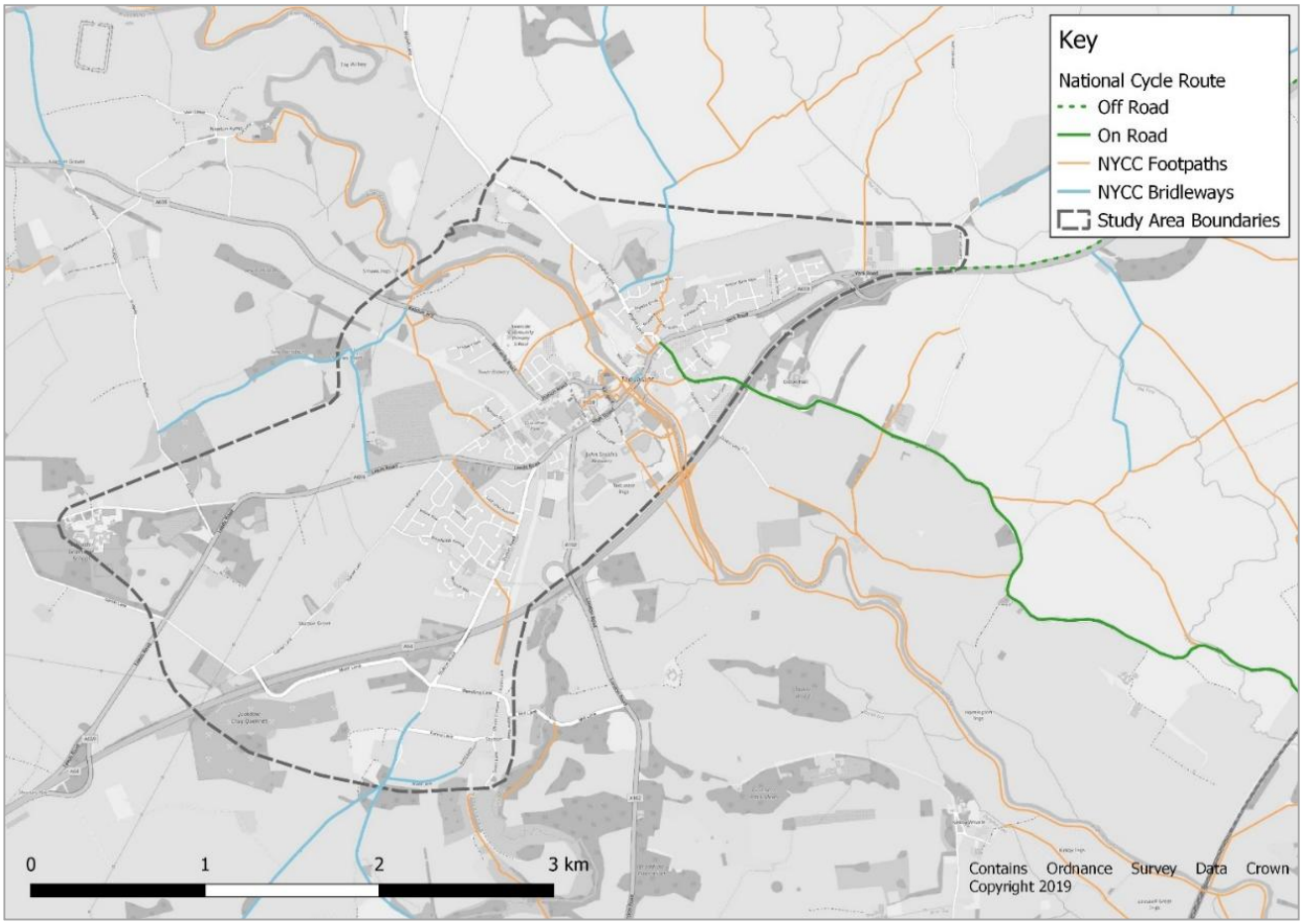


Figure 2-15 - Cycle Network & PROW within the LCWIP Study Area: Tadcaster



LCWIP Implications

- While there are few dedicated cycle tracks or bridleways in the study areas, those that do exist offer an opportunity to contribute to the respective LCWIP network in that area.
- In Selby, the Trans Pennine Trail could contribute toward the creation of a roughly north / south active travel corridor, while any improvements could also enhance the experience for leisure users and welcome longer distance users to Selby.
- In Tadcaster, the existing bridleways lie on routes that could form key links in the LCWIP network, with opportunities to expand access and routes for wider benefit.

PEDESTRIAN AND CYCLIST COLLISION DATA

2.5.14 Collisions involving pedestrians and cycle users can be seen as a barrier to taking up or continuing the activity, as they have a negative effect on both perceived and actual safety. However, existing data on collisions only provide some additional context regarding barriers to active travel. A poor route or junction may supress demand to such an extent that the numbers of walkers or cyclists are negligible or non-existent. Furthermore, the data only records accidents that cause injury; there are no records of near-misses or damage-only accidents.

2.5.15 Table 2-2 shows the total number of accidents involving pedestrians or cycle users within the LCWIP study areas from 2013 to 2017 (note this is no. of accidents, rather than no. of casualties), as well as the total number of casualties considered to be vulnerable road users (including cycle users, pedestrians, OAPs, and children), the total number of road user casualties in the study areas during that time, and how vulnerable road user casualties compare to the total road user casualties annually.

Table 2-2 - Study Areas Pedestrian & Cycle User Collisions

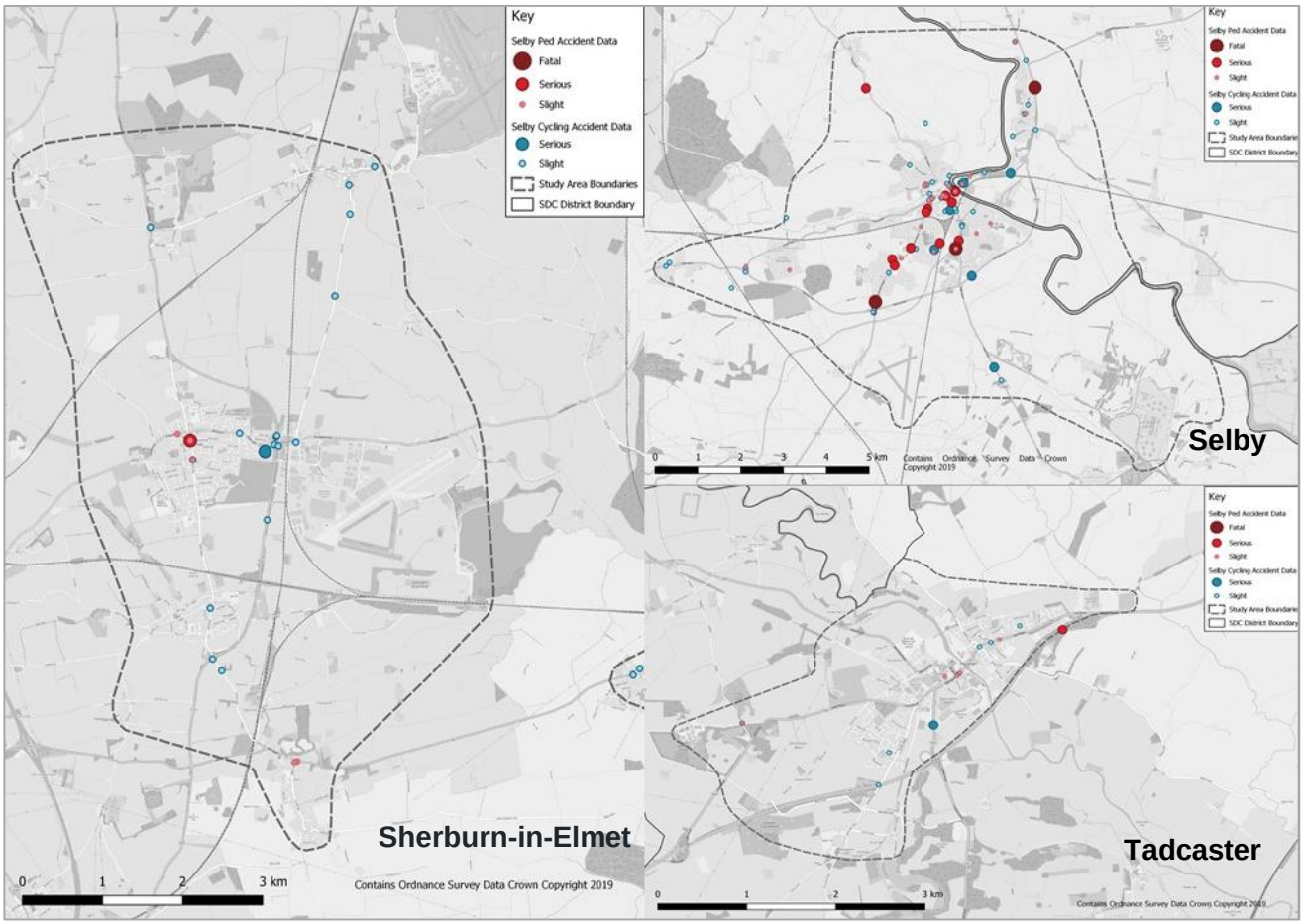
Severity	2013		2014		2015		2016		2017	
	Cycle	Walk	Cycle	Walk	Cycle	Walk	Cycle	Walk	Cycle	Walk
Slight	18	9	16	8	22	13	12	9	15	10
Serious	2	2	3	5	3	2	1	0	0	4
Fatal	0	1	0	0	0	0	0	1	0	1
Total Vulnerable Users Casualties	32		35		42		26		31	
Total Road User Casualties	102		100		103		81		88	
Vulnerable Users % of Road User Casualties	31%		35%		41%		32%		35%	

2.5.16 The data in the table above shows that over the five-year period there were three fatal collisions that involved a pedestrian, with each occurring on an A-class road within Selby. The data shows that between 2013 and 2017 the number of collisions has decreased; however, the number of vulnerable users has remained relatively constant, with the most collisions occurring in 2015 (42), while the least occurred the year after, in 2016 (26).

2.5.17 An average of the data in the table above shows that approximately a third of all road user casualties each year within the study areas involved vulnerable road users. Improving infrastructure within the study area could potentially contribute to reducing these.

2.5.18 The accident data has been used to produce Figure 2-16, illustrating where the accidents involving cyclists and pedestrians occurred. The figure shows all collisions over the 5-year period between 2013 and 2017. The data shows that where accidents occur in close proximity, this is typically along arterial roads or at junctions where there is also a higher number of vulnerable road users, such as pedestrians crossing.

Figure 2-16 - Pedestrian and Cyclist Collisions Location Plot (by Severity)



2.5.19 In Selby, the following routes or junctions are identified as potential accident hotspots:

- Brook Street;
- Bawtry Road;
- Barlby Road
- Flaxley Road / Scott Road priority junction;
- New Street / Barlby Road signalised junction;
- Brook Street / Gowthorpe signalised junction; and
- A64 / Doncaster Road roundabout.

2.5.20 In Sherburn, the following routes or junctions are identified as potential accident hotspots:

- Low Street, around the retail centre; and
- A162 / Moor Lane crossing points.

2.5.21 There are fewer accidents recorded in Tadcaster, with no more than three slight accidents occurring in close proximity over the 5-year period.

2.5.22 Any existing accident issues will be taken into account when considering any potential interventions. The need for intervention to address accident hotspots will also be considered when prioritising routes for design and investment.

CYCLE AND PEDESTRIAN FLOWS

2.5.23 While NYCC has a number of permanent ATC sites within the LCWIP Study Area, these sites do not obtain detailed vehicle classification data, and therefore numbers of cycle users could not be obtained from these sites. Although classification data was available from a number of temporary count sites, some of this data was over five years old, generally only short term (a week), and did not identify cycle user specifically, only categorising 'Other' where vehicles were not 'Cars', 'HGVs', or 'Buses'.

2.5.24 SDC have provided usage figures obtained from the Trans Pennine Trail Partnership, showing the number of both walkers and cyclists using the trail each year from 2014 to September 2018, as well as the overall spend based on the results of a face-to-face survey and online web-based survey as shown in Table 2-3. Note that a new counter was installed in 2016 capable of recording cycle users, hence the limited data.

Table 2-3 - Trans Pennine Trail Counts & Overall Spend - 2014 to 2018

Year	Walkers – Counter 1	Walkers1 Spend	Walkers2	Walkers2 Spend	Cyclist	Cyclist Spend
2014	4,062	£11,199	27,760	£76,540		
2015	3,679	£10,144	27,803	£76,660		
2016	1,208	£13,813	39,265	£179,458	4,868	£55,666
2017			52,049	£916,505	9,312	£60,983
2018			30,660*	£539,877*	9,161*	£59,994*

WALKING AND CYCLING ISOCHRONES

2.5.25 Active travel isochrones have been produced encompassing each LCWIP Study Area, identifying what extent of the District could reasonably be accessed by walking or cycling from a central point of interest. The isochrones use the following origin points:

- Selby Rail Station;
- Low Street, Sherburn; and
- Tadcaster High Street.

2.5.26 These focal points are near the urban centres of each study area, highlighting the maximum desirable active travel distances to some of the main commercial centres. While more comprehensive isochrone mapping from various strategic locations will form a key part of developing the Walking Network Map, these isochrones are used to help determine the extent of the study area for each location.

2.5.27 The NPPF and other established guidance documents on access to services and facilities (for example, *Guidelines for Providing for Journeys on Foot*, CIHT 2000) recognise that, beyond a certain distance, it becomes increasingly unlikely that people will walk or cycle to access services and facilities, instead using public transport or private motor vehicles. The following criteria are used in generating walking and cycling isochrones, representing the maximum desirable walking and cycling distances as identified in these documents.

Table 2-4 - Walking and Cycling Isochrone Criteria

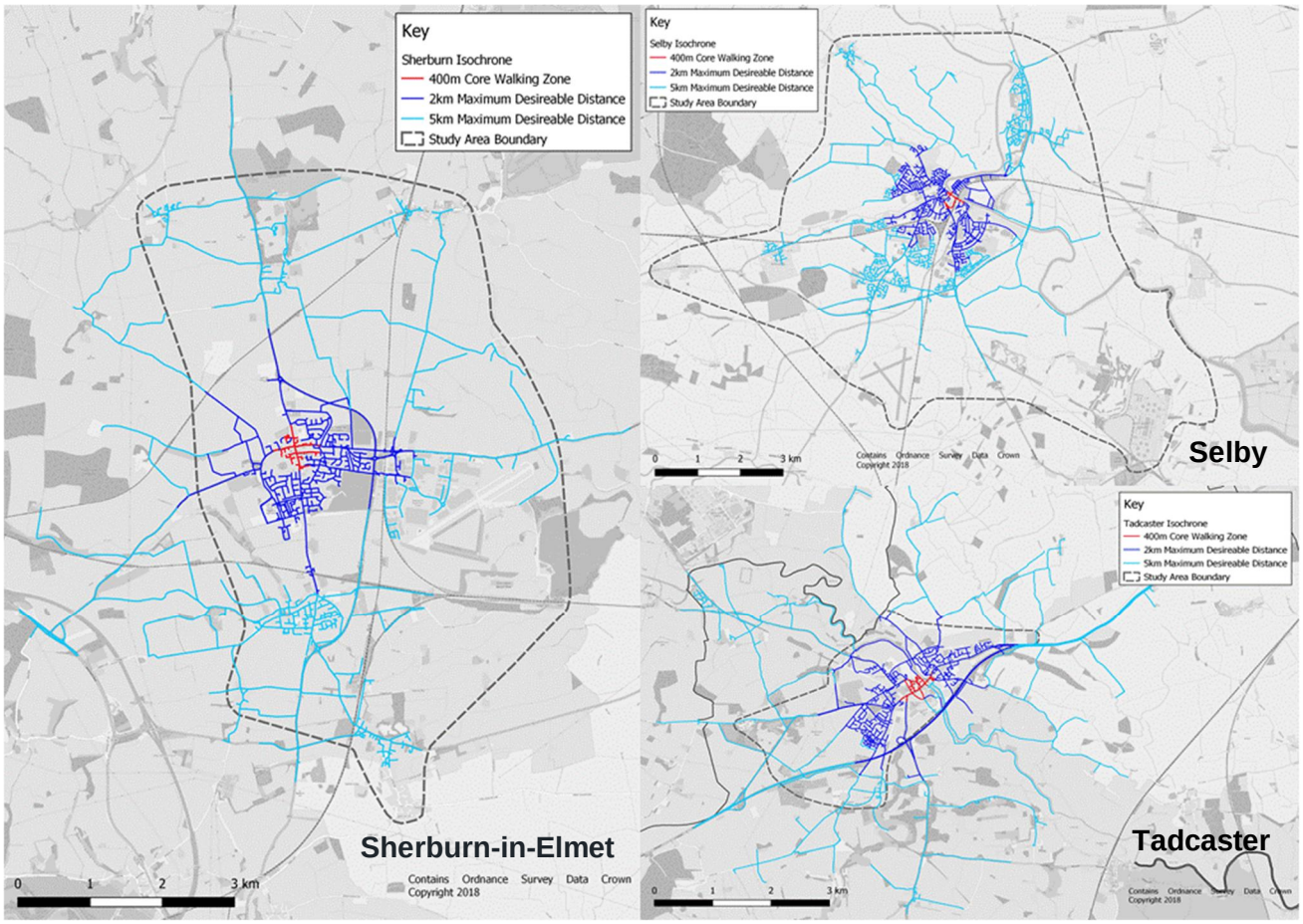
Mode	Maximum Desirable Distance
Walk	2km
Cycle	5km

2.5.28 The figures also show a distance of 400m; this relates to the Core Walking Zones as specified in the DfT LCWIP guidance (as discussed in Section 5.5).

2.5.29 Note that the isochrones show what extent of each LCWIP study area *could* be considered accessible by cycle or on foot based solely on distance (rather than the provision of infrastructure or hilliness, for example).

2.5.30 Figure 2-17 presents the isochrones for Selby, Sherburn-in-Elmet, and Tadcaster.

Figure 2-17 - LCWIP Study Area Active Travel Isochrone



2.5.31 The following points are noted in relation to Selby:

- The entire of the Selby urban area (including outlying villages) is within the maximum desirable cycling distance.
- The majority of the town of Selby is within the maximum desirable walking distance; and
- Some outlying areas, such as Hambleton and Drax, represent potentially major key origins and destinations. While the distance of such areas lessens the propensity to cycle, it has been considered prudent to include such outlying areas within the LCWIP study area.

2.5.32 The following points are noted in relation to Sherburn:

- The entire of the Sherburn urban area (including outlying villages) is within the maximum desirable cycling distance, with the majority also within the maximum desirable walking distance;
- There are several outlying villages within the maximum desirable cycling distance, including South Milford, Monk Fryston, Barkston Ash, and Church Fenton; and
- While there are several smaller villages and hamlets within the maximum desirable cycling distance, the diminishing returns associated with providing infrastructure to accommodate cycling links to the key ODs within Sherburn excludes these areas from the LCWIP study area.

2.5.33 The following points are noted in relation to Tadcaster:

- Tadcaster is relatively isolated from other urban areas when compared to Sherburn or Selby, with few villages of any strategic size within the maximum desirable walking or cycling distance; and
- While Thorpe Arch lies on the extent of the maximum desirable cycling distance to the north west, with Wetherby beyond, these lie outside the Selby District boundary, and are not considered as part of the Tadcaster LCWIP study area (the longer strategic link to Thorpe Arch / Wetherby is considered in Paths for Everyone (Sustrans, 2018).

LCWIP Implications

- The isochrone analysis shows that each study area has very different characteristics. Both Selby and Sherburn LCWIP study areas include some ODs on or beyond the maximum desirable cycling distance that may still be of benefit to include, and the boundaries reflect this.
- The potential benefit of the more strategic longer distance routes will need to be considered during the development of the emerging walking and cycling network maps.
- The Tadcaster LCWIP study area reflects the more isolated nature of the town, with most of the area being within the maximum desirable walking distance, necessitating a more granular study of key ODs.

CYCLING ACTIVITIES AND INITIATIVES

Cycle Events

2.5.34 Tadcaster hosted a race start as part of the Para-cycling International and UCI Road World Championships on the 21st September 2019. The para-cycling races will be one of the qualifiers for the Tokyo 2021 Summer Olympics. The routes include North Duffield, Riccall, Kelfield, Cawood, Ryther, Ossendyke, Ulleskelf and Tadcaster itself within Selby district, before heading out towards Wetherby.

2.5.35 The para-cycling races were followed by the week-long UCI Road World Championships. This is considered to be one of the biggest events in the cycling calendar, with riders competing for their countries rather than for individual race teams.

2.5.36 On Friday 27th September 2019, the District saw riders involved in the women's junior and men's under-23 road races as they make their way from Doncaster to Harrogate. These races came into the district at Little Heck, then through Eggborough, Kellington, Beal, Birkin, Hillam, Monk Fryston, South Milford, Sherburn-in-Elmet, Barkston Ash, Towton and Tadcaster and out towards Wetherby.

2.5.37 The area has taken a leading role in the international Tour de Yorkshire bike race, with Selby hosting a stage start of the race in 2015. More recently, The 2019 Tour de Yorkshire was held in Yorkshire over 2–5 May 2019, and was the fifth edition of the event, organized by Welcome to Yorkshire and the Amaury Sport Organisation. The stage 1 finish was held in Selby on 2nd May 2019, with thousands attending the event. SDC invested in bringing a race finish to Selby as part of the wider work to support local businesses and raise the profile of the area to visitors, and also in support for the Selby 950 celebrations, celebrating the 950th anniversary of the Abbey's foundation and the central role it plays in the town.

Cycle Hire and Recycling Schemes

2.5.38 Welcome to Yorkshire, as part of the legacy of the region hosting the Tour de Yorkshire 'Grand Depart' in 2014, has supported a Bike Library in Tadcaster, at Tadcaster Grammar School. Bike Library offers the chance for those without a bike to get out and enjoy cycling in the district by borrowing from the Bike Library. Welcome to Yorkshire also offer a bicycle recycling scheme at the same location, as well as in Selby and at Scarthingwell golf course, just north of Sherburn.

Selby Community Cycle Hub

2.5.39 SDC launched a new Community Cycle Hub in Selby Park on 4th May 2019, intended to be a focal point for a broad range of cycling activity, including informal support and advice on cycling, led rides, cycle training and supervised activities.

2.5.40 The Cycle Hub is in an ideal location to promote the LCWIP network as these routes come forward and run complementary behaviour change initiatives. Access to the hub could also be supported through the LCWIP, with Selby Park lying on a key desire line between the rail station and locations in the south west to the town centre.

Recreational Cycling Opportunities

2.5.41 Selby Leisure Centre offers a range of indoor cycling classes, while the Summit Indoor Adventure includes an indoor BMX track.

Cycle Clubs

2.5.42 Selby has a number of cycling clubs, predominantly focussed on cycling for leisure and recreational purposes:

- Selby Cycling Club is based in Selby and caters for all cyclists. The club runs different events to cater for different needs, offering time trials, social events, regular rides, and ladies rides.
- Sherburn-in-Elmet Cycle Club is based at the Oddfellows Arms pub in Sherburn and offers different rides for different abilities.
- Swans Tri Club began in 2018 and offers training for any of the traditional triathlon events (cycling, swimming, and running).
- Marshes Cycling Club, based in Snaith, to the south of Selby. This is a community-based club founded in 2012 and is open to all members, including absolute beginners. The club runs inclusive organised rides on both Saturday and Sunday mornings, while also running evening rides in the warmer months.

2.5.43 More information on Cycle Clubs in Selby District and the wider North Yorkshire County can be viewed at http://www.northyorkshirecycling.co.uk/clubs/.

Selby Trails (Pathways to Health)

2.5.44 NYCC promote a number of specific trails around the district in order to encourage residents and visitors to undertake more physical activity. The routes are highly accessible and inclusive, with an intention to add further routes through consultation with local cycle groups, group volunteers, and the Selby Active Travel working group. The Selby Trails maps are available on NYCC's website[12], which includes links to an associated Facebook group.

2.5.45 Where these routes align, the Selby Trails could from part of the LCWIP cycling and walking networks, with improvements to these routes having additional benefits to multiple user types (e.g. commuter, utility, leisure).

Bikeability Cycle Training

2.5.46 The Bikeability program is a DfT led initiative to provide training to on and off-road cycle users under the age of 16, with the aim of helping them develop better and safer cycling habits. The program is available to all schools in the country and is provided in a series of three levels.

2.5.47 Bikeability is delivered by North Yorkshire County Council as the Local Highway Authority. The DfT release statistics relating to topics such as funding and delivery; the Bikeability delivery statistics for

[12] https://www.northyorks.gov.uk/selby-trails-discoveries-your-doorstep

2006 to 2018[13] for the County were released in August 2018. These show NYCC were awarded £122,960 in funding in 2018, bidding for 3,371 places. NYCC delivered 4,311 places throughout North Yorkshire during 2017/18, approximately 940 more than were bid for.

LCWIP Implications

- Major events have recently raised the cycling profile within the study area, while a number of initiatives have sought to maintain this level of interest and further promote cycling.
- While the LCWIP is intrinsically aligned towards the provision of infrastructure, behaviour change initiatives are likely to play a significant and important role in promoting the network and ensuring it is used.
- Getting project support from existing initiatives and organisations will be essential if the LCWIP is to capitalise on this opportunity.

[13] Bikeability Delivery statistics 2006-18 – Local Highway Authorities, https://bikeability.org.uk/publications/

2.6 EXISTING TRANSPORT NETWORKS: ROAD, RAIL AND PUBLIC TRANSPORT

SYNERGY WITH OTHER TRANSPORT MODES

2.6.1 The focus of the Selby District LCWIP is first and foremost on providing the necessary infrastructure to create a high-quality active travel environment. Such a network should encourage modal shift, enabling journeys that were previously unattractive by walking and cycling. It is therefore important to understand and appreciate the current transport situation in the District, considering the synergies between the LCWIP and the various issues associated with other modes of travel.

2.6.2 SDC's Infrastructure Delivery Plan (IDP) was last published in 2014 (note that an IDP is a 'living' document, and can be updated as necessary), and contains the most recent profile of the existing infrastructure in the Borough.

2.6.3 Information from these documents, as well as that obtained through various other policy documents, studies, and stakeholder engagement, have been used to consider how the LCWIP could contribute to improving the wider transport issues in the District.

HIGHWAYS

2.6.4 The District is considered to benefit from good transportation links, with direct access to the A19, and A63 as major arterial routes, as well as the A64, M62, M1 and A1 (M), which form part of the Strategic Road Network (SRN) under Highways England's jurisdiction.

2.6.5 The main traffic routes in the District also include the A162, A1041/A645/A614 between Selby and the M62, A163 to Market Weighton, and the B1222 (between Escrick and the A63 Old Great North Road to the west of Sherburn-in-Elmet).

2.6.6 Given the current expected timescales, it is more likely that the LCWIP Walking and Cycling Network Maps and priorities will be finalised prior to the PLAN Selby transport evidence base, and any mitigation required as a consequence of this study should pay due cognisance to the Selby District LCWIP and respective network maps.

2.6.7 Figure 2-3 in the preceding sections show the major roads in Selby, Sherburn, and Tadcaster respectively in regard to the potential severance caused by arterial routes.

PUBLIC TRANSPORT

Rail

2.6.8 Selby District is considered to have strong public transport connectivity, benefiting from a number of strategic railway links including the electrified east coast main line and the Manchester to Hull Trans-Pennine line, as well as a direct service to London from Selby.

2.6.9 Selby Rail Station is operated by TransPennine Express (TPE), and is served by both TPE and Northern services. The station benefits from current journey times to Leeds of approximately 20 minutes, twice hourly via TPE services, and 30 to 35 minutes to York on an hourly basis via Northern services.

2.6.10 An hourly Northern service to Huddersfield via Leeds also operates from the station, with a journey time of 35 to 40 minutes, as well as Hull Trains services providing a direct link to London with a journey time of approximately two hours, with seven services per day per direction.

2.6.11 Peak travel from Selby Railway Station also includes an hourly direct train service to York, and an hourly service to Manchester (via Leeds).

2.6.12 Entrances/exits at Selby Rail Station have steadily increased from 0.48 million in 2010/11 to 0.65m in 2017/18[14]. Network Rail's Northern Route Utilisation Strategy (RUS) also forecasts significantly more growth in rail usage over the next ten to twenty years.

2.6.13 In order to accommodate this growth, rail improvement plans are expected to increase the number of trains serving Selby Rail Station, with improvements including the electrification of the Leeds to Selby line, and increased Sunday services, with a Selby to Leeds service and an hourly Sunday service between Hull and York via Selby introduced.

2.6.14 Transport for the North's Northern Transport Strategy[15], published in March 2016, aims to achieve a vision of more frequent trains and greater connectivity to deliver the Northern Powerhouse. The rail enhancement programme includes the North TransPennine Route Upgrade, which incorporates the electrification of the Manchester to Selby section of the line.

2.6.15 Phase 2 of HS2 will also include a link through Selby District as the line branches off the existing East Coast Main Line towards Leeds near to Church Fenton.

2.6.16 SDC have commissioned Arup to produce a comprehensive Masterplan of the rail station and its surrounding area (The Selby Rail Station District) in order to consider how best to capitalise on the strategic connectivity offered by the rail station.

2.6.17 TPE released a Station Travel Plan for Selby Rail Station in 2019. The travel plan presents a profile of the methods of travel utilised when accessing the rail station, including audits of local walking and cycling routes, car and cycle parking facilities, and a survey of user behaviours. The Travel Plan sets out a number of objectives regarding travel to and from the station, including encouraging travel by sustainable methods. The Travel Plan also identifies a number of opportunities to help achieve this objective, including the provision of access from the southern side of the station and a new access between the platforms, likely in the form of lifts.

2.6.18 Sherburn also benefits from strong rail links with South Milford, Church Fenton, and Sherburn rail stations within the LCWIP study area. While these stations remain significant attractors in their own right and are important ODs in relation to the Sherburn LCWIP study area, it is recognised that none are currently manned or offer as comprehensive a service as Selby Rail Station.

2.6.19 Tadcaster does not currently benefit from a railway station; historically, the town sat on the Harrogate to Church Fenton line, but the station was closed to passengers in 1964, with the station demolished in 1971.

[14] ORR estimates of station usage

[15] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505705/northern-transport-strategy-spring-2016.pdf

Bus

2.6.20 The majority of the local bus services in the District are operated by Arriva, although services with lower frequencies and / or coverage are operated by various companies, including Metro, Transdev Coastliner, Thornes, Utopia, and York Pullman.

2.6.21 There are a number of bus services in Selby providing links to other regional centres, including Doncaster, Goole, Leeds, York and Pontefract, typically with an hourly frequency. Other local centres such as Sherburn-in-Elmet, Howden, Knottingley and Micklefield as served as part of these routes.

2.6.22 Local routes include a service between Staynor Hall and Charles Street and a circular service calling at Brayton and Thorpe Willoughby. These services also typically operate hourly.

2.6.23 The Selby IDP states that Arriva are not currently in a position to commit to long term plans for future levels of transport provision, and that any new service or diversion of an existing route to serve new development would likely require 'pump priming' through developer contributions or subsidies until such a point as the services became economically viable.

2.6.24 Selby bus station is located on Station Road, just to the south of the rail station and Selby Park. The bus station itself is comprised of a few shelters, a number of angled bays and a lay-by, with no central ticket office or information point. Note that the bus station is included within the emerging Selby Rail Station Masterplan area.

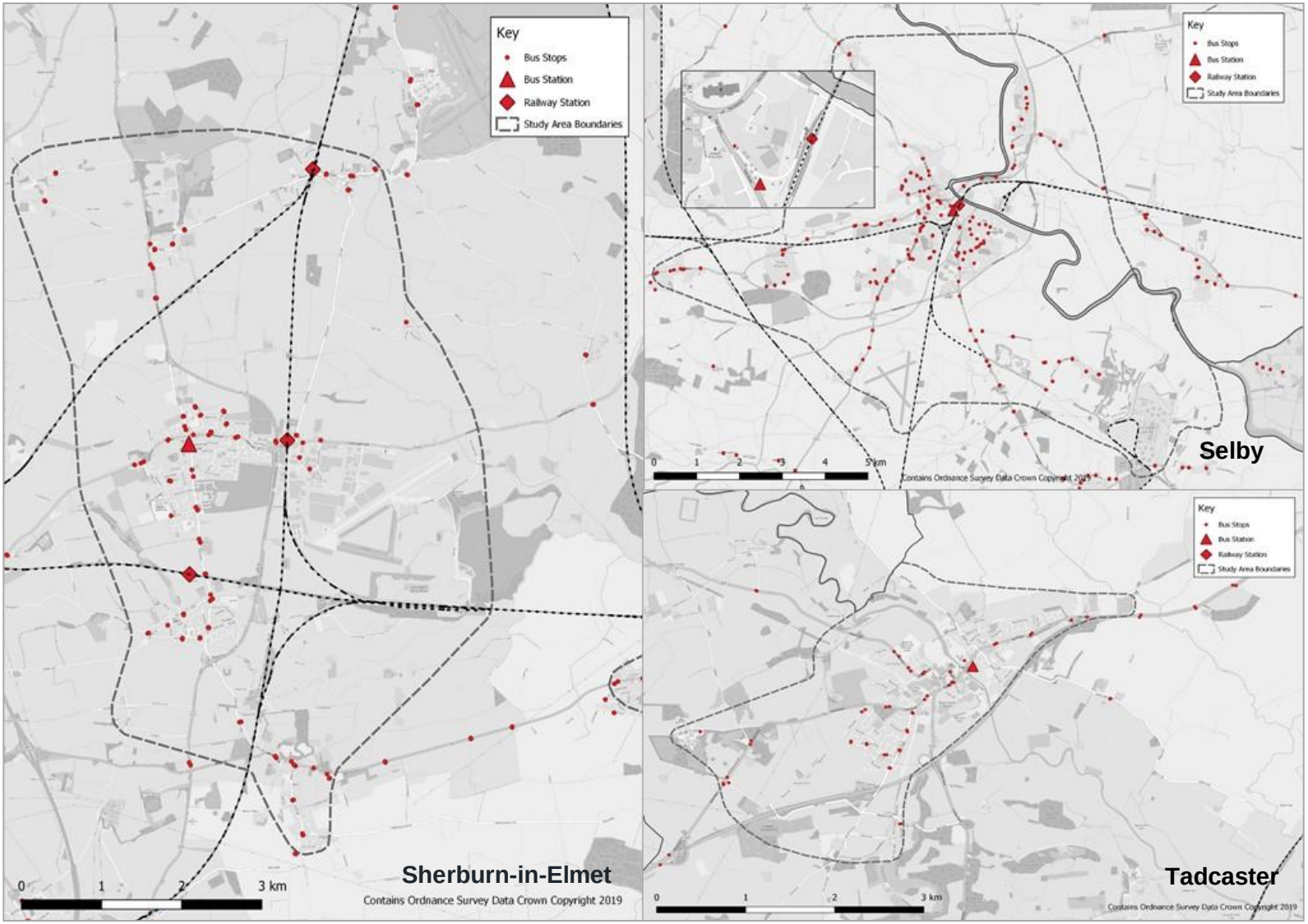
2.6.25 Sherburn does not have a formal bus station, with the primary point of access to bus services being the two shelters provided in the village centre. Conversely, Tadcaster does feature a formalised bus station; while the facilities are essentially an extensive bus shelter surrounded by several bays, the central location with numerous facilities and public realm improvements create a more attractive location.

2.6.26 Bus / cycle integration is less common than the rail equivalent, with bus services typically accessible from more locations and bicycles generally prohibited from buses themselves. Nevertheless, it should be recognised that cycle usage has the potential to substitute bus travel where services are infrequent or non-existent, particularly given the uncertainty regarding future services and subsidies.

Public Transport Infrastructure

2.6.27 Figure 2-18 illustrates the location of the railway line through the respective LCWIP areas, as well as the locations of the various public transport stations and bus stops. The railway itself could cause significant severance in the LCWIP network if key desire lines are located across routes with no existing crossing points, while the rail stations (and bus stations to a lesser degree) represent key OD points in the network.

Figure 2-18 - Location of Rail Line, Stations and Bus Stopping Points

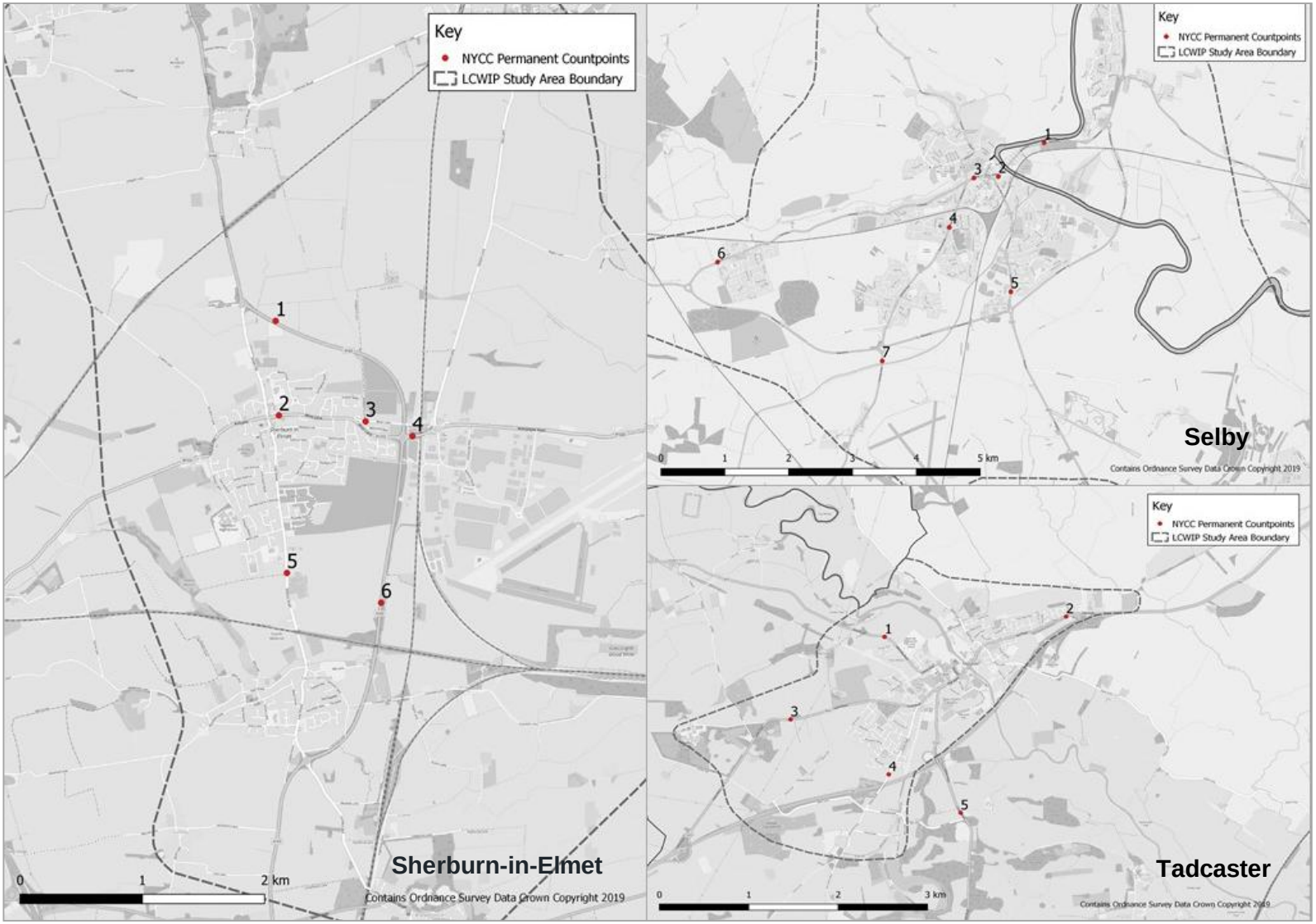


TRAFFIC FLOWS

2.6.28 The type of infrastructure recommended in current best practice guidance is directly impacted by the levels of traffic on a route and also the speed of the traffic. Routes which have Average Annual Daily Traffic flows (AADT) of over 5,000 vehicles will require a much higher degree of segregation to achieve modal shift. A higher degree of segregation is also required to induce modal shift along routes which have a speed limit of 30 or above.

2.6.29 NYCC's online database has been used to obtain data on vehicle numbers and speeds along key arterial routes. For the purpose of this analysis it was decided that only permanent count points would be used as these would provide the most robust data which could be compared over a number of years; these count points can be seen in Figure 2-19.

Figure 2-19 - Traffic Counter Locations



2.6.30 Directness of routes is also a major contributor to the design of a successful cycle network; the selected count points are along key arterial routes into the centre of each study area, which will likely form a core element of a comprehensive cycle network.

2.6.31 AADT flows and 85th percentile speeds are presented in Table 2-5, Table 2-6 and Table 2-7 for Selby, Sherburn and Tadcaster respectively.

Table 2-5 - Selby NYCC Countpoint - AADT and 85th Percentile Speeds

Road Name	AADT	85th Percentile Speed (Mph)	Plan Reference
A19 Barlby Road	11,039	33.5	1
The Crescent	10,872	24.6	2
A19 Gowthorpe Road	9,810	19.2	3
A19 Doncaster Road	9,353	25.5	4
A1041 North	16,766	-	5
A1238 West of Thorpe Willoughby	6,009	41.2	6
A19 South	7,293	45	7

Table 2-6 - Sherburn NYCC Countpoint - AADT and 85th Percentile Speeds

Road Name	AADT	85th Percentile Speed (Mph)	Plan Reference
A162	3,429	43.9 (2012)	1
B1222 Moor Lane	5,366	-	2
u/c Moor Lane	184	-	3
B1222 East	12,158	26.5	4
C321 Milford Road	5,958	-	5
A162	11,415	55.2	6

Table 2-7 - Tadcaster NYCC Countpoint - AADT and 85th Percentile Speeds

Road Name	AADT	85th Percentile Speed (Mph)	Plan Reference
A659 Wetherby Road	4,293	39.5	1
A659 York Road	6,061	36.6	2
A659 Leeds Road	5,604	46.4	3
u/c Stutton Road	1,268	-	4
A162 South of A64	9,513	53.5	6

2.6.32 Current best practice indicates that only roads with an AADT below 2,500 and an average speed below 20mph are likely to offer a high-quality environment for cycling in the carriageway with other vehicles (although it should be noted that fully segregated infrastructure would still provide a higher level of service in most situations).

2.6.33 Within Selby, all the roads surveyed have AADTs far in excess of these values, indicating that potential cycle users are likely to either require segregated infrastructure or an alternative route of a similarly direct nature in order to realise the potential for cycling in the district. The routes within the town centre around the A19 Gowthorpe Road and The Crescent are likely to pose particular challenges, with Selby town centre being one of the most important destinations in the district.

2.6.34 While traffic flows are comparatively lower in Sherburn, the high speeds associated with rural roads are equally unconducive to cycling for everyday purposes. The higher AADTs on the A162 and B122 between Sherburn town and the Sherburn Park industrial estate, a key employer in the town, also create severance between the areas, limiting the propensity to travel by active modes.

2.6.35 The roads around Tadcaster are characterised by lower AADTs, although the AADTs and average speeds are still considered unsuitable for cycling with mixed traffic. The roads surveyed represent the main arterial routes into Tadcaster from the outskirts and surrounding areas, indicating that such routes would either require engineering solutions to provide segregated infrastructure or the identification of comparable parallel routes.

LCWIP Implications

- There is an opportunity to expand upon cycle-share and hire initiatives for the benefit of those who currently do not have access to cycles.
- There is also opportunity to capitalise on existing initiatives, events, infrastructure and club structures in an effort to increase cycle participation across the community.
- Tour de France and Tour de Yorkshire have raised the cycling profile within the study area.
- The anticipated significant increases in rail services through Selby will likely increase patronage, presenting an opportunity to influence travel to and from the stations.
- The emerging Selby Rail Station masterplan and Selby station travel plan set out a number of new links and improvements that could be made to the walking and cycling network and associated infrastructure (such as parking) that could be incorporated within the LCWIP.
- Access to bus stops and stations could also be enhanced through the LCWIP process, likely focussing on improvements to the walking network.
- Despite potential deliverability challenges, the need for such infrastructure presents an opportunity to provide genuine high-quality pedestrian and cycling infrastructure that can be an exemplar for best practice across North Yorkshire and the wider country.
- Relatedly, given the constrained nature and built up urban areas, it may be necessary to also consider traffic movements and wider highways schemes in conjunction with walking and cycling interventions.

2.7 EXISTING ORIGINS AND DESTINATIONS

2.7.1 The development of an LCWIP relies on a detailed understanding of the key origins and destinations (ODs) in each study area, identifying where individuals currently move to and from. A desktop study of key origins and destinations was therefore carried out in order to identify the existing locations within the three LCWIP study areas that are most likely to benefit from additional pedestrian and cycle access and connectivity.

ORIGINS

2.7.2 To identify significant residential (origin) areas, proxy nodes were plotted using a GIS, based on 2011 Census data available from the Office for National Statistics (ONS). Population weighted centroids for Census Output Areas (OA) were mapped, showing where the population is greatest within the OA boundaries, and thereby indicating the urban areas with the greatest potential for trips. These nodes were reviewed, using an Ordnance Survey (OS) basemap as a reference, and manually adjusted where necessary to ensure that they were located over urban areas to represent realistic trip origins. Additional points were added where required in order to ensure all urban residential areas were adequately represented.

DESTINATIONS

2.7.3 Key destinations were identified across each of the LCWIP study areas in order to determine where people are travelling to on a regular basis. These sites were identified through analysis of available spatial data, desktop and site surveys, and stakeholder engagement. Key destinations include the following location types:

- Employment Sites;
- Parks and Open Spaces;
- Sport and Leisure Facilities;
- Healthcare Facilities;
- Grocery / Shopping Facilities;
- Tourist Attractions and Points of Interest; and
- Schools and Further Education Establishments.

2.7.4 The following subsections present a list of the key identified destinations (note this list is not intended to be exhaustive), and the accompanying spatial plots.

SELBY

2.7.5 As the largest urban area in the district, there are significantly more ODs within the Selby LCWIP study area than within either Tadcaster or Sherburn-in-Elmet, with many of these located within Selby itself, rather than the outlying villages.

2.7.6 Plans showing the locations of origin and destination points in Selby are shown in Figure 2-20 and Figure 2-21.

Figure 2-20 - Origin-Destination Plots: Selby

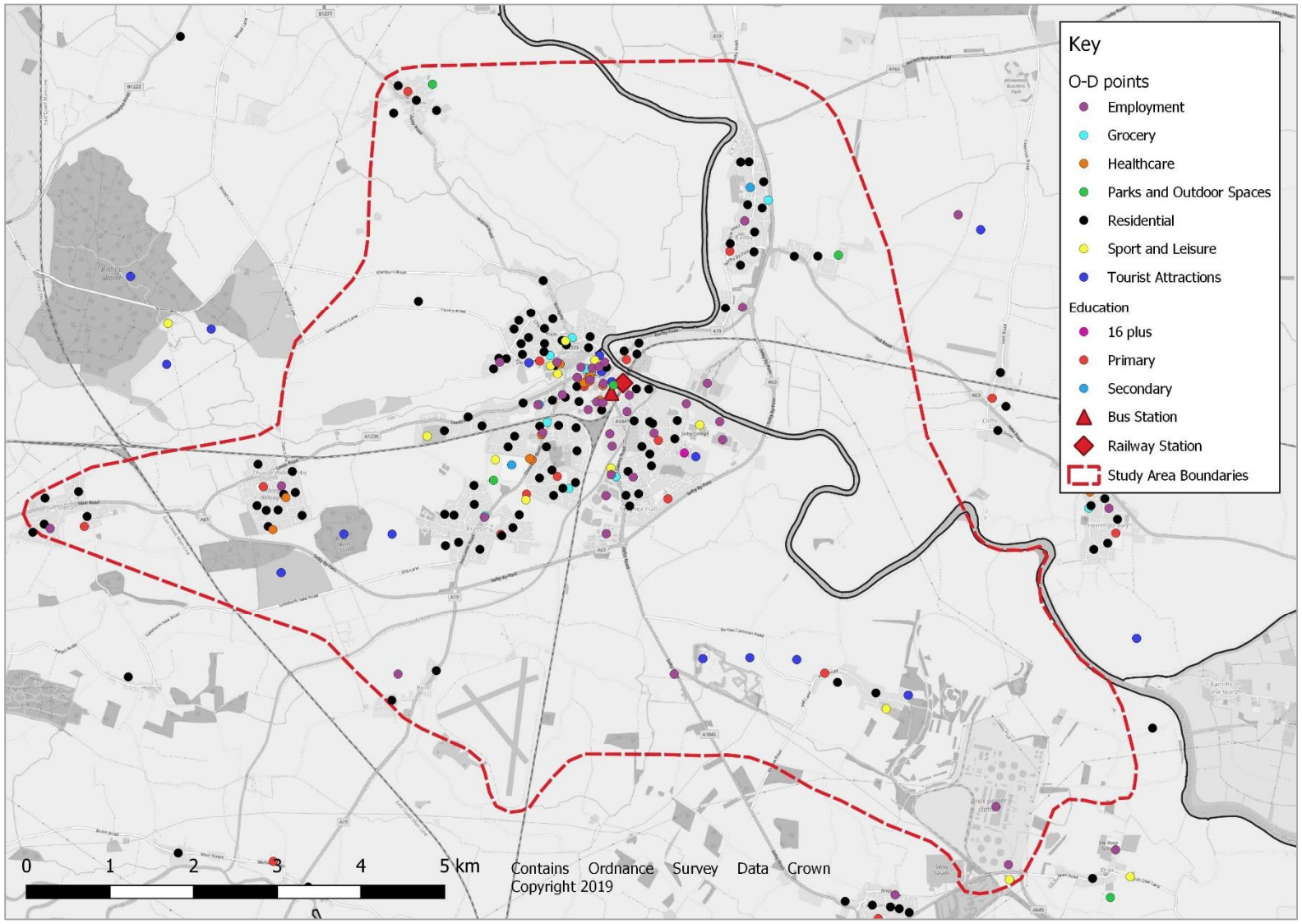
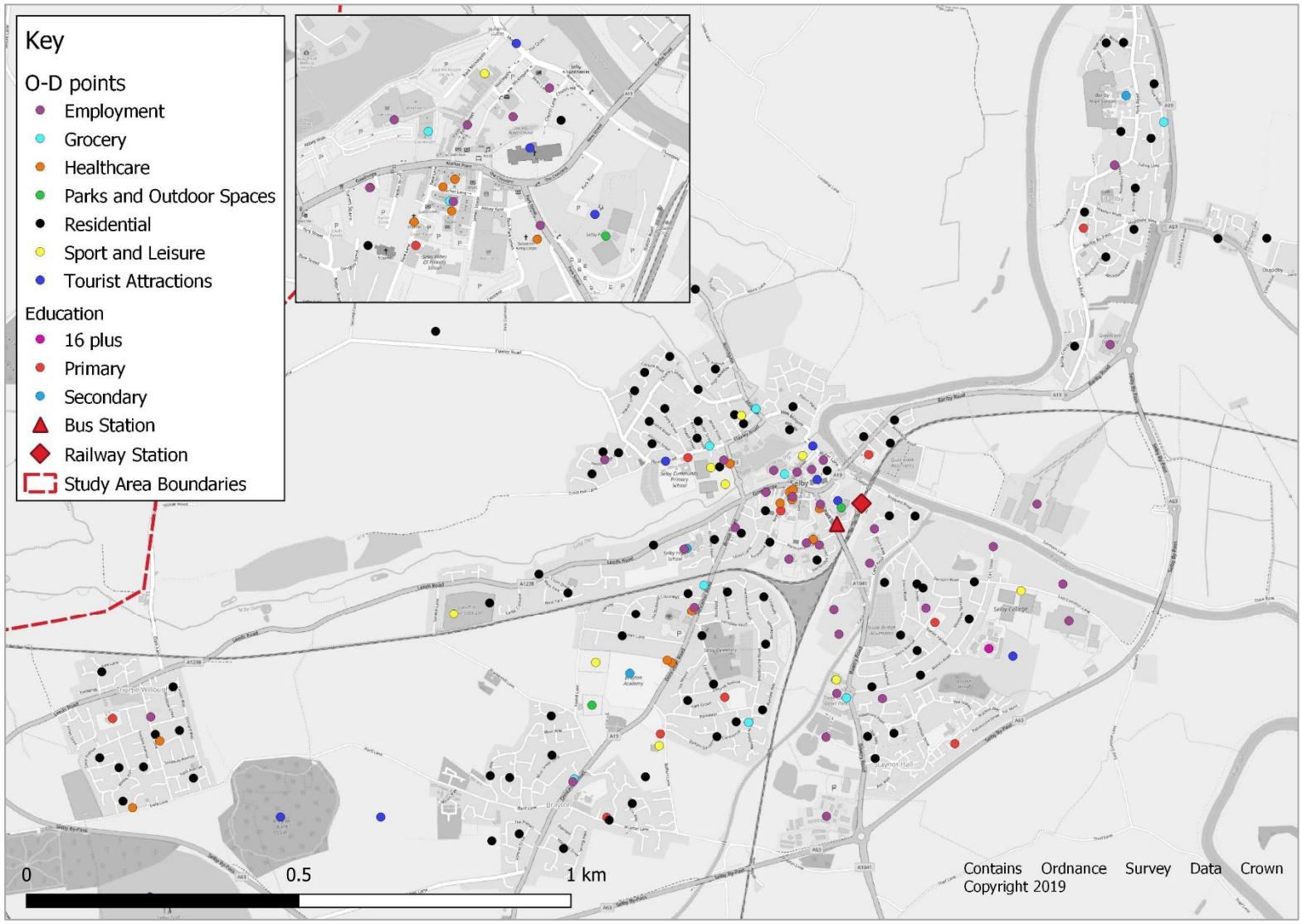


Figure 2-21 - Origin-Destination Plots: Selby Town



SHERBURN-IN-ELMET

2.7.7 Whilst smaller than the Selby LCWIP study area, the Sherburn LCWIP study area incorporates many of the outlying villages (particularly the closely aligned South Milford). The industrial uses in east Sherburn in particular constitute some of the main employment sites in the District, and the village also includes a number of facilities that outlying villages and hamlets are reliant upon.

2.7.8 Figure 2-22 to Figure 2-24 show the locations of key ODs identified in Sherburn.

Figure 2-22 - Origin-Destination Plots: Sherburn

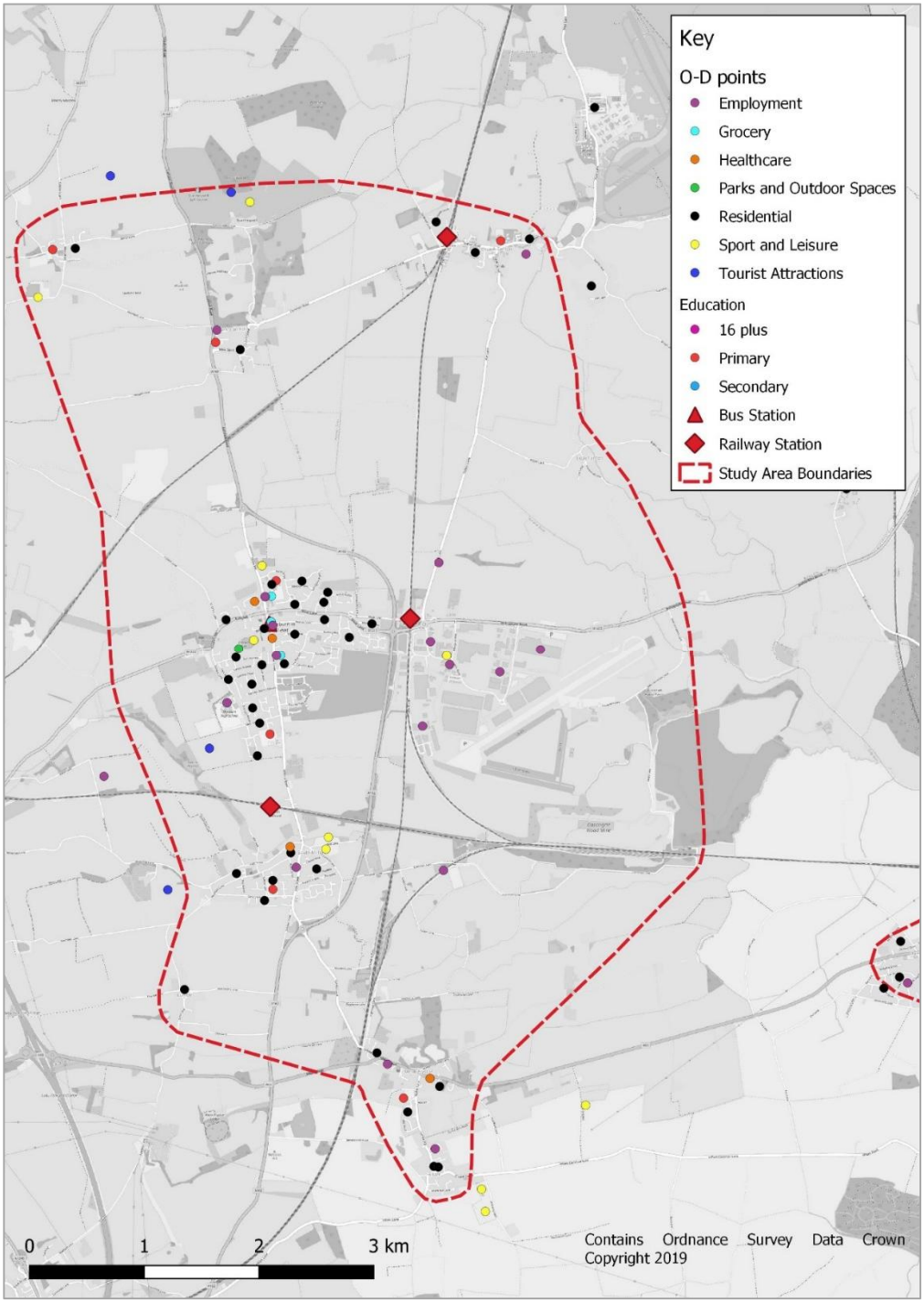


Figure 2-23 - Origin-Destination Plots: Sherburn (North)

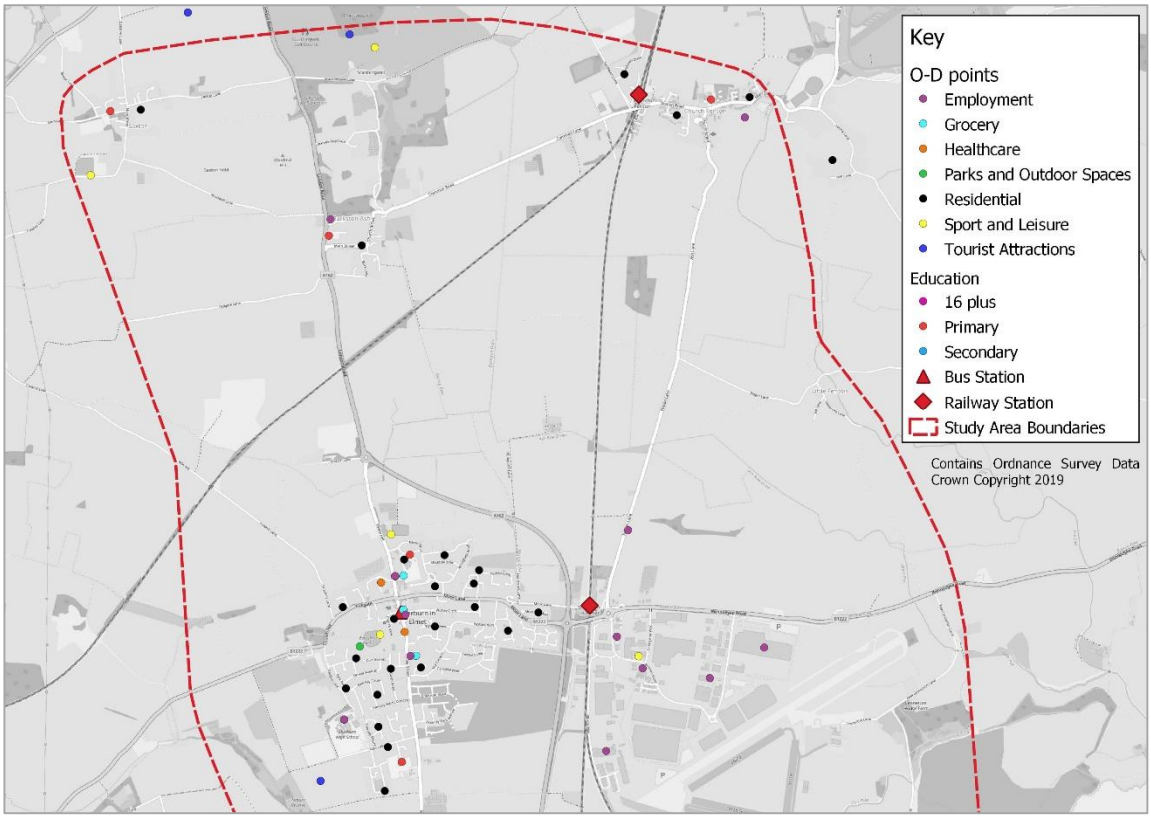
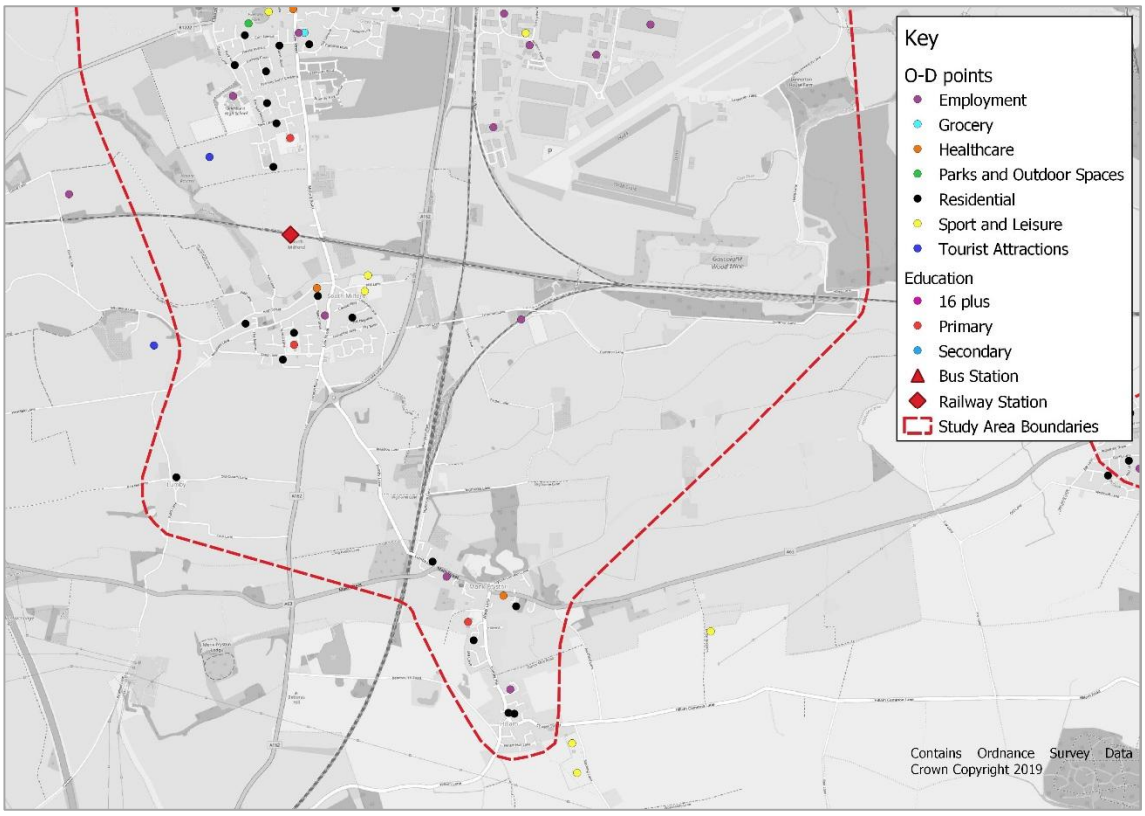


Figure 2-24 - Origin-Destination Plots: Sherburn (South)

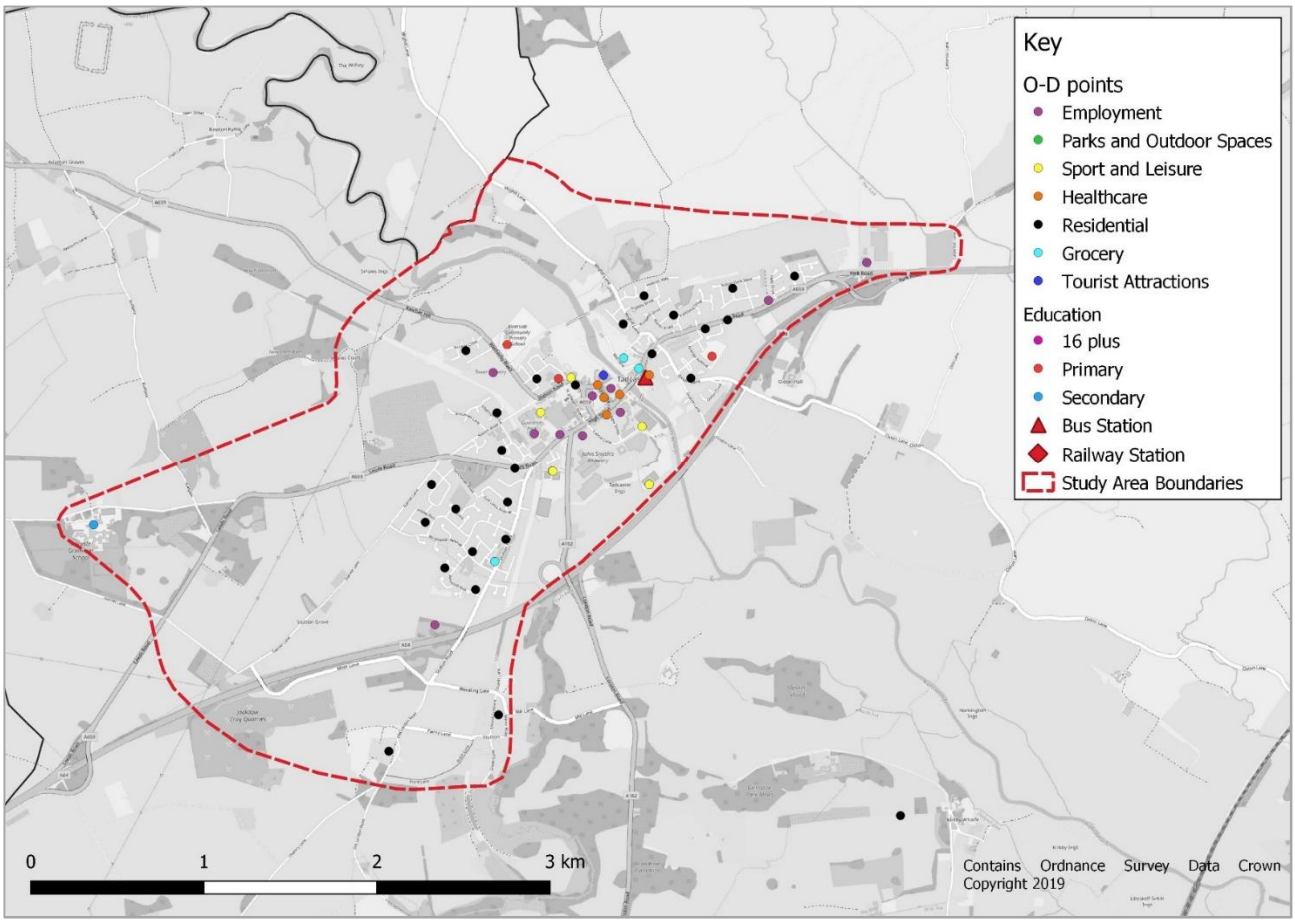


TADCASTER

2.7.9 The Tadcaster LCWIP study area is considerably smaller than the Selby or Sherburn study areas, incorporating the main urban area of Tadcaster itself. While there are therefore fewer key destinations identified, these locations form essential services, facilities, and employment opportunities.

2.7.10 Figure 2-25 shows the location of key ODs identified in Tadcaster.

Figure 2-25 - Origin-Destination Plots: Tadcaster



2.8 FUTURE SITUATION

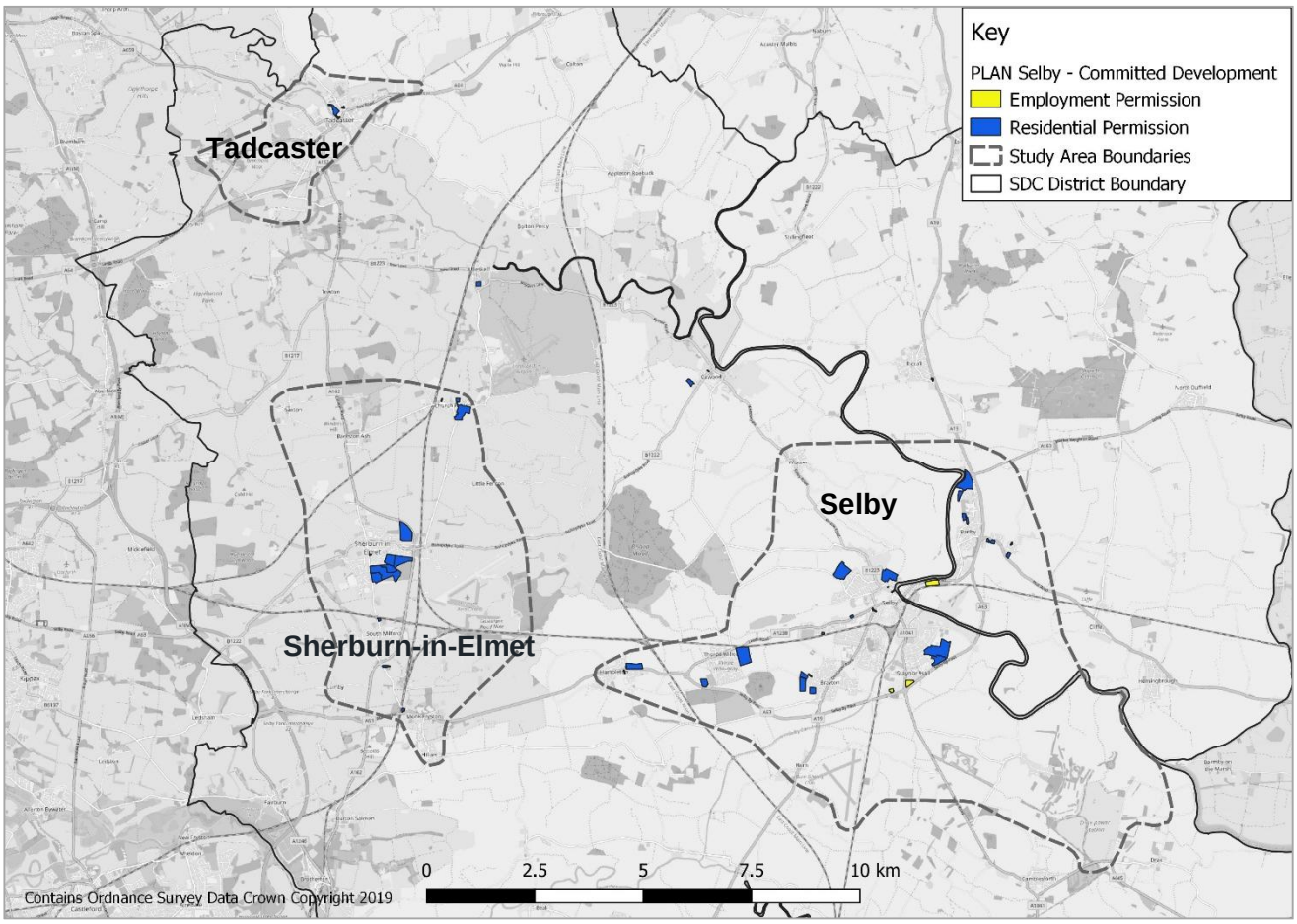
PLANNED AND ASPIRATIONAL DEVELOPMENT GROWTH

2.8.1 Planned and aspirational growth is an important consideration when implementing new cycling and walking infrastructure. New developments may become significant origins and destinations due to size, capacity or influence and therefore links to the cycle and walking networks would be necessary. This section of the report summarises the growth aspirations of the district over the Selby District Core Strategy plan period to 2027, including the proposed site allocations currently considered as part of PLAN Selby, the emerging SDC Site and Policies Local Plan. Consideration is also given toward recent and committed development schemes in the LCWIP study areas.

Committed and Recent Development

2.8.2 There are a number of extant planning permissions across the LCWIP study areas which have the potential to alter existing travel demands across the LCWIP study areas; these sites are identified in Figure 2-26.

Figure 2-26 - PLAN Selby Extant Planning Permissions



2.8.3 The vast majority of these developments are housing sites, creating additional origin points for consideration. A number of these sites are relatively significant in size, although permissions granted at Olympia Park and Rigid Paper Mill have now lapsed.

Staynor Hall, Selby

2.8.4 The Staynor Hall site has been in development for over a decade, with outline permission granted in June 2005. The site has since come forward in multiple phases, which are still ongoing. Once fully built out, the site will include approximately 1,200 dwellings, alongside new public open space, shops, community facilities, and the new Staynor Hall Community Primary Academy.

Rigid Paper Mill site, Denison Road

2.8.5 The Rigid Paper Mill site closed in 2009 with the loss of approximately 90 jobs. Since then, there have been significant development aspirations for the site, with the waterfront location considered ideal for a mixed-use marina development. While a proposed development was granted permission in 2014, this permission has now lapsed, and it is understood that SDC are working alongside the developer and their consultants to deliver a scheme that meets the shared aspirations and desire for market renewal.

2.8.6 The site is expected to support circa 300 dwellings, with mixed-uses including a new local centre and various eateries.

Olympia Park

2.8.7 Olympia Park is a large strategic mixed-use development site, located to the east of Selby, broadly extending from Barlby Bridge Community School to Selby Bypass. The site is bound by the River Ouse, the A19 Barlby Road, the Leeds / Hull railway and the A63 Selby Bypass, making access to the site challenging.

2.8.8 Existing land uses comprise a mixture of employment uses, redundant industrial buildings and former operational land, and greenfield land in the form of allotments, playing fields, woodland and agricultural land.

2.8.9 The Core Strategy identified the site as an opportunity to provide for approximately 1,000 additional dwellings in the town, accounting for circa 40% of the growth target for the area. Part of the site was also safeguarded for the expansion of freight handling and storage activities associated with an existing freight transfer depot and railhead, which bisects the central part of the site.

2.8.10 Hybrid Planning Permission for the site was granted in 2014, and the development included proposals for over 850 new homes, local shops, a new primary school and extensive public open space and children's play areas, as well as new and improved replacement sports facilities, with a purpose designed club-house and changing facilities. The relocation and enhancement of the existing allotments to the northern part of the site also formed part of the detailed proposals. However, this permission has since lapsed.

2.8.11 Policy SP7 of the Core Strategy: Olympia Park Strategic Development Site, sets out a number of site-specific requirements in order to guide development. Requirement 11 considers the role of sustainable transport:

"Development should maximise opportunities for sustainable travel, including reducing the dependency on the car through development of a Travel Plan and by providing suitable access to existing local facilities and services, providing new passenger transport links, and ensuring safe, attractive and convenient pedestrian and cycle routes between the development and neighbouring areas, including Selby Town Centre".

Growth Aspirations

SDC Local Plan Core Strategy

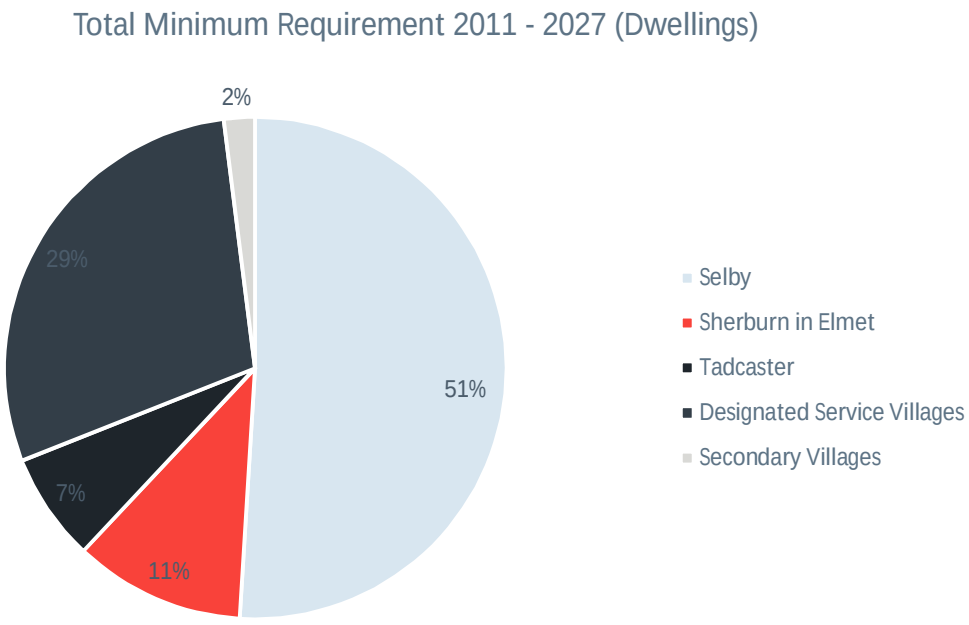
2.8.12 The SDC Local Plan Core Strategy sets out the principals for growth across the District over the plan period, although it should be noted that this document does not allocate any specific sites for development bar the Olympia Park Sustainable Urban Extension (SUE). The forthcoming PLAN Selby Site Allocations DPD is anticipated to allocate sufficient sites to fulfil the growth aspirations of the District. Furthermore, SDC are currently developing a new development brief in order to consider how best to bring forward development on the Olympia Park site, which is anticipated to change the extends of the site and the associated quantum of development.

2.8.13 The Core Strategy states that Selby, as the principal town in the District, will be the main focus for growth in new housing, employment, retail, commercial, and leisure facilities.

2.8.14 The document anticipates that the adjoining villages of Barlby, Osgodby, and Thorpe Willoughby will form a complimentary role to Selby itself, providing a better range of facilities to promote sustainability, but the overarching aim of the strategy is to create opportunities for Selby while promoting the individual aspects of these villages.

2.8.15 The Core Strategy identifies a target of 7,200 dwellings over the plan period, or 450 dwellings per annum (dpa), in order to meet the growth aspirations for the District. Figure 2-27 illustrates the proportion of housing development allocated to each area, clearly identifying the emphasis placed on Selby as the centre for growth.

Figure 2-27 - Proportion of Housing Development by Location



2.8.16 Between the adoption of the Core Strategy and the forthcoming PLAN Selby site allocations Local Plan adoption, the 450 dpa target is expected to be delivered from planning permissions on existing allocated SDLP Phase 2 sites (released in 2011 to boost supply) and other existing commitments

('known windfalls'), as well as a significant contribution from the strategic development site at Olympia Park in Selby.

2.8.17 Policy SP5 sets out development targets for the District, which are summarised in the table below.

Table 2-8 - SDC Core Strategy Development Targets

Core Strategy Requirements	Selby	Tadcaster	Sherburn-in-Elmet	Designated Service Villages (DSVs)
Total Commitments	2,171	33	1,071	2,567
Core Strategy requirement	3,700	500	790	2,000
Requirement minus commitments	1,529	467	-281	-567
Dwellings needed on new allocations to 2027	**1529**	**467**	**0**	**0**

PLAN Selby: Sites and Policies Local Plan

2.8.18 PLAN Selby is the Sites and Policies Local Plan document currently being developed by SDC. The document is designed to deliver the strategic vision outlined in the SDC Local Plan Core Strategy, and once adopted will form part of the Local Plan for the District in regard to planning applications.

2.8.19 PLAN Selby is anticipated to incorporate a number of site allocations to promote the growth needs of the District and site-specific designations and policies to manage other development proposals.

2.8.20 At this stage, the development of PLAN Selby has been halted pending further technical work on the potential development options for Tadcaster. SDC is also considering the implications of the revised National Planning Policy Framework published in July 2018. To date, SDC carried out a Pool of Sites consultation from 2nd October to 27th November 2017, as well as a further Additional Sites Consultation from 8th March to 19th April 2018.

2.8.21 SDC have since carried out a sifting exercise to identify those sites that may be suitable for inclusion in the draft PLAN Selby. It is recognised that not all of these sites may ultimately be adopted within the document, and while it is important to consider potential future travel patterns as part of the LCWIP, there should also be some measure of realism applied to any assumptions. SDC have provided direction on those sites where there is considered to be reasonable certainty of development in the near future; these sites will therefore form part of the analysis underpinning the emerging walking and cycling networks.

2.8.22 Note that the RAF Church Fenton site has been included, despite being outside of the defined study area for Sherburn-in-Elmet. Linkages to sustainable transport options in Sherburn and South Milford are considered to be important in bringing forward the site in a sustainable manner, and associated infrastructure is likely to also be of benefit to prospective cycle users in the village of Church Fenton, as well as more immediately in the vicinity of Sherburn itself. The location and size of the site thereby adds more importance to such a route than would otherwise be assigned based purely on movement to and from Church Fenton itself, warranting inclusion within the study.

2.8.23 Figure 2-28 to Figure 2-30 shows both the committed and allocated sites that will be considered as part of the LCWIP walking and cycling network development process in the context of the three key LCWIP study areas.

Figure 2-28 - PLAN Selby Emerging Site Allocations and Committed Development: Selby

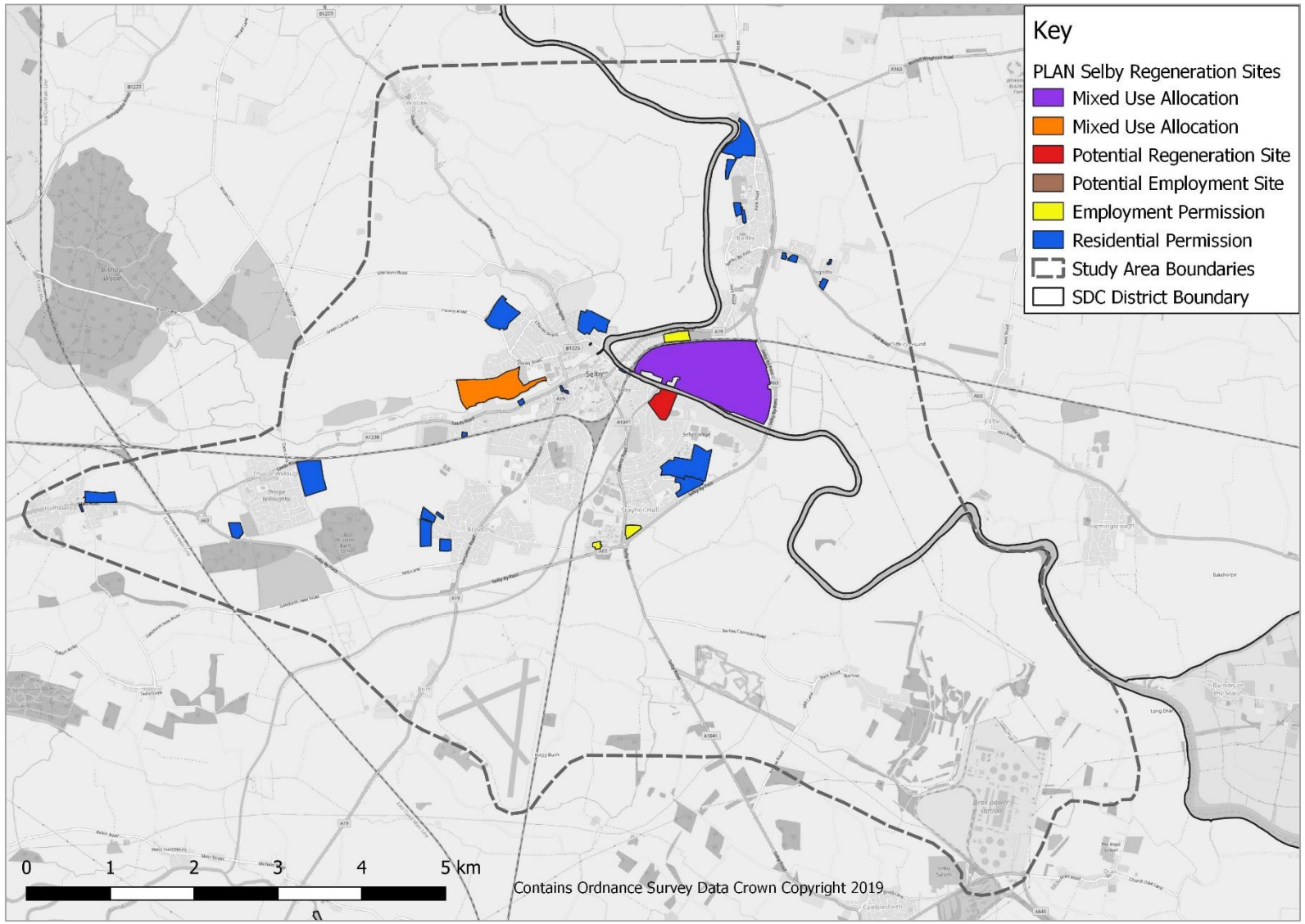


Figure 2-29 - PLAN Selby Emerging Site Allocations and Committed Development: Sherburn

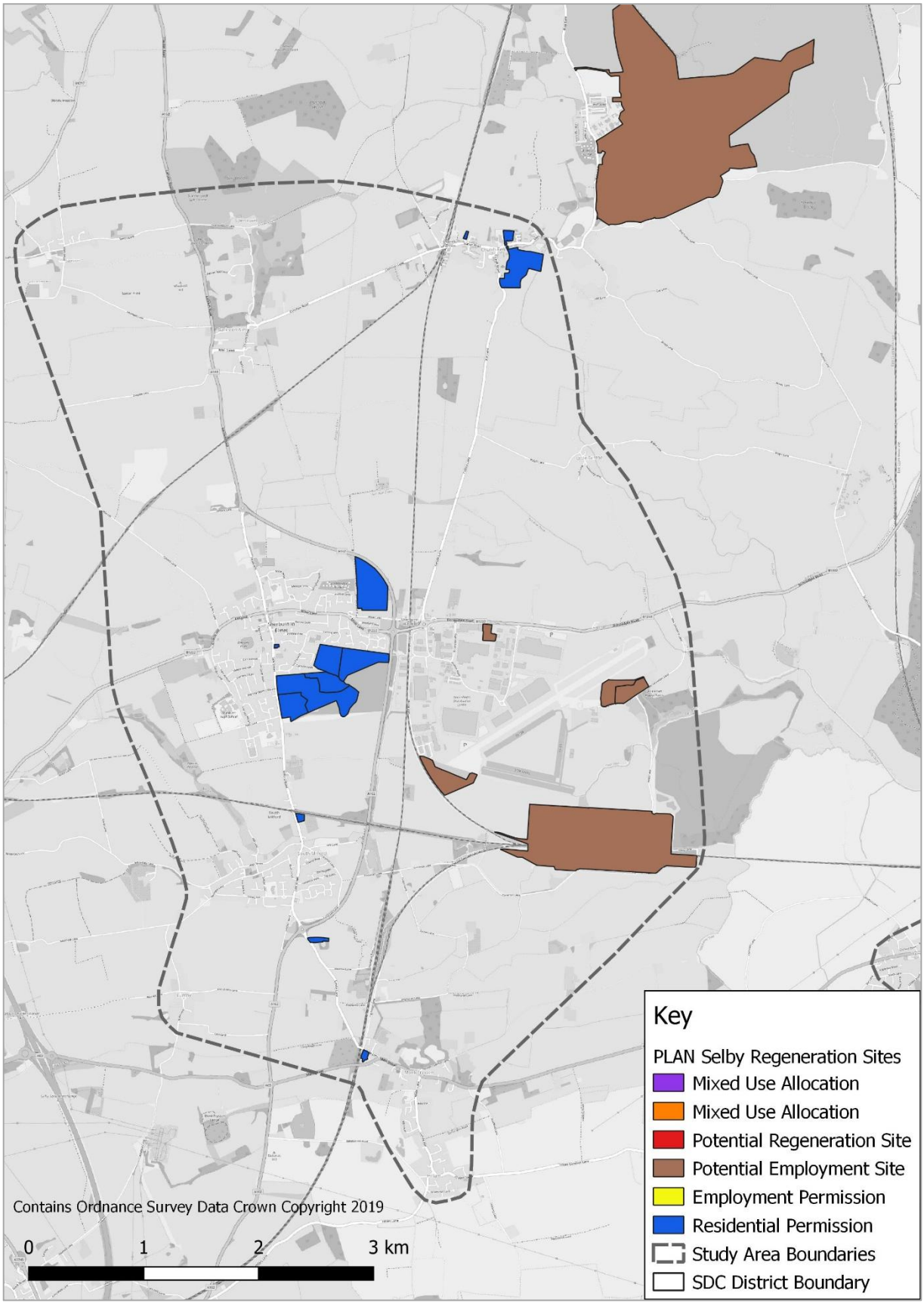
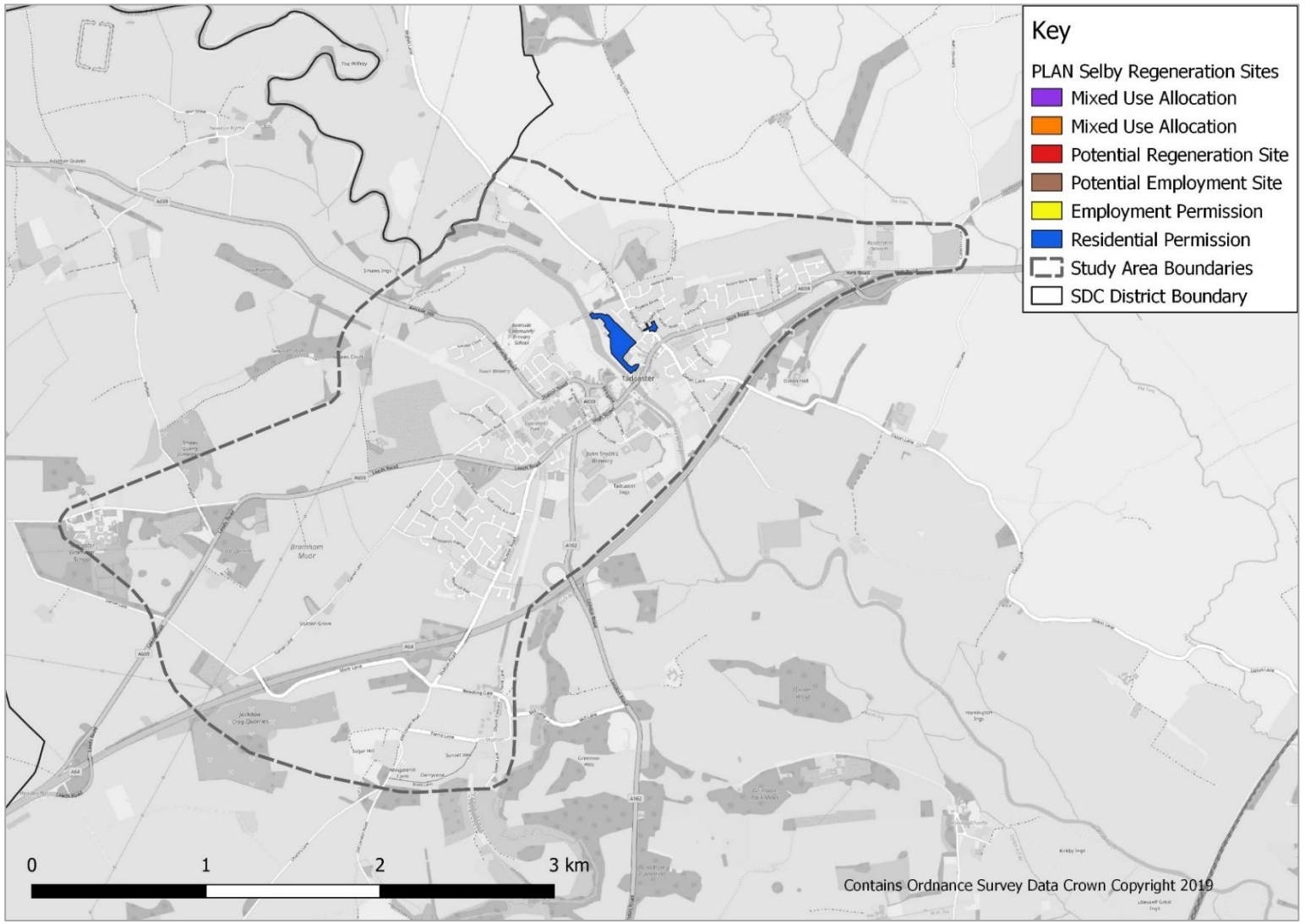


Figure 2-30 - PLAN Selby Emerging Site Allocations and Committed Development: Tadcaster



LCWIP Implications

- While development under construction or recently completed cannot now be influenced by the LCWIP, Section 106 planning obligations could potentially present an opportunity to provide new infrastructure.
- Relatedly, new developments present an opportunity to introduce behaviour change measures, often through Travel Plans, which could complement the proposed LCWIP networks.
- Olympia Park is a site of highly significant size, with the potential to generate a large number of new trips. The site has close linkages to the town centre, rail and bus stations, and provides for a mix of uses. The proposed location for vehicular access to and from the Olympia Park development site via the A63 creates an opportunity to provide much shorter journeys to key ODs by active modes of travel. Currently the River Ouse causes severance between the site and the town centre with only one crossing point to the west. The LCWIP provides the opportunity to propose additional crossing points in the vicinity of Olympia Park to overcome this severance whilst promoting active travel. New development sites provide an opportunity to incorporate high-quality active travel networks within the development, promoting travel by active modes for new employees / residents;
- Such sites can also contribute to off-site highways improvements to help create a cohesive active travel network in the District.
- Emerging DPD documents such as PLAN Selby or SPDs regarding specific sites, such as Olympia Park, offer an opportunity to embed the District's LCWIP into the wider policy framework.

TRANSPORT SCHEMES AND INITIATIVES

2.8.24 In addition to documented policy objectives, the Selby District LCWIP must also consider existing and aspirational transport schemes, particularly those focussed on walking, cycling, and right-of-way proposals. While there are currently no significant committed infrastructure schemes scheduled, there are a number of schemes and initiatives of note within the District - which are either programmed or are currently being investigated and option tested - that could have implications on the development of the LCWIP. This section of the report presents an overview of a number of relevant proposals within the study area.

PLAN Selby transport evidence base

2.8.25 SDC, in collaboration with WSP, are currently progressing a transport evidence base to support the adoption of PLAN Selby. This evidence is required in order to show that the Authority's development aspirations can come forward in a sustainable manner and identify any mitigation measures that may be required in order to enable this. This evidence is anticipated to include detailed modelling work and may include significant infrastructure schemes. This study could offer an opportunity to investigate new road layouts or junction designs along LCWIP routes which incorporate high quality active travel infrastructure, while the modelling underpinning the study could be used for further analysis or options testing.

Selby Station Masterplan

2.8.26 Arup have been commissioned by SDC to prepare a masterplan for an area of approximately 20ha, centred on Selby Rail Station. The study area is referred to in the report as Selby Station District and extends to the River Ouse to the north, the canal to the east, Bawtry Road to the south and Selby Market Square to the west. The rail station and nearby bus station are identified as key ODs in the emerging LCWIP evidence base, while the arterial routes around the station, such as Bawtry Road, Ousegate, and the A19 are likely to come forward as high priority routes given their proximity to Selby town centre and the largest clusters of ODs—the emerging Selby Station Masterplan is therefore very likely to have significant implications on the emerging Selby LCWIP.

2.8.27 The Masterplan presents 5 'Key Moves' in order to realise the objectives of the Station District Masterplan, which the LCWIP proposals could potential contribute towards. These are:

- Functional multi-modal interchange;
- Station area regeneration;
- Connections to town centre;
- Enhanced waterfront; and
- Links to wider communities.

2.8.28 Each 'Key Move' presents a variety of suggestions for new pedestrian linkages along potential desire lines. The emerging LCWIP proposals have the potential to support or further define these linkages, and the Masterplan proposals will be considered when determining the potential for new routes.

Paths for Everyone (Sustrans)

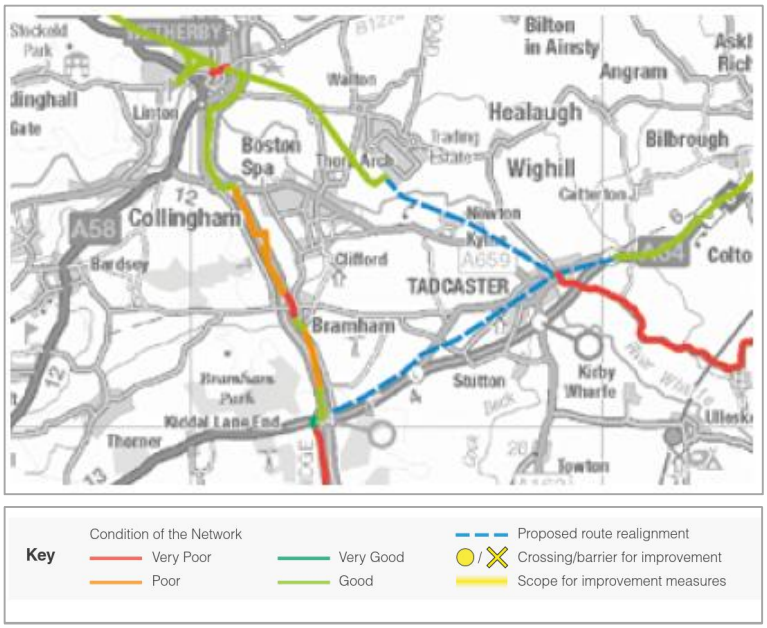
2.8.29 Sustrans published Paths for Everyone in November 2018, a comprehensive review of the National Cycle Network undertaken over a two-year period. The report acknowledges that, while extensive, the quality of the NCN can vary in places, and that it can be improved in order to make the network safer and more accessible for all users.

2.8.30 As part of the review, Sustrans have produced seven physical review and action plans for each of the Sustrans geographical regions. Each plan presents a number of activation projects, chosen to reflect a range of project types, geographical diversity and deliverability.

2.8.31 NCN Route 665 is included within the 'North of England' action plan. The report identifies a demand for a safe and traffic-free route between Wetherby and Tadcaster via Thorpe Arch Estate. The existing NCN Route 665, which could potentially serve this demand, is severed between Tadcaster and Thorpe Arch, with no existing possible route. The proposals include the creation of a new link to the newly refurbished listed viaduct over the River Wharf and onward greenway alongside a new housing development at Newton Kyme.

2.8.32 Figure 2-31 is an extract from the report, showing the existing NCN route 665 and the proposed realignment and 'missing link' between Tadcaster and Thorpe Arch.

Figure 2-31 - Existing and proposed NCN routes around Tadcaster



LCWIP Implications

- Most of the studies referenced commenced before the inception of the LCWIP, and do not consider the implications on the emerging walking and cycling networks. However, many of the studies do consider active travel links, and understand the need to connect people to places via the most desirable route. Where appropriate, the findings of these studies and the key routes identified have influenced the development of the LCWIP.
- Conversely, where these studies are ongoing, there is an opportunity to identify how any resulting proposals can contribute towards the creation of the walking and cycling networks. This could be as innocuous as considering access to a specific site from the network, or could be how a significant scheme could re-route traffic and reallocate highway space for cycle users.

FORECASTING GROWTH IN CYCLE TRIPS

Propensity to Cycle Tool (PCT)

2.8.33 The Propensity to Cycle Tool (PCT) is a web-based tool that can assist with understanding potential demand for cycling across a study area, under a variety of forecast scenarios. The tool can aid in identifying the most promising routes for potential cycle growth and inform LCWIP network development.

2.8.34 The PCT project was primarily funded by the Department for Transport (DfT), with the Welsh government funding an extension to Wales. It was developed by an academic-led team involving the universities of Cambridge, Leeds and Westminster. The PCT helps to provide an evidence base for cycle planning and can be used to explore cycling potential at different geographical scales – from a county to a potential route corridor.

2.8.35 For research into cycling potential (and the resulting models) to be useful for local transport planners, their spatial scale must coincide with those over which the planning process has some control. For this reason, practitioners and researchers focus on scale as the primary way of categorising research into cycling potential.

2.8.36 At the route-based scale, the design of measures uses origin-destination data which can be used to create ‘desire lines’ and (using route allocation) estimates of existing and potential demand at each point on the road network.

How the PCT Works

Baseline Data

2.8.37 Central to the PCT approach is origin-destination (OD) data recording the travel flow between administrative zones. Combined with geographical data identifying the population-weighted centroid of each zones, these OD pairs can be represented as straight ‘desire lines’ or as routes allocated to the transport network.

2.8.38 The OD pairs are derived from 2011 census data using data obtained from the following questions:

- ‘What is the address of your main workplace’? and
- ‘How do you usually travel to work’?

2.8.39 This is enhanced through gender composition data for each OD pair, data on background mortality at an area level, and OD pair level data on route distance and hilliness.

Forecasting Growth in Cycling

2.8.40 Four scenarios were developed to present a range of potential cycling future scenarios. These scenarios consider the removal of different infrastructural, cultural and technological barriers that currently prevent cycling being the natural mode of choice for trips of short to medium distances. The PTC guidance stresses that these are not predictions of the future, but snapshots indicating how the spatial distribution of cycling may shift as cycling grows based on current travel patterns.

2.8.41 The four scenarios are:

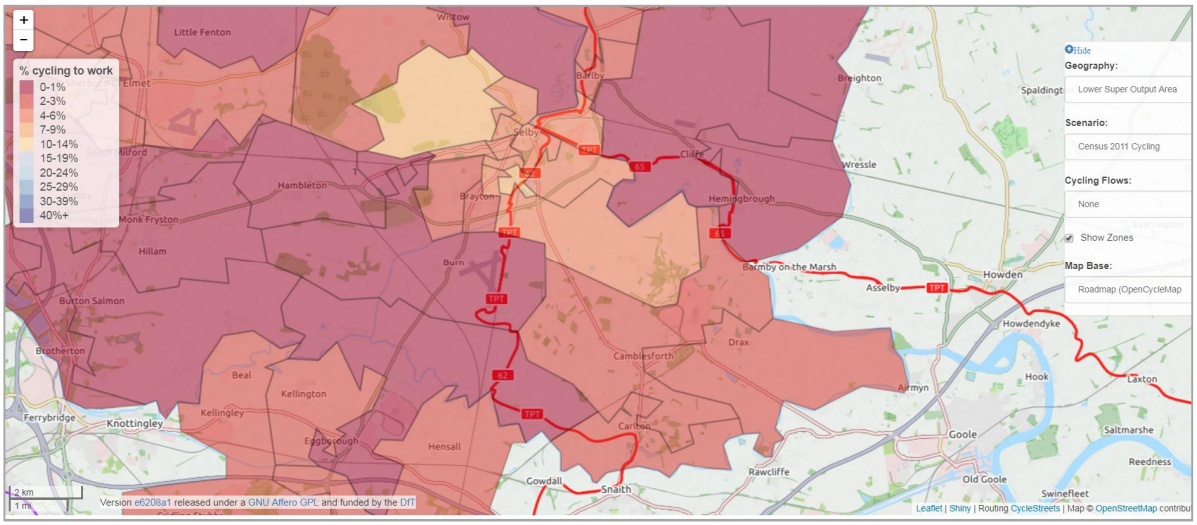
- Government Target: a doubling of cycle trip stages by 2025. Note that this is not uniform, with a greater increase in areas with many existing short, flat trips but a low current level of cycling.
- Gender Equality: this scenario assumes female cycle user numbers increase to equal levels of male cycle users, with the greatest impact where cycling is most gender unequal.

- Go Dutch: this scenario considers the increase in cycle users if England had the same infrastructure and cycling culture as the Netherlands, but retained the hilliness and commuter distance patterns. It applies 'Dutch scaling factors' calculated through analysis of British and Dutch National Travel surveys. These include one fixed 'main effect' parameter, plus a distance-based factor, as the Dutch effect is greater on shorter trips. Note this does not use current levels of cycling, rather considering the distance and hilliness of existing OD pairs.
- Ebikes: this scenario is an extension of the Dutch scenario; The Ebike scaling factors were generated through analysis of the English, Dutch and Swiss National Travel Surveys, which estimated how much more likely it was that a given commute trip would be cycled by Ebike owners versus cyclists in general.

PCT Outputs - Selby

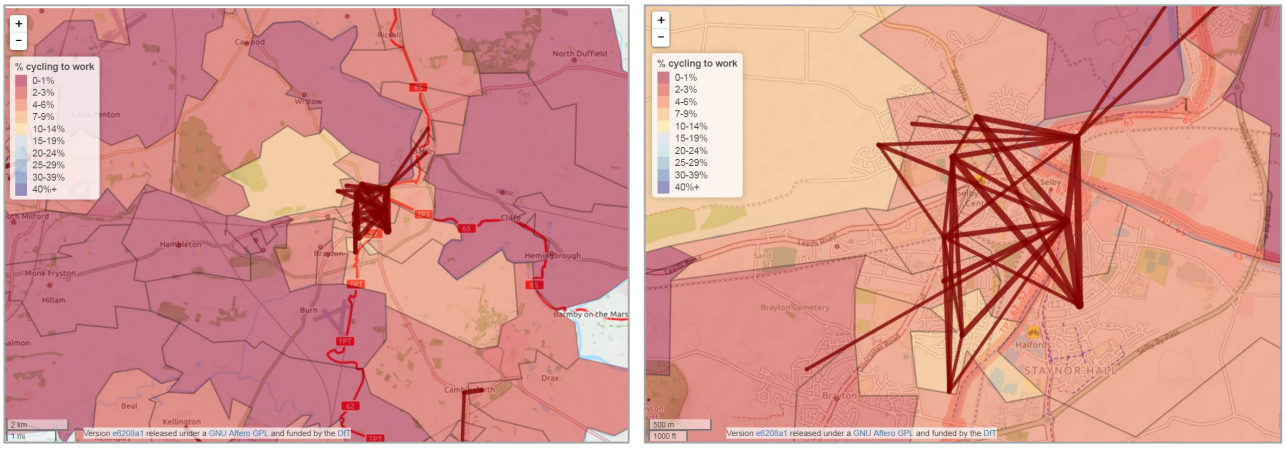
2.8.42 The basic PCT interface displays the existing levels of cycling to work, based on 2011 census data. Figure 2-32 illustrates this scenario at the LSOA level.

Figure 2-32 - PCT Output: % of Population Cycling to Work, by LSOA (2011 Census)



2.8.43 The outputs show that existing levels of cycling between LSOA OD pairs are relatively high in the urban areas of Selby, with up to 10% - 14% of journeys to work undertaken by bike in some areas.

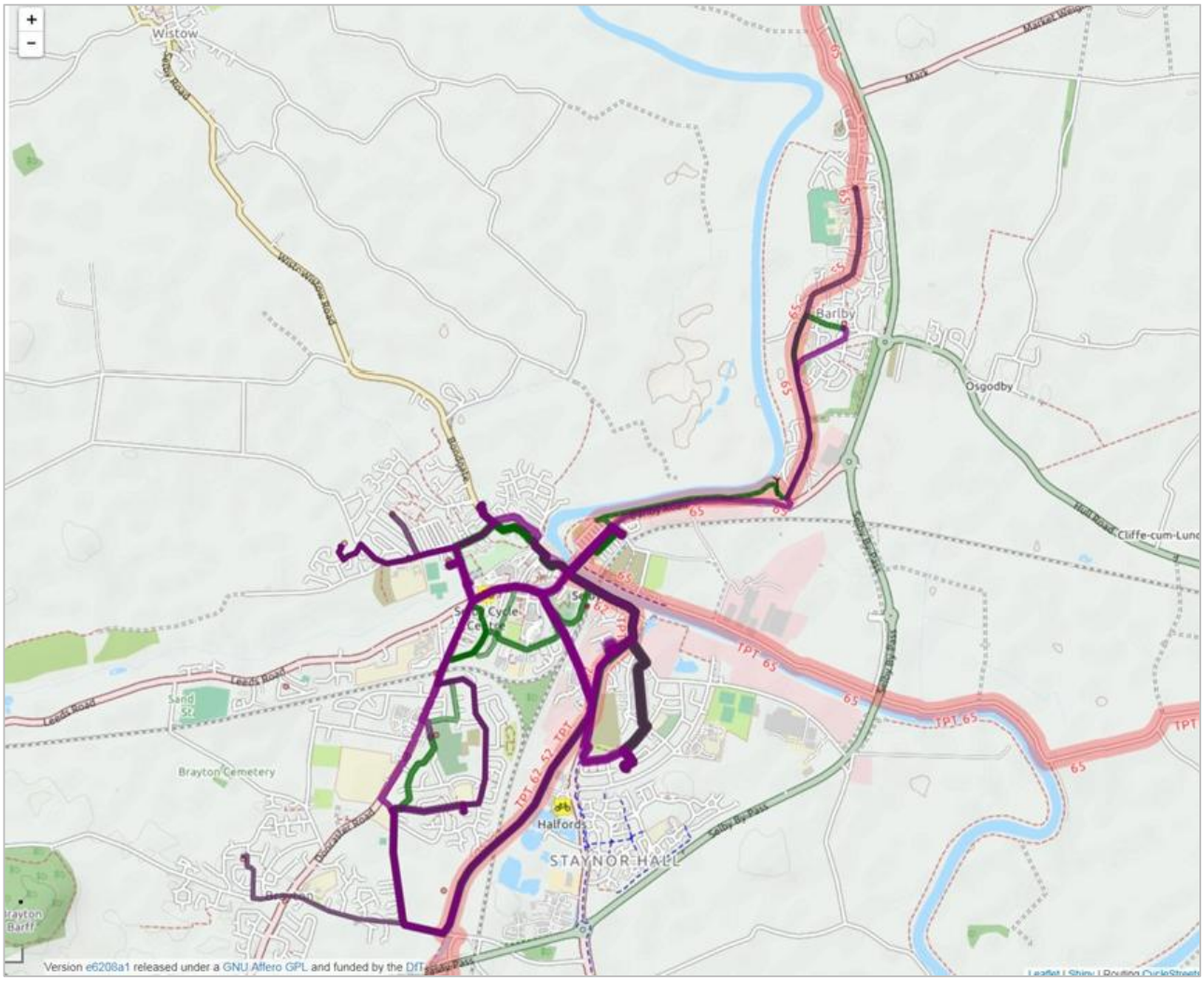
Figure 2-33 - PCT Output: Top 30 Cycle Flows between OD Pairs (2011 Census)



2.8.44 However, when considering the top 30 OD pairs, the majority of the existing travel to work by cycle occurs in the urban area of Selby itself, with limited existing levels of cycling from the outlying Local Service Centres; only two connections from Barlby are in the top 30 OD pairs, and none from Brayton or Thorpe Willoughby.

2.8.45 Figure 2-34 demonstrates how OD pair movements are assigned to the most likely routes: the purple lines represent the fastest routes, while those in green show quieter routes with less vehicular traffic. These routes are generated by CycleStreets.net, so do not necessarily represent the paths that cyclists actually take, rather the route choice models are based on GPS data developed specifically for this purpose.

Figure 2-34 - PCT Output: Top 30 Cycle Flows between OD Pairs, Mapped to Fast and Quiet Routes (2011 Census)

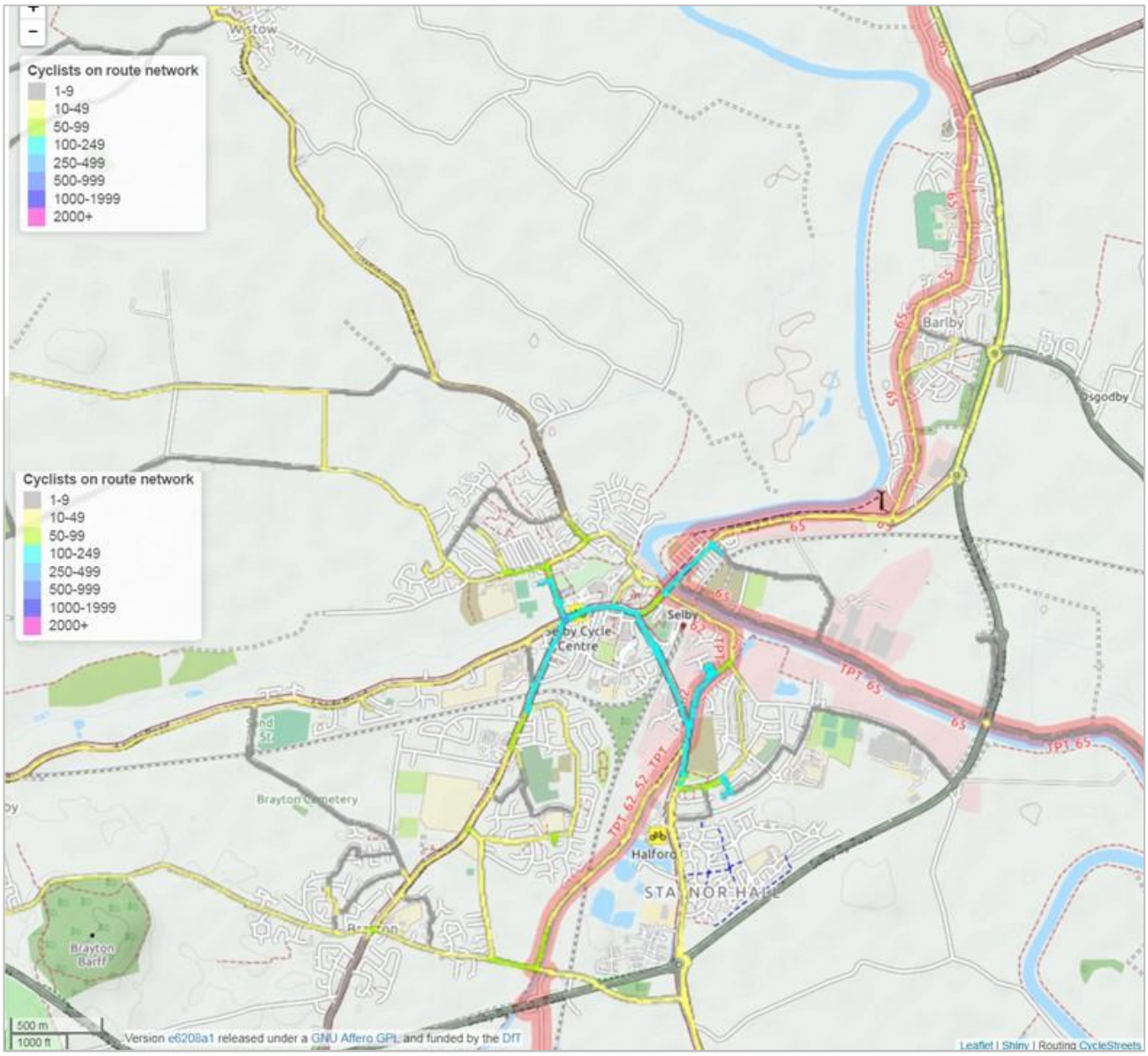


2.8.46 These routes indicate significant overlap between the fastest and quietest routes, particularly along the A19 through the town centre and to Barlby, as well as along Bawtry Road, including the existing rail bridge. The route of the Trans Pennine Trail along the canal also forms a key link across the southern areas of the town.

2.8.47 It is also important to note that the tool only considers journey to work data, so excludes all other journey purposes, such as recreational cycling, tourist demand, and movements to school.

2.8.48 Figure 2-35 allocates these routes with the Route Network layer, aggregating the 'fastest route' flows together in order to consider the likely most cycled existing routes on the network.

Figure 2-35 - PCT Output: Total Cyclists on Route Network (2011 Census)



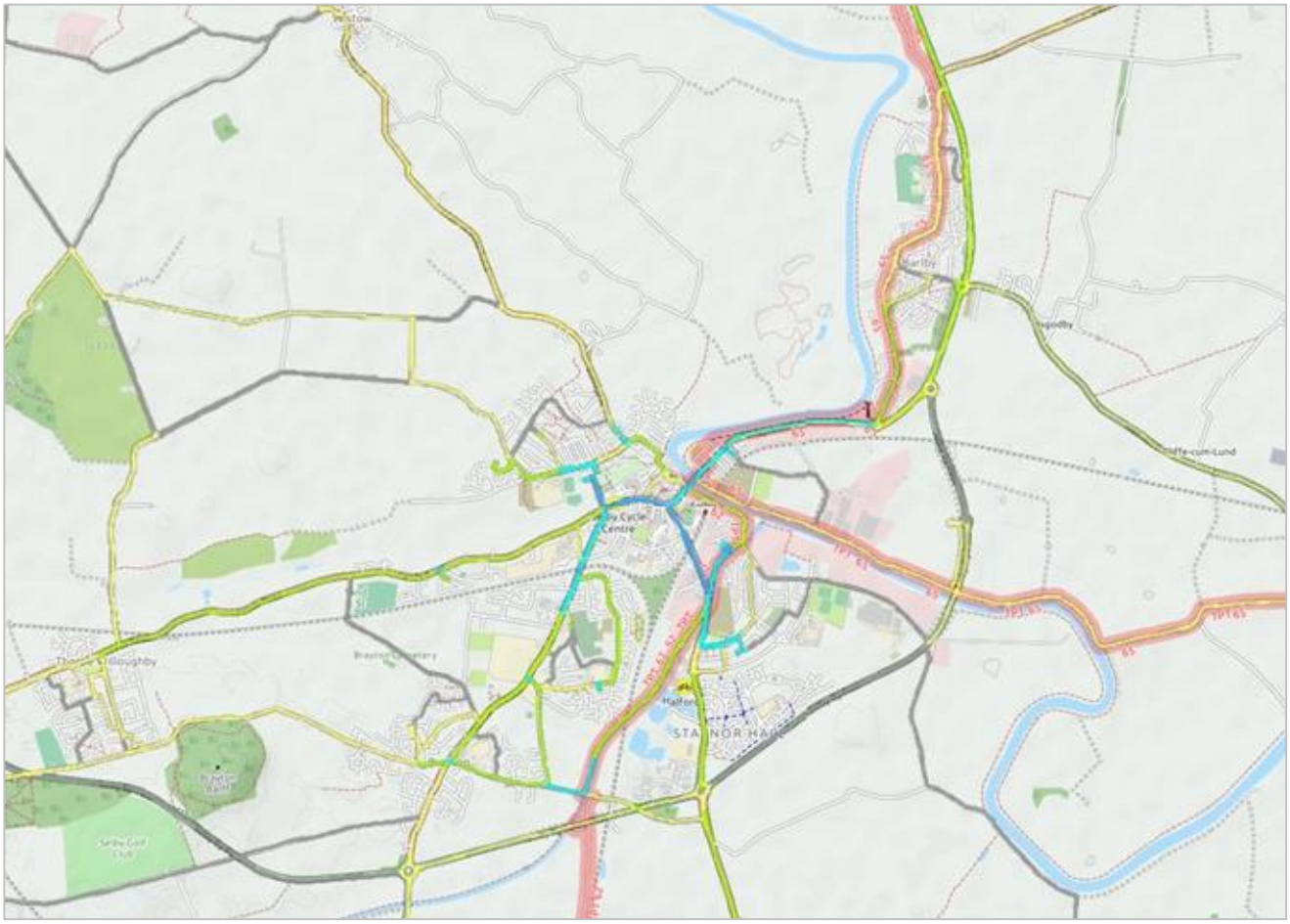
2.8.49 Notwithstanding the limitations of the software, the map of existing conditions shows very few cyclists, with only the core central area around Selby town centre and the rail station registering more than 100 cyclists under existing conditions.

Future Scenarios – Government Target

2.8.50 The PCT also allows the identification of key routes under the various future scenarios, as described above. Figure 2-36 shows the potential route network under the government target scenario. These figures show an increase in cycling around the urban centre of Selby, as well as higher cycle flows

out towards Brayton and Thorpe Willowby. The importance of the A19 (Gowthorpe / The Crescent) through the town centre and Park Street / Bawtry Road are highlighted, with these central routes potentially accommodating 250-499 cyclists per day as part of a commute. These routes are likely to represent the convergence points for journeys from the outlying residential areas, as well as potentially rail / cycle multi-modal journeys.

Figure 2-36 - PCT Output: Forecast Cycle Flows Mapped to Route Network, Based on Government Target Scenario

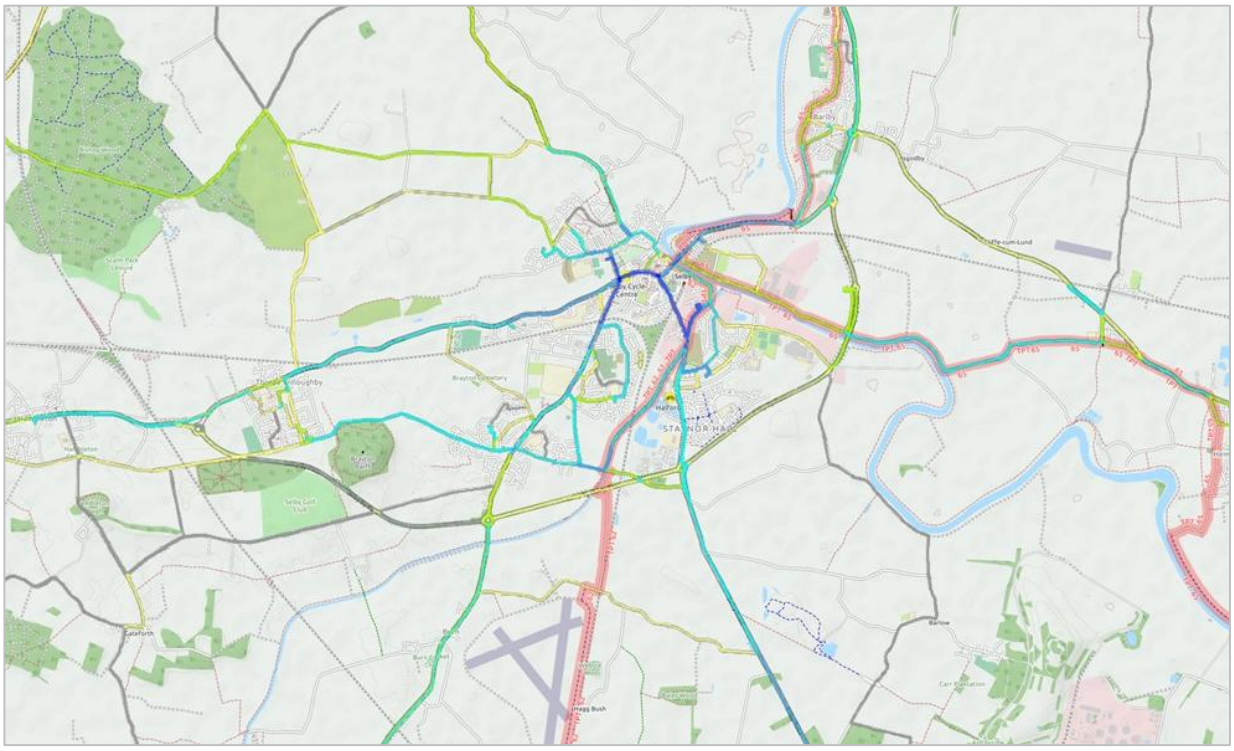


Future Scenarios – Go Dutch

2.8.51 The 'Go Dutch' scenario is considered more aspirational than the government target, presenting a potential scenario of cycling demand in the future if 'Dutch style' infrastructure was available, as well as a similar attitude toward cycling. Figure 2-37 shows the results of this scenario on the potential cycling network, highlighting areas of significant additional demand.

2.8.52 The figure shows increased demand through residential areas as more people switch modes, as well as the potential for cycle journeys from further afield, such as towards Drax and Hambleton.

Figure 2-37 - PCT Output: Forecast Cycle Flows Mapped to Route Network, Based on Go Dutch Scenario



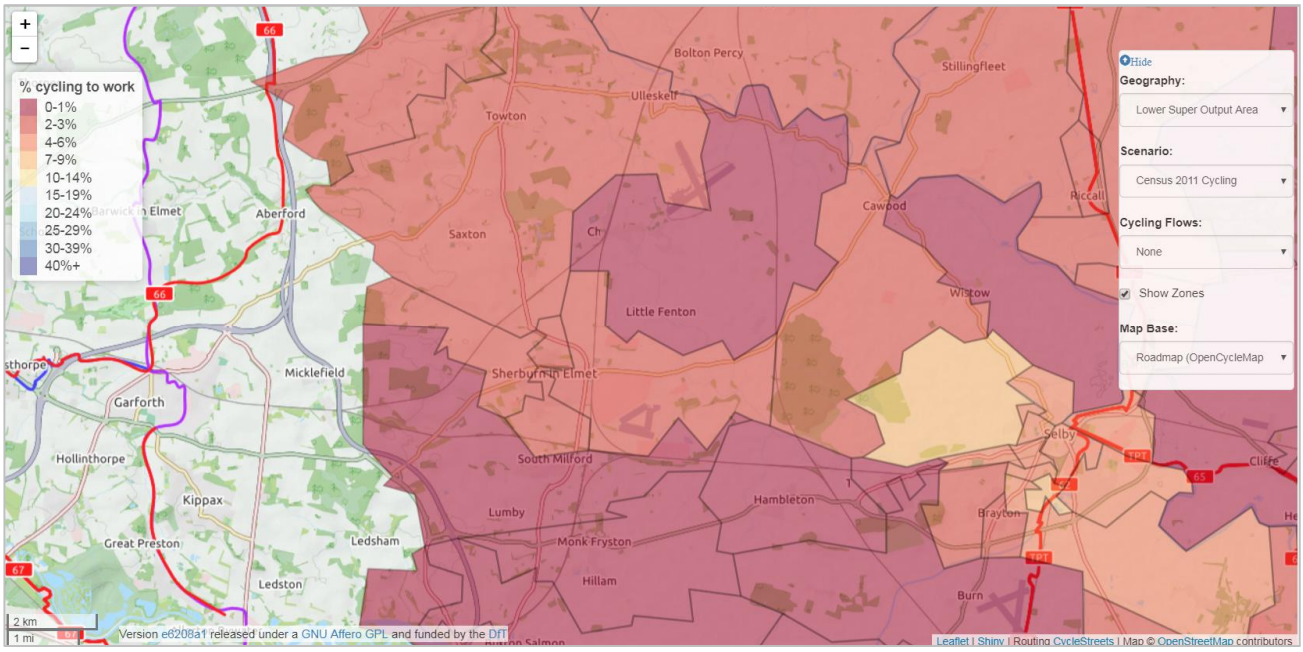
LCWIP Implications

- The PCT outputs evidence existing cycle movements are concentrated on the urban area of Selby, as well as between Selby and Barlby. The central vehicular corridors around the town centre of Selby sees the highest number of existing cycle movements as part of a commute.
- Future scenarios reinforce the role of these central routes, while extending the potential for cycling out towards the Local Services Centres of Thorpe Willowby and Brayton, as well as towards Drax and Hambleton.
- The Trans Pennine Trail along the canal is also considered a key route when considering connectivity across the southern areas of Selby.

PCT Outputs – Sherburn-in-Elmet

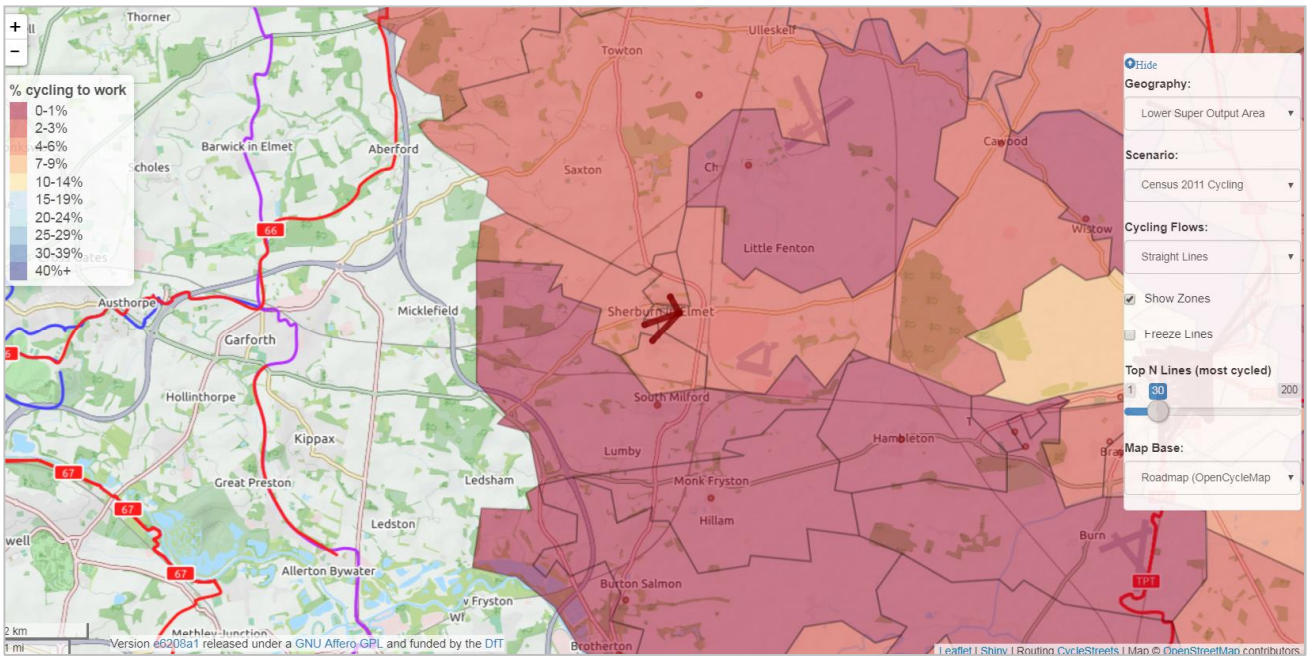
2.8.53 Figure 2-38 illustrates the existing levels of cycling to work (2011 census) at the LSOA level in relation to Sherburn-in-Elmet.

Figure 2-38 - PCT Output: % of Population Cycling to Work, by LSOA (2011 Census)



2.8.54 The outputs show that existing levels of cycling between LSOA OD pairs are lower than in the town of Selby, at around 2% - 3% in Sherburn-in-Elmet itself, and 0% - 1% in the surrounding villages.

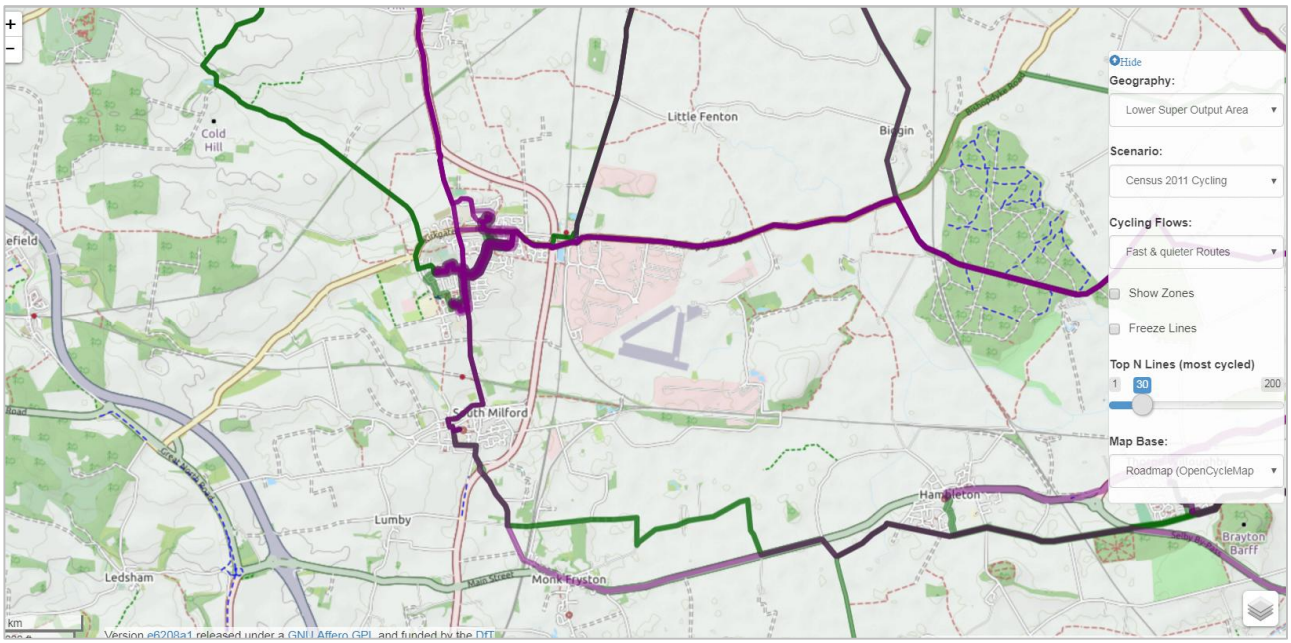
Figure 2-39 - PCT Output: Top 30 Cycle Flows between OD Pairs (2011 Census)



2.8.55 Considering the top 30 OD pairs using the tool becomes difficult given the small scale of the area (with only a few LSOAs covering the entire of the village) and the very limited numbers of existing cycle movements. Looking strategically, there are some movements between the LSOAs in Sherburn-in-Elmet, but the remaining highest movements are all internal to their specific area, representing local trips to work in the rural areas.

2.8.56 Figure 2-40 displays these links on the most likely routes, with purple lines represent the fastest routes and those in green showing quieter routes with less vehicular traffic.

Figure 2-40 - PCT Output: Top 30 Cycle Flows between OD Pairs, mapped to Fast and Quiet Routes (2011 Census)



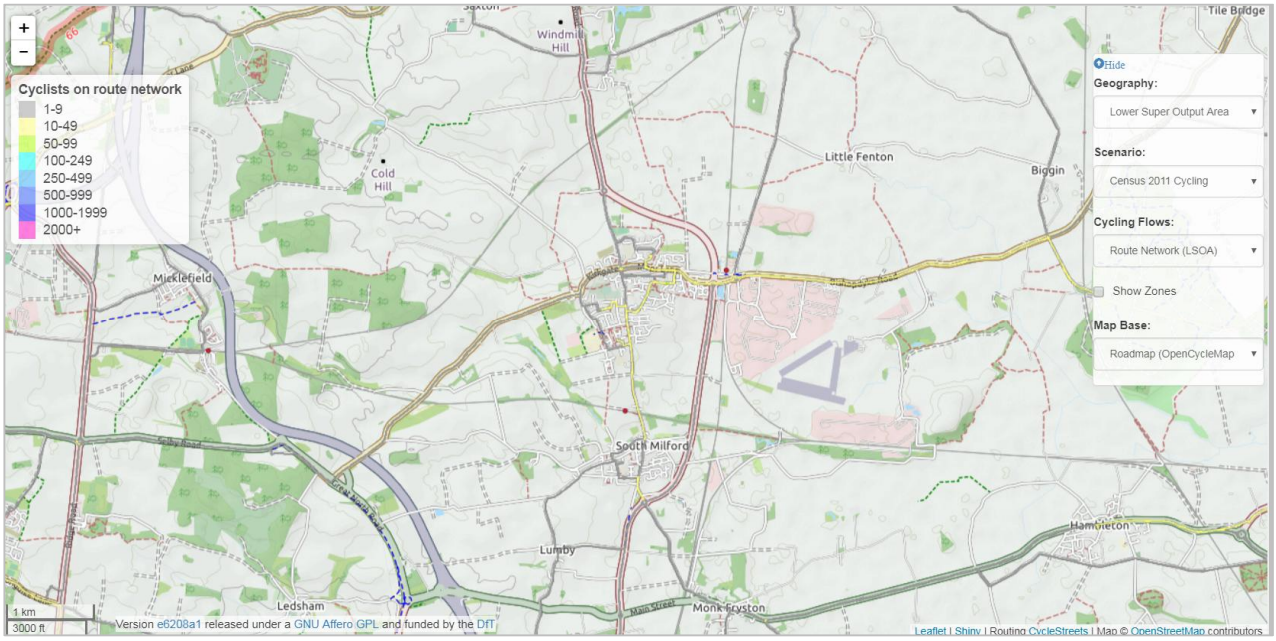
2.8.57 Note that at a smaller scale, the very limited numbers of existing cyclists mean that to show the top 30 pairs, the tool also displays journeys from further afield, although an analysis of the data shows that many of these routes only consist of a single movement by cycle.

2.8.58 The unusual layout of Sherburn-in-Elmet, with a large employment area to the east and mixed-use area to the west bisected by the A612, limits the number of routes in the area, creating a few strong desire lines. The Fairway is highlighted as a key route across Sherburn towards the employment area in the east, as well as Milford Road, connecting the village of Milford to shops, employment and facilities in Sherburn.

2.8.59 A number of other local and strategic roads to outlying villages are also highlighted, although these currently cater for extremely low numbers of cyclists.

2.8.60 Figure 2-41 allocates these routes with the Route Network layer, aggregating the 'fastest route' flows together in order to consider the likely most cycled existing routes on the network.

Figure 2-41 - PCT Output: Total Cyclists on Route Network (2011 Census)

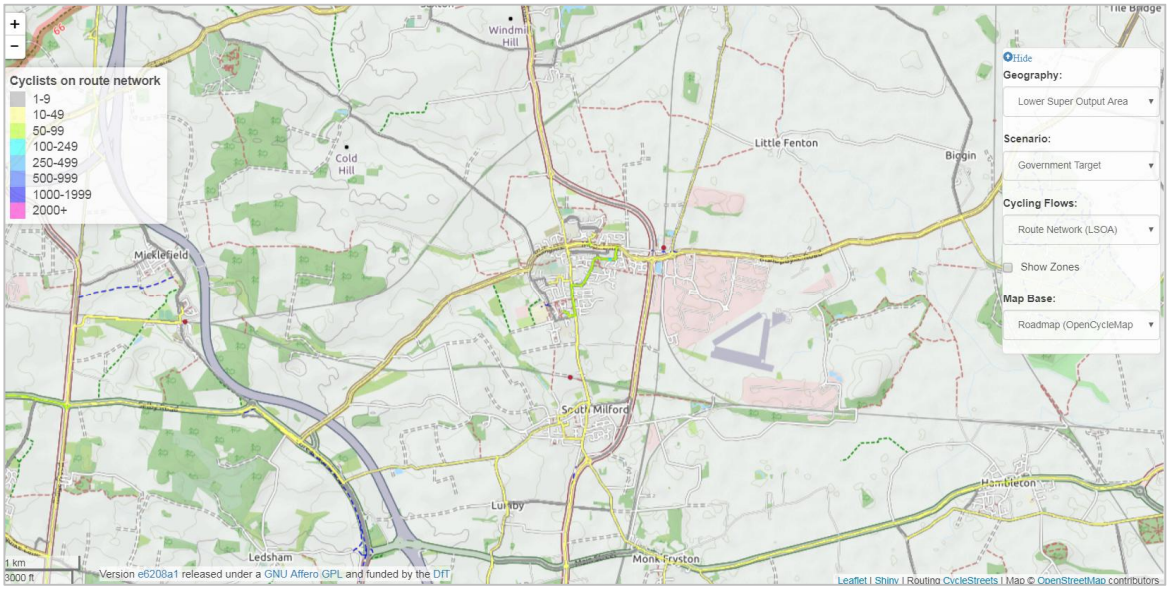


2.8.61 The map of existing conditions shows very few cyclists, evidencing the previous points. Only Milford Road, Moor Lane and the Fairway show more than 10 cyclists per day for commuting purposes, with the majority of the top 30 routes only catering for between 1 and 9 cycle users.

Future Scenarios – Government Target

2.8.62 Figure 2-42 shows the potential route network under the government target scenario.

Figure 2-42 - PCT Output: Forecast Cycle Flows mapped to Route Network, based on Government Target Scenario



2.8.63 These figures show an increase in cycling levels between Sherburn and the outlying villages, although these routes are not expected to exceed 49 users. The importance of The Fairway as a key route for cycling is evident, as the only route predicted to exceed 50 cycle users.

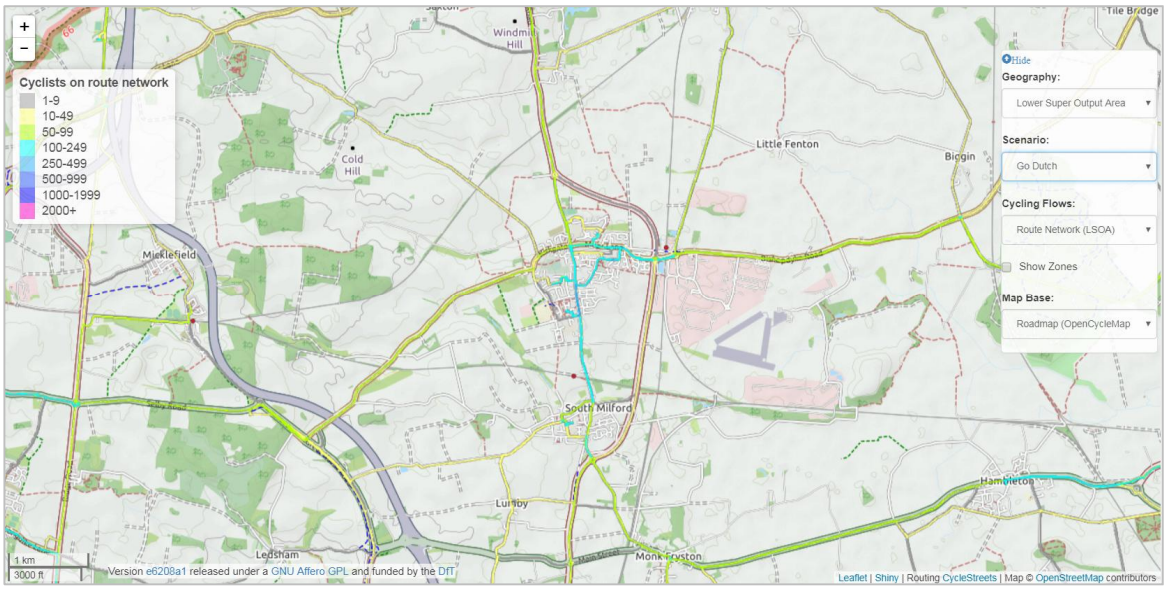
Future Scenarios – Go Dutch

2.8.64 The 'Go Dutch' scenario is considered more aspirational than the government target, presenting a potential scenario of cycling demand in the future if 'Dutch style' infrastructure was available, as well as a similar attitude toward cycling. Figure 2-43 shows the results of this scenario on the potential cycling network, highlighting areas of significant additional demand.

2.8.65 The figure indicates the potential for a key strategic link between South Milford and the centre of Sherburn, extending to the Sherburn industrial estate. Use of The Fairway also proportionally increases under this scenario, providing a quieter route to Sherburn Industrial Estate than via the constrained Kirkgate / Low Street signalised junction.

2.8.66 There are also a number of short spurs into the various housing estates.

Figure 2-43 - PCT Output: Forecast Cycle Flows mapped to Route Network, based on Go Dutch Scenario



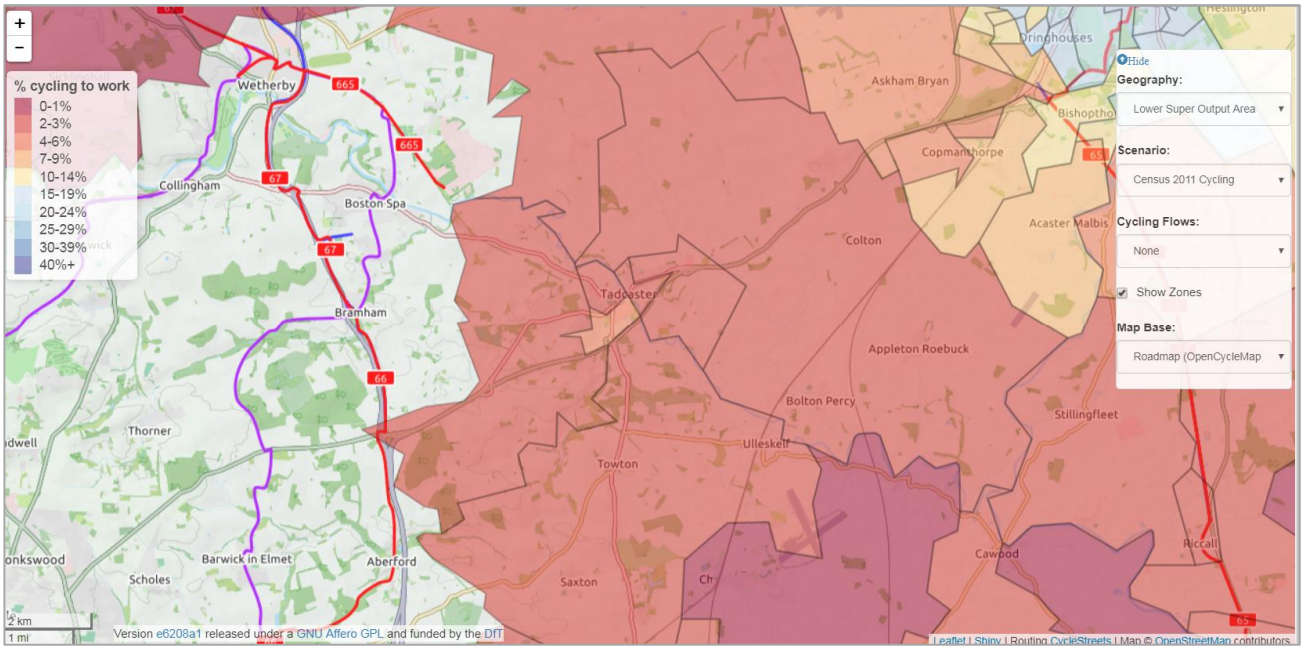
LCWIP Implications

- The PCT shows very limited existing travel by cycle, and limited usage in future even under the aspirational 'Go Dutch' scenario.
- While there are limitations to the software, the results will influence the development of the walking and cycling network maps, as well as when considering priority corridors representing 'quick wins' and high value for money.
- Nevertheless, there is a clear potential suppressed demand for a central strategic corridor route linking South Milford to both Sherburn centre and the Sherburn industrial estate.

PCT Outputs - Tadcaster

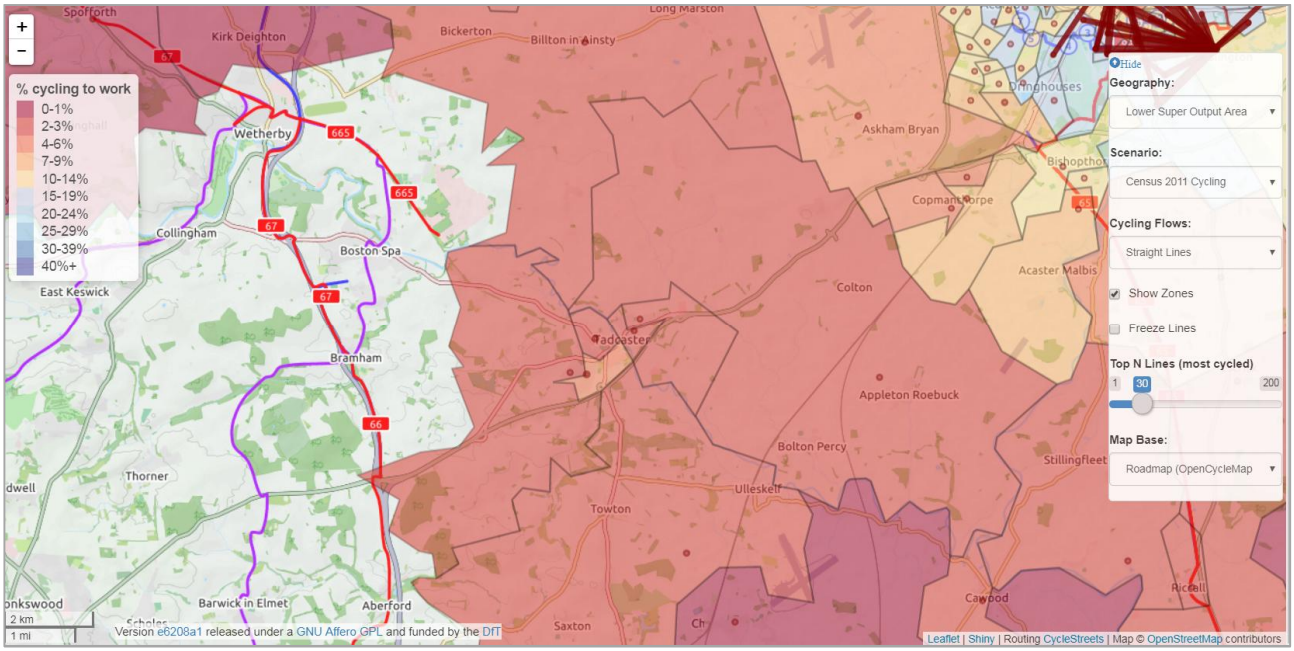
2.8.67 Figure 2-44 illustrates the existing levels of cycling to work (2011 census) at the LSOA level in relation to Tadcaster.

Figure 2-44 - PCT Output: % of Population Cycling to Work, by LSOA (2011 Census)



2.8.68 The outputs show a single LSOA south of Tadcaster records that 4% - 6% of journeys to work are undertaken by bicycle, while the majority of the area has relatively low existing levels of cycling, at approximately 2% - 3%. While less than in some areas of Selby, these figures are still considerably higher than those reported in Sherburn.

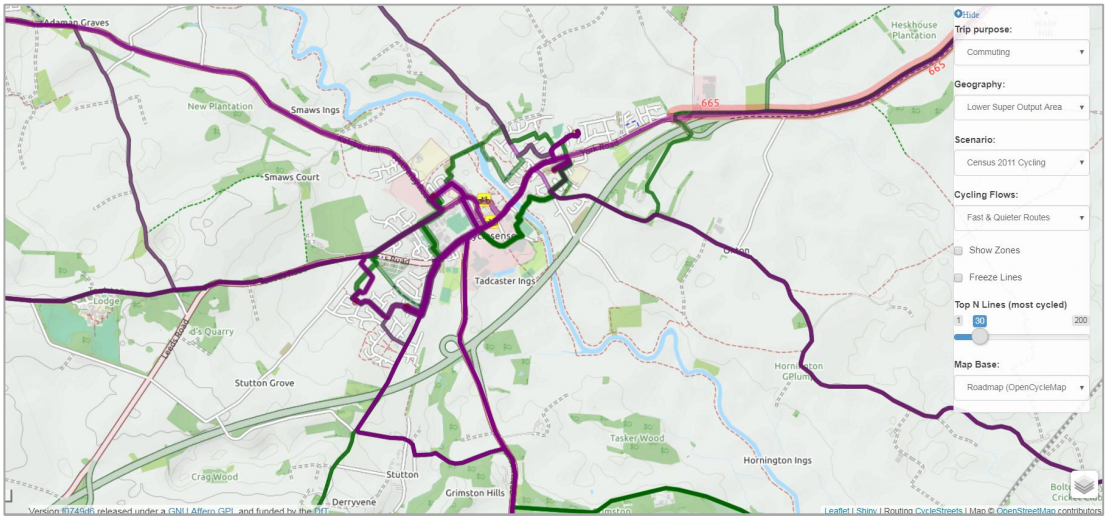
Figure 2-45 - PCT Output: Top 30 Cycle Flows between OD Pairs (2011 Census)



2.8.69 An analysis of the top 30 OD pairs evidences the limited potential for movement by cycle outside of Tadcaster (for commuting purposes), with the top 30 OD pairs in the village and the surrounding areas representing internal movements

2.8.70 Figure 2-46 displays these links on the most likely routes, with purple lines represent the fastest routes and those in green showing quieter routes with less vehicular traffic.

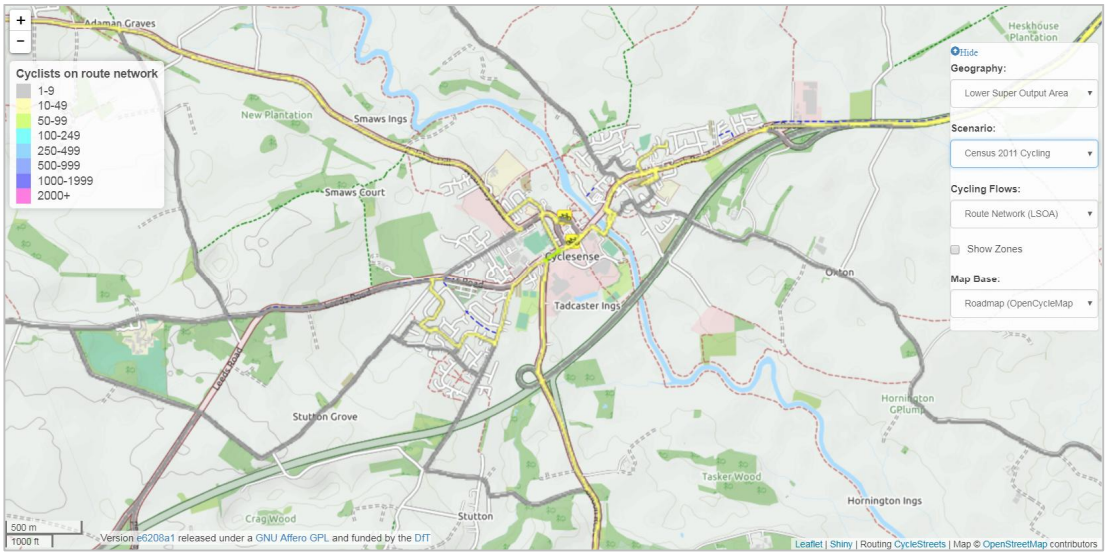
Figure 2-46 - PCT Output: Top 30 Cycle Flows between OD Pairs, mapped to Fast and Quiet Routes (2011 Census)



2.8.71 These routes show overlap between the fastest and quietest routes along key radial routes into Tadcaster, as well as along the A659 through the centre of the town, likely due to the limited existing route choice. However, there are a few 'quiet' routes identified that could provide alternative routes with minimal additional infrastructure, including Sonny's Bridge and Tadcaster viaduct.

2.8.72 Figure 2-47 allocates these routes with the Route Network layer, aggregating the 'fastest route' flows together in order to consider the likely most cycled existing routes on the network.

Figure 2-47 - PCT Output: Total Cyclists on Route Network (2011 Census)

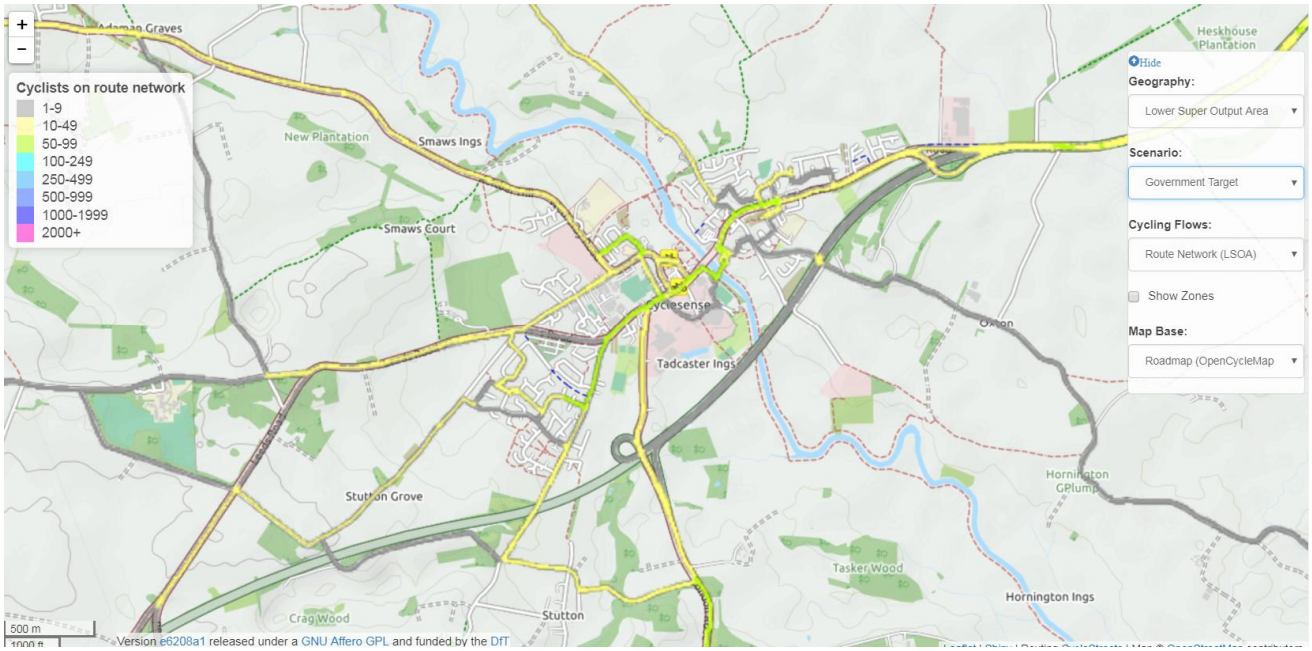


2.8.73 As with the other LCWIP study areas, there are few existing routes considered to accommodate for 10 or more cycle users on a regular basis. These include arterial routes along the A162 (toward Sherburn via Townton), and the A659 from the north to the east. A circuitous route extends into the residential areas to the west, with smaller spurs to the east of the urban area.

Future Scenarios – Government Target

2.8.74 The PCT also allows the identification of key routes under the various future scenarios, as described above. Figure 2-48 shows the potential route network under the government target scenario for North Yorkshire. These figures show an increase in cycling around the urban centre of Tadcaster, with cycle flows increasing beyond 50 cycle users per day along Stutton Road / A659, connecting the two primary housing estates across the town centre.

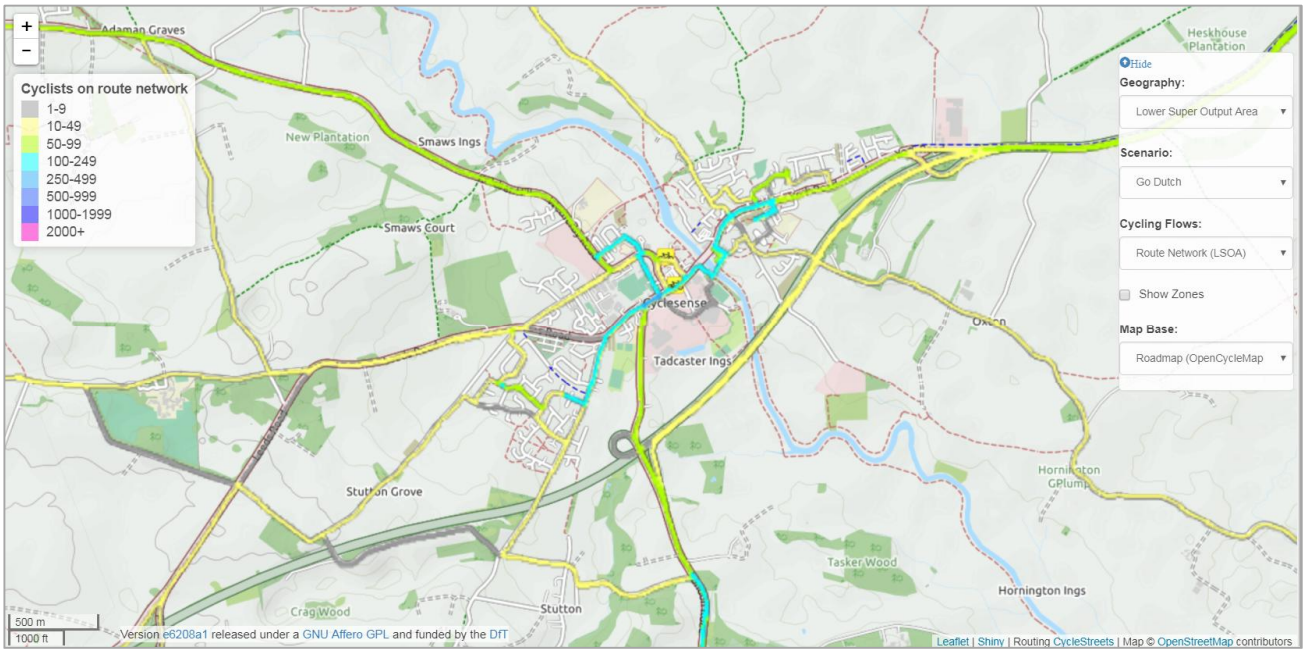
Figure 2-48 - PCT Output: Forecast Cycle Flows Mapped to Route Network, Based on Government Target Scenario



Future Scenarios – Go Dutch

2.8.75 The 'Go Dutch' scenario is considered more aspirational than the government target, presenting a potential scenario of cycling demand in the future if 'Dutch style' infrastructure was available, as well as a similar attitude toward cycling. Figure 2-49 show the results of this scenario on the potential cycling network, highlighting areas of significant additional demand.

Figure 2-49 - PCT Output: Forecast Cycle Flows Mapped to Route Network, Based on Go Dutch Scenario



2.8.76 The tool indicates the potential for significantly more trips along the central Stutton Road / A659 corridor, with the potential number of daily cycle users rising to over 100. The number of cycle users along various rural routes is indicated to also increase, although numbers remain low considering the aspirational nature of the scenario.

LCWIP Implications

- The PCT shows limited existing travel by cycle, while future projections remain limited in many areas, with only a few key corridors identified.
- Despite this, the compact nature of Tadcaster lends itself well to a few strategic corridors that facilitate movements across the urban area, collecting trips from quieter residential streets and providing dedicated infrastructure to key destinations.

Applying the PCT

2.8.77 It is important to understand the limitations of the PCT. The tool allows for an indicative understanding of the probable key existing cycle routes, as well as those under various future scenarios. However, these routes do not take into account journeys for any other purposes than commuting to work, and do not consider future growth in the area.

2.8.78 The PCT outputs should therefore only be considered as a starting point, with the network further refined through the subsequent stages in the LCWIP process

LCWIP Implications

- The outputs of the PCT identifies a significant challenge in regard to providing sufficient infrastructure to accommodate the predicted levels of growth in cycle use in the town of Selby.
- Conversely, the tool is less aspirational regarding the propensity to cycle in Sherburn and Tadcaster, indicating relatively low future levels of usage even under the 'Go Dutch' scenario.
- However, it should be noted that the tool can't consider the additional potential growth in cycling levels due to the significant committed and anticipated development in the District.
- Without the provision of high-quality infrastructure, growth is likely to remain suppressed in each area, with travel by cycle for all purposes remaining at its existing low level.

3

BEST PRACTICE REVIEW

3 BEST PRACTICE REVIEW

3.1 OVERVIEW

3.1.1 Streets need to manage a wide range of road users and their competing demands by providing clear but flexible spaces, with consistent and legible features that acknowledge where, when and how users should interact.

3.1.2 Continuous improvement of the street environment and of public places is critical to meet the changing demand and expectations as urban areas grow and diversify. This will rely on best practice, creativity and innovation to develop places that cater for the current and future users.

3.1.3 Priorities should be applied to best provide for efficient and safe movement of people, goods and services, while reflecting and enhancing the character of the place. Balancing user priorities, especially the needs of pedestrians and cyclists, is often challenging in busy urban contexts. There is a need to carefully consider configurations, phasing and infrastructure to respond to the most challenging junctions and increase permeability.

3.1.4 This high-level review of best practice highlights the salient points from a range of industry-leading documents, discussing how each document could shape the emerging cycling and walking networks in the study area. These documents include:

- London Cycle Design Standards (TfL, 2014);
- Greater Manchester Cycling Design Guidance (TfGM, 2014);
- City Connect Cycle Superhighway Design Guidance (CCDG)
- Interim Advice Note 195/16: Cycle Traffic and the Strategic Road Network (Highways England, 2016);
- Designing for Cycle Traffic: International principles and practice (DCT) (John Parkin, ICE, 2018);
- Design Manual for Bicycle Traffic (CROW, 2007);
- Cycling Infrastructure Design LTN 2/08 (DfT, 2008);
- Local Transport Note 1/12: Shared Use Routes for Pedestrians and Cyclists (Department for Transport, 2012);
- Creating Better Streets: Inclusive and Accessible Places – Review of Shared Space (CIHT, 2018)
- Streetscape Guidance (Transport for London, 2016);
- Planning for Walking (CIHT, 2015);
- Designing for Walking (CIHT, 2015);
- Design Guidance: Active Travel (Wales) Act 2013 (Welsh Government, 2014);
- Manual for Streets 2 (CIHT, 2010); and
- Providing for Journeys on Foot (CIHT, 2000).

3.2 CYCLING GUIDANCE AND BEST PRACTICE

London Cycle Design Standards (LCDS) (TfL, 2014)

3.2.1 The London Cycling Design Standards (LCDS) document sets out the requirements and provides advice for cycle network planning in London (although the guidance is equally applicable in many other areas).

3.2.2 The document is split up into eight separate sections, each covering different aspects of cycling design. The introductory chapters explore general design requirements and techniques for planning and delivering high-quality infrastructure. Several design outcomes are listed which are envisaged to help shape the design of cycling infrastructure in London:

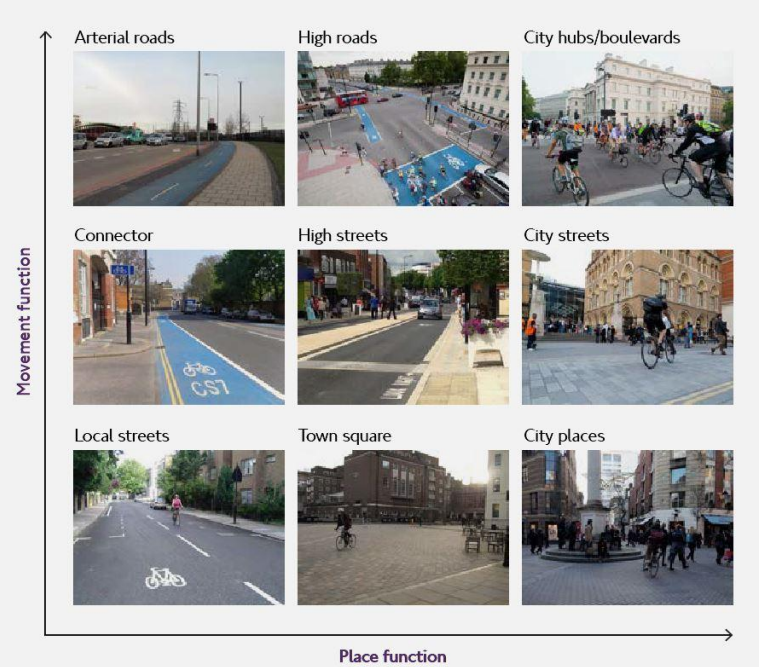
- Safety;
- Directness;
- Comfort;
- Coherence;
- Attractiveness; and
- Adaptability.

3.2.3 The LCDS explores user needs and provides guidance and principles that different places should adopt in order for them to become places for everyone.

3.2.4 The LCDS presents a framework of nine street types that have been designated in accordance with their 'movement' and 'place' function, allowing a route to be classified depending on how it's purpose relates to either the 'movement' of people or a 'place' to be in. Figure 3-1, shown below, is taken from the LCDS and shows these nine street types and how they relate to their place and movement function.

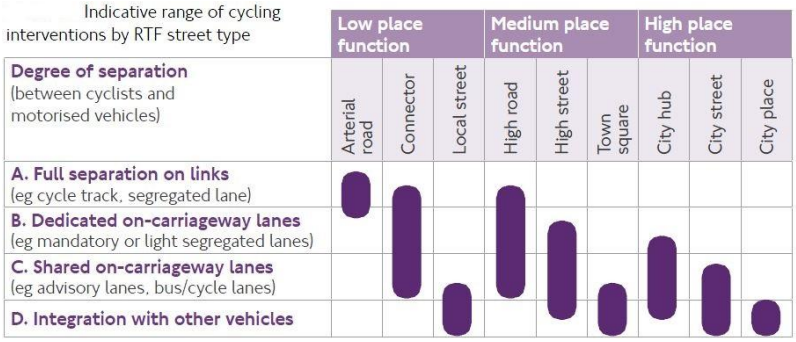
3.2.5 Street types classify the function of a location on the highway and the implementation of suitable measures can improve a streets performance so that it can better meet its functional requirement. Where a location is determined to have a high place function, a scheme may have an objective to bring people into the space and remain there for a period of time, potentially through calming or reducing vehicular traffic. Where through movement is the primary function, a scheme may focus more on objectives such as capacity, cycle priority and avoidance of delay.

Figure 3-1 - LCDS Street Type Matrix



3.2.6 The LCDS also provides broad guidance on the types of intervention for cycling that may be most suitable depending on the determined street type, discussing the level of segregation that between cyclists and motor vehicles that is most likely to be required. This relationship between place, movement, and segregation has been considered throughout the LCWIP process.

Figure 3-2 - Street Type and Associated Interventions



3.2.7 The remaining chapters of the document consist of detailed design guidance covering cycle lanes and tracks, junctions and crossings, signs and markings, construction, surfacing and cycle parking.

Greater Manchester Cycling Design Guidance (TfGM, 2014)

3.2.8 The Greater Manchester Cycling Design Guidance document aims to promote consistency in the provision of cycling infrastructure across Greater Manchester in support of Transport for Greater Manchester's (TfGM) aspirations to achieve a target of a 300% increase in the levels of cycling across the city region.

3.2.9 The document describes the different types of links that exist across Greater Manchester, including cycle tracks; cycle lanes; shared use footways/cycleways; quiet streets; and cycle paths. The guidance identifies key design criteria which are used to determine a framework for designing effective and appropriate cycle infrastructure in a similar manner to the LCDS, including:

- Safety – cycling infrastructure must cater for all age groups (ages 8-80) and the full range of cycling abilities. To achieve this 'Family Network', the Vélocity aspiration is therefore to provide largely segregated cycle facilities whereby cyclists are separated from other road users.
- Coherence – the cycle route must be easy to find and intuitive to navigate; be consistent in quality; and offer route continuity and completeness.
- Directness – the cycle facilities must be direct in terms of both distance and time. Cycle routes need to serve key desire lines, connecting origins to destinations end-to-end without significant detour or delay.
- Attractiveness – the cycling environment along a route should be pleasant and interesting to encourage the full range of cyclists including beginners, recreational cyclists and commuter cyclists. Furthermore, there should be good levels of natural surveillance and, where appropriate, street lighting in order to promote personal safety.
- Comfort – cycling infrastructure should be designed, built and maintained for ease of use and for comfort. This means application of high-quality surface treatment and seeking to minimise the number of times it is necessary to stop or conflict with other road users.

3.2.10 The guidance also promotes a Quality of Service rating; this rating is a measurement of the degree to which the needs of the cyclists are considered to have been met, assessed against the five key design criteria. This approach is similar to the Cycling Level of Service (CLoS) assessment promoted by Transport for London.

3.2.11 The guidance is divided into chapters covering distinct elements of cycle infrastructure design, including link facilities and route features; junctions and crossings; signs and markings; and general construction guidance (including surfacing). In each of the chapters, parameters are defined to assist designers in developing appropriate infrastructure for a wide range of scenarios, taking into account constraints that may be present, such as cost, acceptability, and deliverability.

3.2.12 A range of standards, look up tables and related guidance, such as cycle parking, is included in the appendices of the document.

City Connect Cycle Superhighway Design Guidance (CCDG)

3.2.13 Developed by West Yorkshire Combined Authority, CityConnect Superhighway Design Guidance describes different measures that have been implemented along the Cycle Superhighway between Leeds and Bradford.

3.2.14 The document explains how users should navigate these different spaces and which transport mode has priority. Design features covered in the document include side roads and non-signalised junctions, bus stops, bi-directional sections of track, shared spaces and diagonal crossings. Guidance on ancillary design features is also included.

Design Manual for Roads and Bridges (DMRB) - Interim Advice Note 195/16: Cycle Traffic and the Strategic Road Network (Highways England, 2016)

3.2.15 IAN 195/16 provides guidance and technical specifications for the provision of cycle infrastructure along the Strategic Road Network (SRN). The SRN is typically concerned with provision for longer distance journeys between urban areas, generally at higher speeds, and non-motorised traffic is prohibited from travel on any motorways; the guidance therefore focusses predominantly on segregated provision away from the carriageway. Through adoption of the design principles laid out in the document, convenient and safe movement of cycle traffic crossing or travelling along the SRN should be made possible.

3.2.16 Different aspects of implementing infrastructure on the SRN are covered, including links, junctions, crossings and roundabouts, as well as signage, construction and maintenance. For each design feature, different factors are taken into consideration (e.g. traffic volumes, speed, road dimensions) allowing the designer to make a more informed decision about the most suitable infrastructure element used.

Designing for Cycle Traffic: International principles and practice (DCT) (John Parkin, ICE, 2018)

3.2.17 This book describes and analyses best practise design principles from the UK, Holland, Denmark, and the US. It covers different elements of cycling design, including on and off-carriageway routes, junctions, and crossings design. A major theme running through the document is that only distinct and separate cycling provision can ensure attractive and comfortable cycling infrastructure.

3.2.18 The document also explains related topics, including the planning processes involved when designing for cycling, legal and policy requirements, and the monitoring and evaluation of cycling infrastructure.

3.2.19 The concluding chapters explore different ways of modelling and auditing cycling infrastructure and recent innovations in cycling design.

Design Manual for Bicycle Traffic (CROW, 2007)

3.2.20 The Dutch Design Manual for Bicycle Traffic – commonly referred to as the 'CROW' explains the engineering and design principles that have been deployed in the Netherlands which have helped to create and maintain the current high level of cycling in the country.

3.2.21 Detailed guidance on cycle user types, their needs, and cycle infrastructure design to meet those needs is provided; ensuring infrastructure is planned to reflect cycle users' characteristics is a key theme throughout the document. The guidance also considers how infrastructure can best meet four core design criteria, ensuring routes are perceived to be safe, direct, comfortable and attractive. The document discusses the overarching principles in designing a cycling network, before setting out more detailed network components including road sections and junctions, and details of cycle path maintenance, furnishings, lighting, and signing.

3.2.22 The final chapter presents methodologies for evaluating cycling projects and how to ensure the long-term maintenance of roads.

Cycling Infrastructure Design LTN 2/08 (DfT, 2008)

3.2.23 This Local Transport Note (LTN) provides guidance on improving safety and reducing unnecessary delays and diversions for cyclists and pedestrians through the design of cycle infrastructure.

3.2.24 A hierarchy of safety measures is suggested, with measures that aim to reduce traffic volume and traffic speed recommended be considered first, and conversion of footways/footpaths to shared use for pedestrians and cyclists be considered last.

3.2.25 Design recommendations are included in the document covering a variety of different cycling infrastructure components: signage, cycle lanes, off-road cycle routes and junctions, as well as ancillary cycling aspects such as cycle parking and integration with public transport.

3.2.26 It is noted that, while still current, the guidance contained in LTN 2/08 is no longer considered to reflect best practice, and it is anticipated that a new version will be published in 2020. The updated LTN will replace the original guidance note, and recognise and promote recent innovations in cycling infrastructure, taking on board the views and opinions of a number of prominent cycling groups and stakeholders.

3.2.27 WALKING GUIDANCE AND BEST PRACTICE

Local Transport Note 1/12: Shared Use Routes for Pedestrians and Cyclists (Department for Transport, 2012)

3.2.28 This Local Transport Note focuses specifically on routes within built-up areas where pedestrian and cycle use is likely to be frequent. The document uses a hierarchy of provision, developed in LTN 2/08, to encourage practitioners to develop on-carriageway solutions first, in order to prevent designers from resorting too readily to 'shared use' interventions.

3.2.29 An overview of the scheme development process is provided, using a flow chart to explain how different traffic characteristics may influence design considerations and whether the adoption of shared use schemes or on-carriageway improvements may be more appropriate.

3.2.30 If a shared use intervention is considered to be the most appropriate design element, a key decision that needs to be made by practitioners is whether segregate the route or not, ensuring that whatever interventions are proposed reflect the core design principles of being convenient, accessible, safe, comfortable and attractive. The document weights up the advantages and drawback of these different design elements.

3.2.31 Pedestrian design considerations are examined, ensuring that the conversion of footways into shared use routes does result in the displacement of existing users and that the perception of reduced safety does not deter elderly people or disabled people from using the route. The document therefore recommends that pedestrians have sufficient width after conversion and that their particular concerns are discovered early on in the route's design.

3.2.32 Other design recommendations include ensuring the shared use route is clear from street clutter and aligning the cycle track so that it is placed on the carriageway side of a segregated shared-use route, improving pedestrian safety.

3.2.33 Related aspects of the scheme development process are also covered including how to hold effective stakeholder engagement and manging the route post-implementation.

3.2.34 Shared space has recently been the subject of debate regarding inclusive mobility and accessibility in shared space, with the lack of a defined kerb and formal crossing points have a particularly negative impact on certain user groups.

3.2.35 Following the publication of the "Inclusive Transport Strategy: Achieving Equal Access for Disabled People" (DfT, 2018) and the Ministry for Housing, Communities and Local Government's National Planning Policy Framework refresh, the DfT have called for a pause on the introduction of new shared space schemes as they update LTN 1/12 to address these issues. The pause relates to those shared space schemes that feature a level surface in areas with relatively large amounts of pedestrian and vehicular movement, such as high streets and town centres (outside of pedestrian zones). The pause does not apply to streets within new residential areas or the redesign of existing residential streets with very low levels of vehicular traffic, such as appropriately designed mews or cul-de-sacs.

Creating Better Streets: Inclusive and Accessible Places – Review of Shared Space (CIHT, 2018)

3.2.36 This CIHT document examines the current debate regarding the effectiveness and safety of shared space initiatives in the UK through a review of several case studies, as well as an exploration of the relevant legislation.

3.2.37 The report recommends that future projects be scored against several objectives:

- whether a scheme represents an inclusive environment or not;
- ease of movement for all users; and
- quality of place and economic benefit.

3.2.38 The report recognises the difficulty that defining 'shared space' schemes has had in hampering any meaningful discussion about them. Three types of shared space schemes were identified through a review of case studies, each with different characteristics:

- pedestrian prioritised streets;
- informal streets; and
- enhanced streets.

3.2.39 The report intends that using these distinctions will provide greater clarity for designers, decision makers, stakeholders and users and calls for these (or similar) 'shared space' street typologies to be adopted by government. It also suggests that these criteria be used to determine the effectiveness of a scheme post-implementation.

3.2.40 The document also recommends that local authorities set clearer outcomes during the design stage of a shared space scheme and that government emphasises the importance of stakeholder engagement. Calls were also made for the government to review several different specific elements of shared space initiatives.

Streetscape Guidance (Transport for London, 2016)

3.2.41 TfL's Streetscape Guidance document is guided by three major functions:

- To encourage designers of streetscapes to use robust design methods;
- to highlight the level of ambition that is required to develop high-quality levels of service; and
- to highlight best practise design principles.

3.2.42 The document's design considerations take examples from case studies all over London where the successful redesign of streets has taken place and, where practical and appropriate, encourages the trialling and testing of new transport schemes and initiatives in order to stimulate future street improvements.

3.2.43 Different street types are recognised as supporting different functions which must balance the sometimes-competing functions of movement and place. Technical guidance on different design principles complements these considerations, with detailed information on different street components.

Planning for Walking (CIHT, 2015)

3.2.44 CIHT's Planning for Walking document describes the early stages of how best to implement walking strategies. The document begins by exploring current walking trends and characteristics, before explaining the benefits of walking and the problems and barriers pedestrians face.

3.2.45 The legal and regulatory context of walking is examined, setting the scene for how effective strategies can be envisaged and planned, describing how walking catchments, desire lines, pedestrian safety and other aspects of the pedestrian environment can contribute towards planning for walking.

3.2.46 Examples of ways in which local authorities have encouraged greater levels of walking for all purposes are described, such as through the implementation of travel plans or promotional campaigns, before considering potential trends, opportunities, and challenges which could affect levels of walking in the future.

Designing for Walking (CIHT, 2015)

3.2.47 Designing for Walking follows on from CIHT's Planning for Walking (see above), with this document explaining how facilities for walking should be designed.

3.2.48 Design considerations that affect the quality of the walking environment are considered, as are other factors including the assessment of options for crossing streets, assessment of pedestrian routes, the necessity of pedestrian guard railing, the use of tactile paving, way finding, journey end facilities/interchanges, and the use or impact of street features and furniture.

Design Guidance: Active Travel (Wales) Act 2013 (Welsh Government, 2014)

3.2.49 This statutory guidance document provides details on the planning, design, construction and maintenance of active travel networks and infrastructure in Wales, addressing both walking and cycling provision.

3.2.50 The document presents a summary of the legal and policy framework enshrining the Active Travel Act, and describes how the Act mandates local authorities to develop active travel network maps in order to show existing infrastructure provision and to demonstrate where new active travel routes will be developed.

3.2.51 The guidance explains the processes of creating new and improving existing walking and cycling infrastructure, as well as setting out how to successfully engage with stakeholders and members of the public when considering active travel improvements.

3.2.52 The document sets out five essential design criteria for new cycling and walking infrastructure, which are: Coherent, direct, safe, attractive and comfortable. The guidance presents different design elements to achieve these criteria in a range of different conditions.

3.2.53 Within the appendices of the document, detailed guidance is provided to assist designers in developing appropriate infrastructure for a wide range of scenarios taking into account constraints that may be present, such as cost, acceptability and deliverability. Each element is given a rating as to whether the infrastructure is well understood and widely used or whether the element has been largely untested in Wales, but has been adopted elsewhere.

3.2.54 Further guidance is also given on the assessment of walking routes, with a scoring system used to determine whether a route provides good quality provision for pedestrians or not, using the five core design criteria.

Manual for Streets 2 (CIHT, 2010)

3.2.55 Manual for Streets 2 (MfS2) builds on the guidance contained in MfS1, exploring in more detail how and where to apply its key principles, ensuring streets are designed with pedestrians considered first, promoting collaboration and engagement between different parties, setting a clear vision and objectives, and developing innovative approaches to street design.

3.2.56 The characteristics of different street types are explored, emphasising how town centre and city centre streets often have to serve multiple different functions and support multiple different users. Possible interventions to consider in these environments include vehicle access restrictions and adoption of an area-wide public realm strategy and streetscape manual.

3.2.57 The latter part of the document explores the detailed design of several streetscape elements. Regarding pedestrian provision, the document advises that:

- The propensity to walk is influenced not only by distance, but also by the quality of the walking experience;
- Good sightlines and visibility towards destinations and intermediate points are important for way-finding and personal security;
- Pedestrian routes need to be direct and match desire lines as closely as possible, including across junctions, unless site-specific reasons preclude it;
- Pedestrian networks need to be connected. Where routes are separated by heavily trafficked roads, appropriate surface-level crossings should be provided where practicable;
- Pedestrians should generally be accommodated on multifunctional streets rather than on routes segregated from motor traffic. In situations where it is appropriate to provide traffic-free routes they should be short, well-overlooked and relatively wide;
- Obstructions on the footway should be minimised. Street furniture on footways can be a hazard for vulnerable people; and
- There is no maximum width for footways—widths should take account of pedestrian volumes and composition.

3.2.58 Regarding footway provision, recommendations include providing footways along both sides of the highway, ensuring footways are of a sufficient width to cater for peak demand without causing crowding or potentially risking people getting pushed into the carriageway, taking space away from the carriageway in order to create a better-balanced street and rationalising street furniture.

3.2.59 The document's appendices include several case studies, explaining the design elements used and evaluating whether the interventions were successful or not.

Providing for Journeys on Foot (CIHT, 2000)

3.2.60 Providing for Journeys on Foot is one of the earliest publications exploring ways in which local authorities should plan and provide for pedestrians, maintain walking infrastructure and promote walking, and while almost 20 years old, the principles it promotes are still highly relevant.

3.2.61 The document sets out 'The Five Cs' as being the most important considerations when assessing the overall quality of the existing environment and when designing new infrastructure, which are: connected, comfortable, convenient, convivial and conspicuous.

3.2.62 Urban design principles are also endorsed, taking into consideration the importance of multi-disciplinary working. Different aspects of the walking environment are examined in more detail, taking into consideration how pedestrian environments vary, basing design recommendations on these findings.

3.2.63 Post-construction aspects of walking provision are also examined, including footway maintenance, promoting walking, and the appraisal and monitoring of pedestrian infrastructure schemes. The document concludes with example checklists and frameworks used to assess existing walking environments and assess possible investment options.

4

CYCLE NETWORK DEVELOPMENT

4 CYCLE NETWORK DEVELOPMENT

4.1 OVERVIEW

4.1.1 One of the key outputs of Phase 1 of the Selby District LCWIP process is the determination of the Cycling Network Map (CNM), which sets out a cohesive potential network for cycling. This network is then considered against the baseline evidence in order to identify preferred routes for further development.

4.1.2 The development of the Cycling Network follows the LCWIP Technical Guidance for Local Authorities document (DfT, 2017), and is founded on the principle of connecting people to places, ensuring that the proposed networks correspond to both the routes people currently take and those people are likely to want to take, both now and in the future. This method also helps to identify the long-term vision for the networks while ensuring investment is focused on the key routes and the needs of cycle users. The resulting outputs are networks that are evidence-based and facilitate strategic development.

4.2 METHODOLOGY

4.2.1 The development of the Cycle Network Map can be divided up into a 10-step process. These are as follows:

- Step 1 – Defining the Study Area;
- Step 2 – Identify Key Origins and Destinations;
- Step 3 – Identify Key Future Developments and Infrastructure;
- Step 4 – Clustering of Origins and Destinations;
- Step 5 – Schematic Connections Between Origins and Destinations;
- Step 6 – Identify Routes Serving the Schematic Network;
- Step 7 – Identify a Route Hierarchy;
- Step 8 – Produce Draft Cycle Network;
- Step 9 – Validation and Review; and
- Step 10 – Produce Final Network.

4.2.2 The following sub-sections describe the process undertaken in developing the CNM for the Selby District LCWIP study areas.

4.3 STEP 1 – DEFINING THE STUDY AREA

4.3.1 The first step in developing the network map is to define the extents of the study area.

4.3.2 In order to determine these extents, a process of ‘baselining’ was undertaken to understand travel movements and demographic variations in the District, including a review of various data sources in order to understand the existing transport-related issues, physical constraints and topography. Isochrone mapping was undertaken in order to understand the likely extents of active travel distances, while the DfT’s Propensity to Cycle Tool (PCT) was used to identify existing and potential future cycle travel patterns.

4.3.3 A number of site visits have also been undertaken at various stages of the process; these site visits have helped understand existing and future travel demands, identify key corridors, and consider constraints on the network.

4.3.4 Stakeholder engagement has also been key in understanding the priorities of the District and the implications and alignment with other workstreams.

4.3.5 Following an analysis of this evidence base, it was agreed that the Selby District LCWIP will focus on three distinct areas, as shown in Figure 1-1:

- Selby with Thorpe Willoughby, Brayton, and Barlby / Osgodby;
- Tadcaster; and
- Sherburn.

4.3.6 The LCWIP will also consider strategic links between these and to outlying areas where deemed appropriate.

4.4 STEP 2 – IDENTIFY KEY ORIGINS AND DESTINATIONS

4.4.1 Key origins and destinations were plotted using data collected through the baseline exercise, site audits, stakeholder engagement, and through local knowledge. These ODs included the following key origin points:

- Residential areas – Lower Super Output Area (LSOA) population-weighted centroids were used as proxy locations for residential areas; and
- Public transport interchanges – these are both origins in terms of people arriving in the study area and destinations people use to travel to wider locations.

4.4.2 Key destinations included:

- Public transport interchanges (as above);
- Principal retail areas;
- Employment concentrations;
- Large grocery shops;
- Hospitals;
- Tourist attractions; and
- Educational institutions.

4.4.3 Figure 4-1 to Figure 4-3 show these key ODs in relation to the Selby District LCWIP study areas. Further detail regarding OD identification is available in Section 2.7.

Figure 4-1 - Selby: Key Origins and Destinations

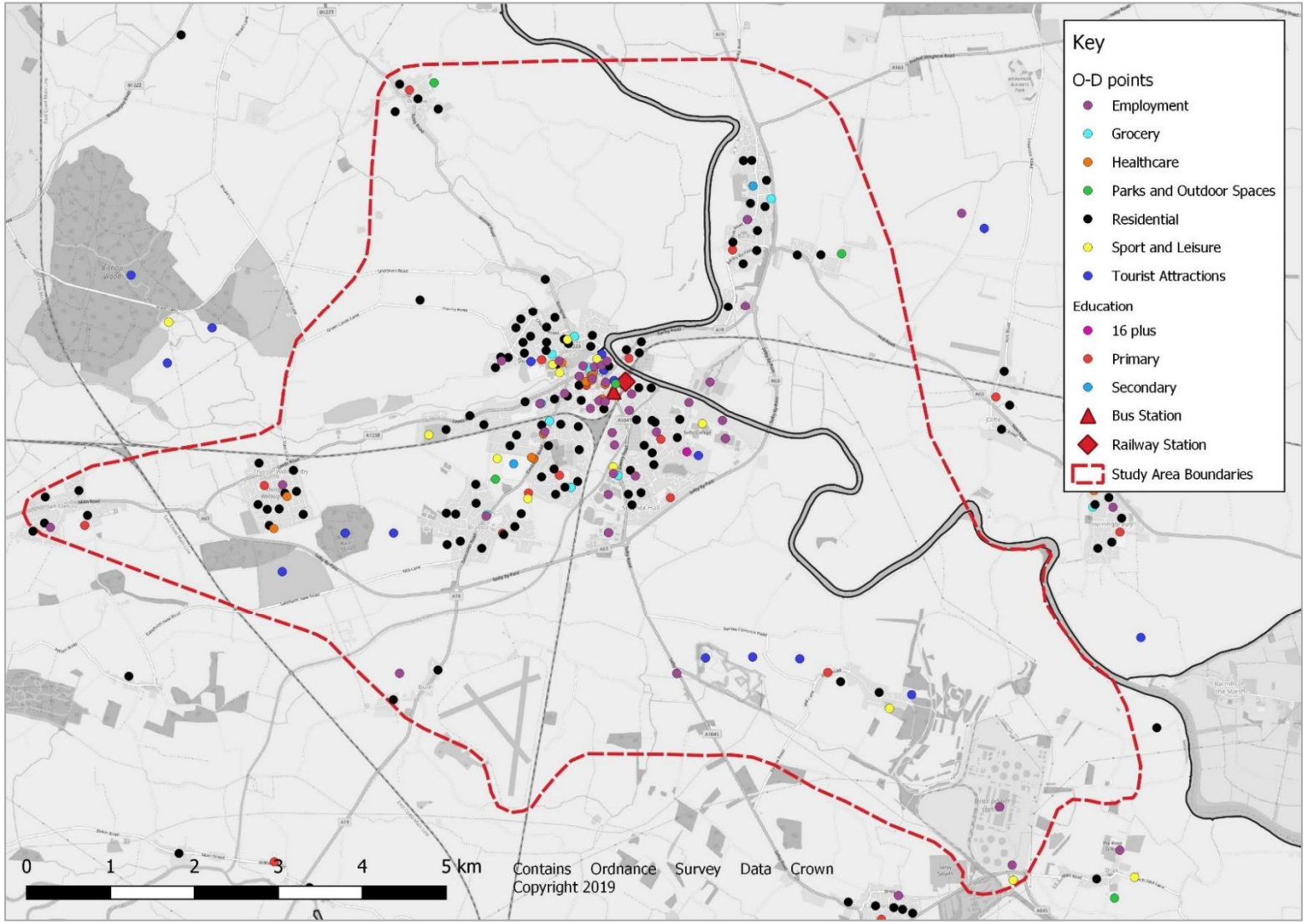


Figure 4-2 - Sherburn: Key Origins and Destinations

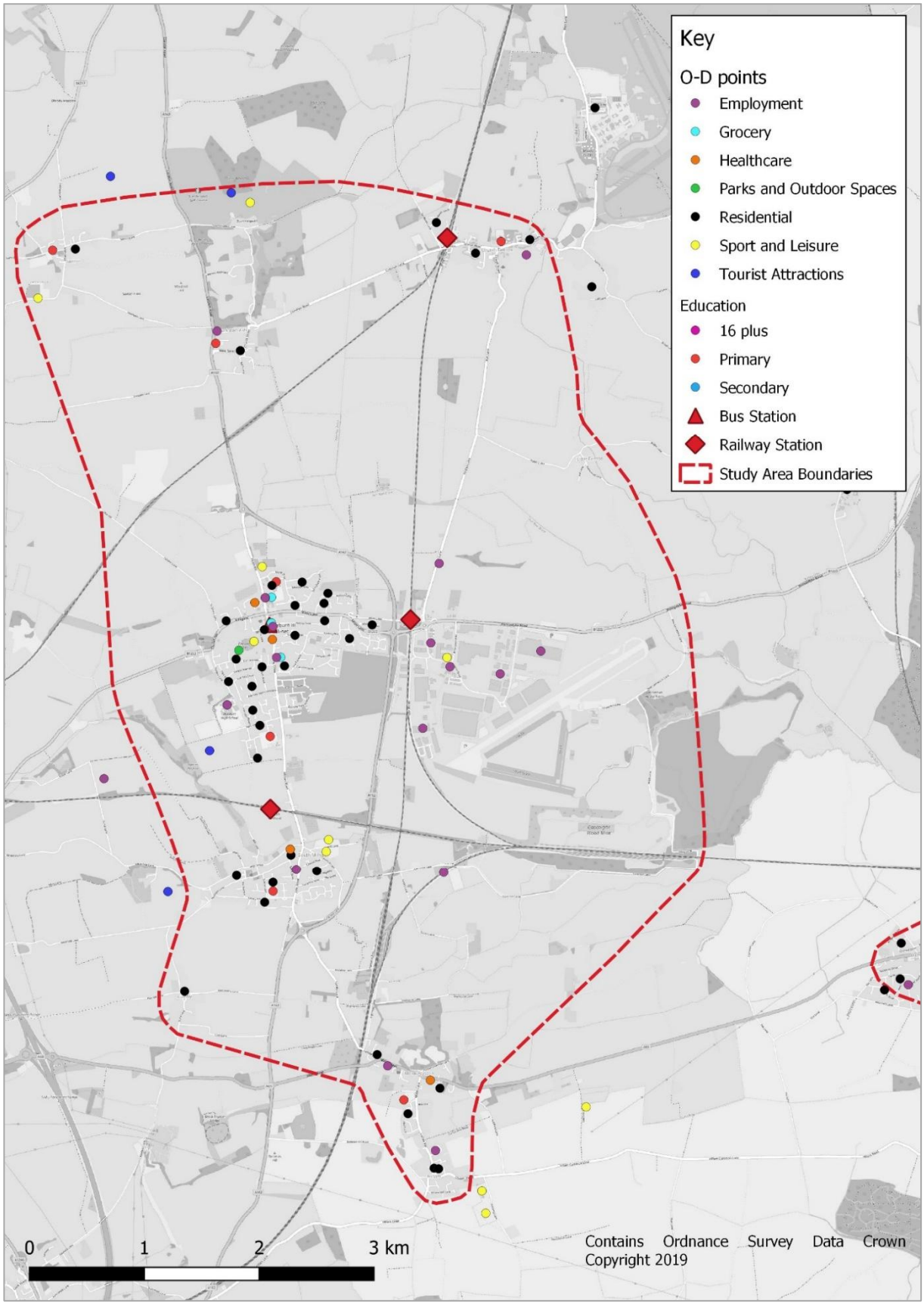
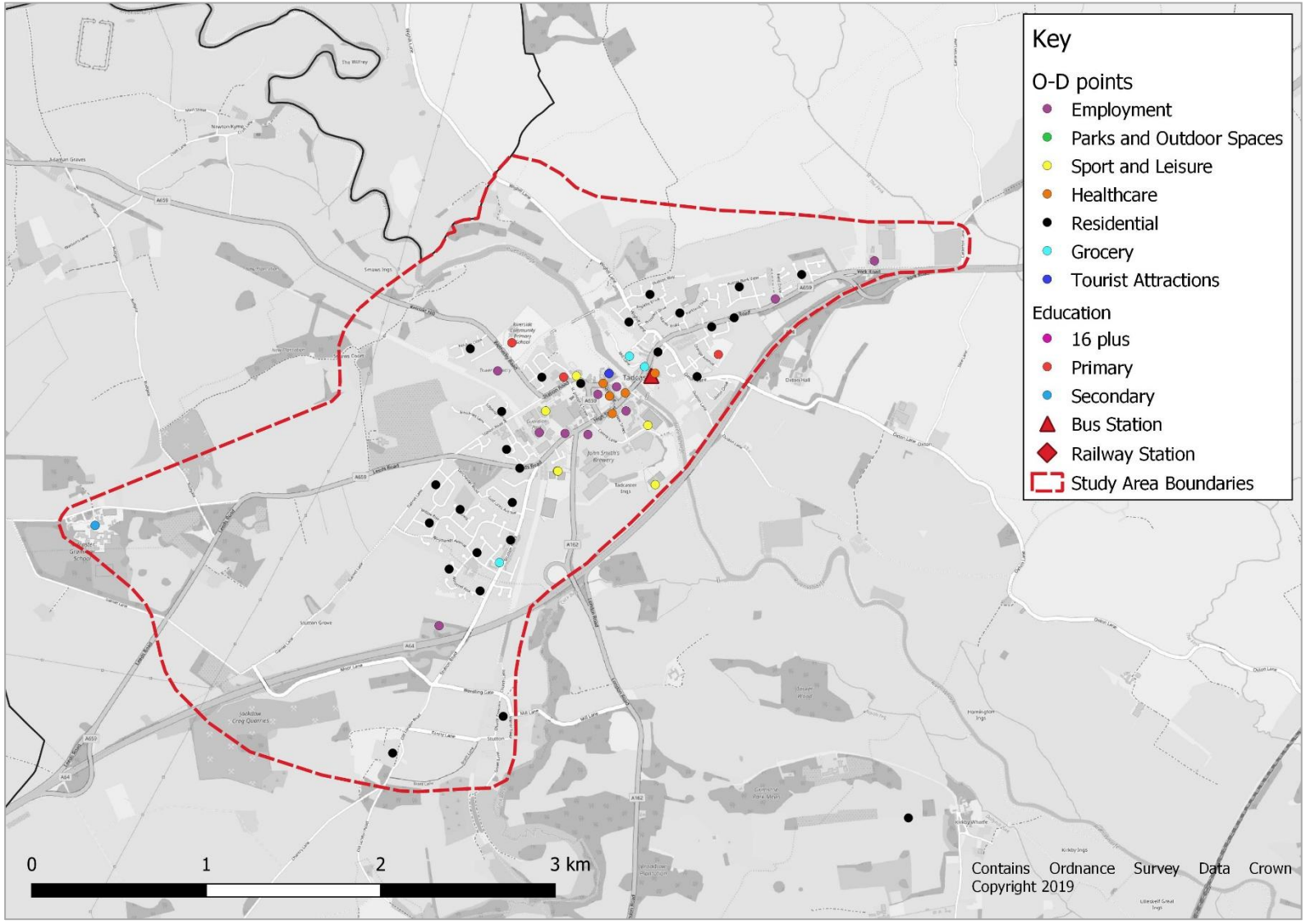


Figure 4-3 - Tadcaster: Key Origins and Destinations



4.5 STEP 3 – IDENTIFY KEY FUTURE DEVELOPMENTS AND INFRASTRUCTURE

4.5.1 Identifying potential developments and infrastructure is important in terms of understanding where future origins and destinations may be located, as well as the potential for new desire lines. Understanding the location of and proposals for such development allows the network to be developed in a way that links these sites and makes the most of planned infrastructure.

4.5.2 Figure 4-4 to Figure 4-6 identify the key future committed and allocated development sites in the Selby District LCWIP study areas, presenting these alongside the existing ODs, as determined in Step 2.

Figure 4-4 - Selby: Key Future Developments and Infrastructure

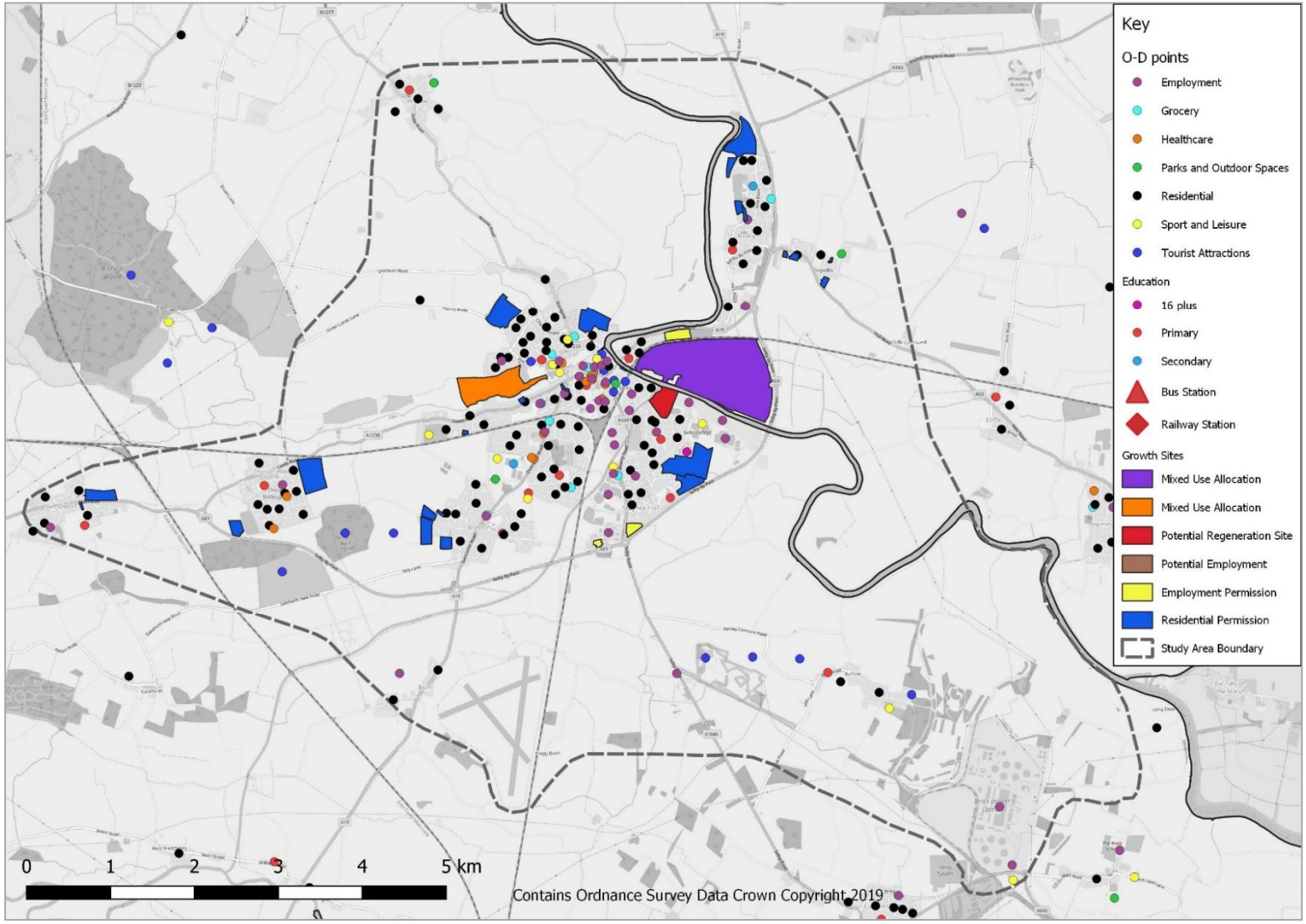


Figure 4-5 - Sherburn: Key Future Developments and Infrastructure

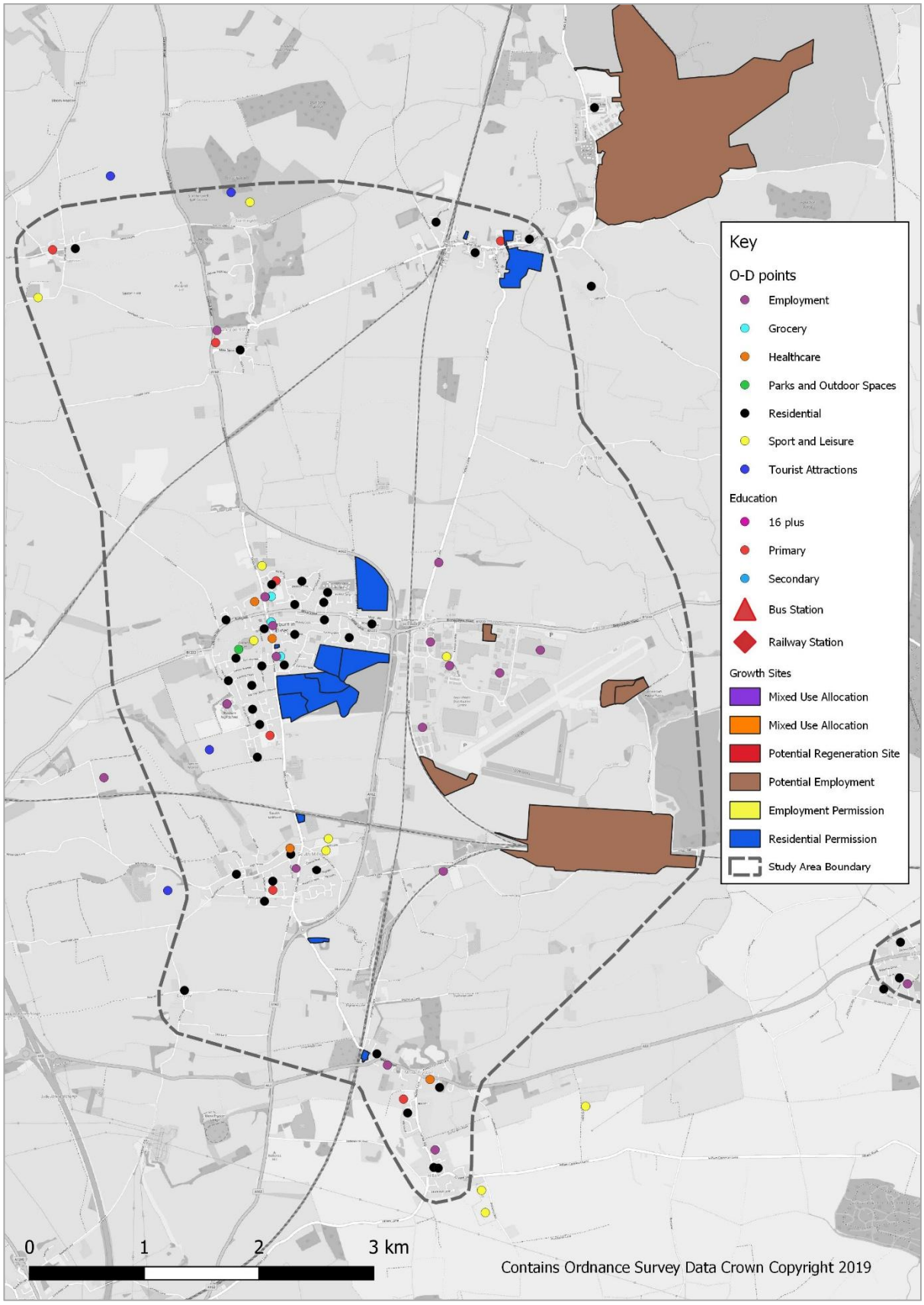
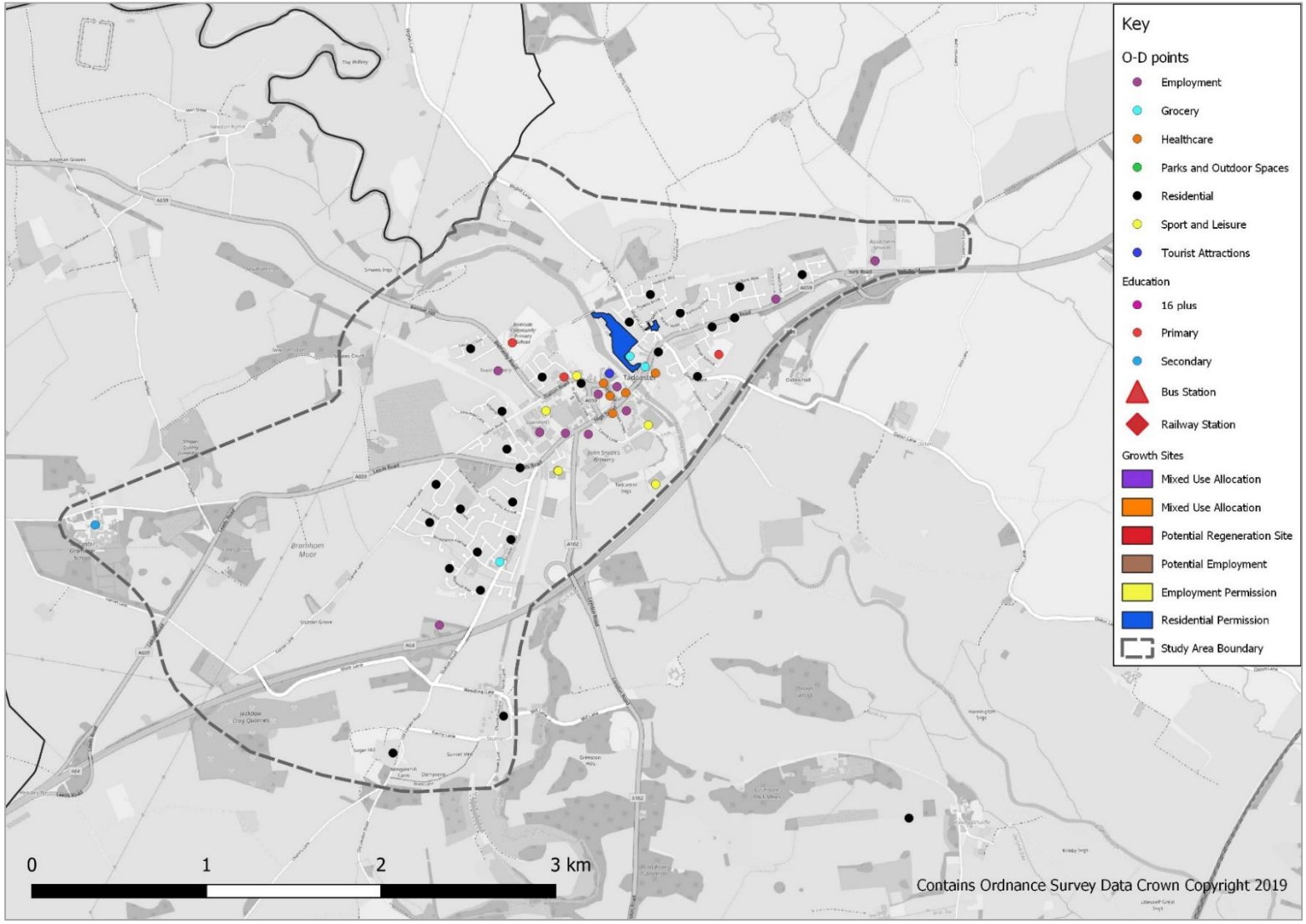


Figure 4-6 - Tadcaster: Key Future Developments and Infrastructure



4.6 STEP 4 – CLUSTERING OF ORIGINS AND DESTINATIONS

4.6.1 In Step 4, trip generators in close proximity to one another have been clustered together as key destination areas. This process simplifies the analysis of desire lines, agglomerating multiple destination points into a single broad destination.

4.6.2 Figure 4-7 to Figure 4-9 illustrate these clusters, as well as identifying the desire lines discussed in the following sub-section

4.7 STEP 5 – SCHEMATIC CONNECTIONS BETWEEN ORIGINS AND DESTINATIONS

4.7.1 Step 5 maps desire lines between the various origin and destination points. Straight lines were drawn between the key origins and destinations in order to create a schematic web network. These represent the most direct paths for cycle users between points (i.e. 'desire lines') and are, at this stage, irrespective of existing transport networks or constraints.

4.7.2 Parallel lines or lines in close proximity to each other were combined to simplify the network, and were considered as 'primary connections'.

4.7.3 A number of potential links outside the LCWIP study area were identified during the stakeholder engagement process to outlying towns, villages, and tourist / leisure destinations. It is considered that the agreed study area boundaries, encompassing Selby, Sherburn, and Tadcaster, remains appropriate in the context of the LCWIP programme, focussing on utility and commuter trips in urbanised areas and key ODs within a desirable walking and cycling distance, which are likely to have the greatest impact for the least cost. Nevertheless, some of the identified routes are likely to offer opportunity for extension in the longer term to some of the more peripheral locations, and therefore desire lines were drawn to some of these locations outside of the study area boundaries.

4.7.4 Figure 4-7 to Figure 4-9 illustrates these desire lines, as well as the clusters described in the preceding sub-section.

Figure 4-7 - Selby: Schematic Connections

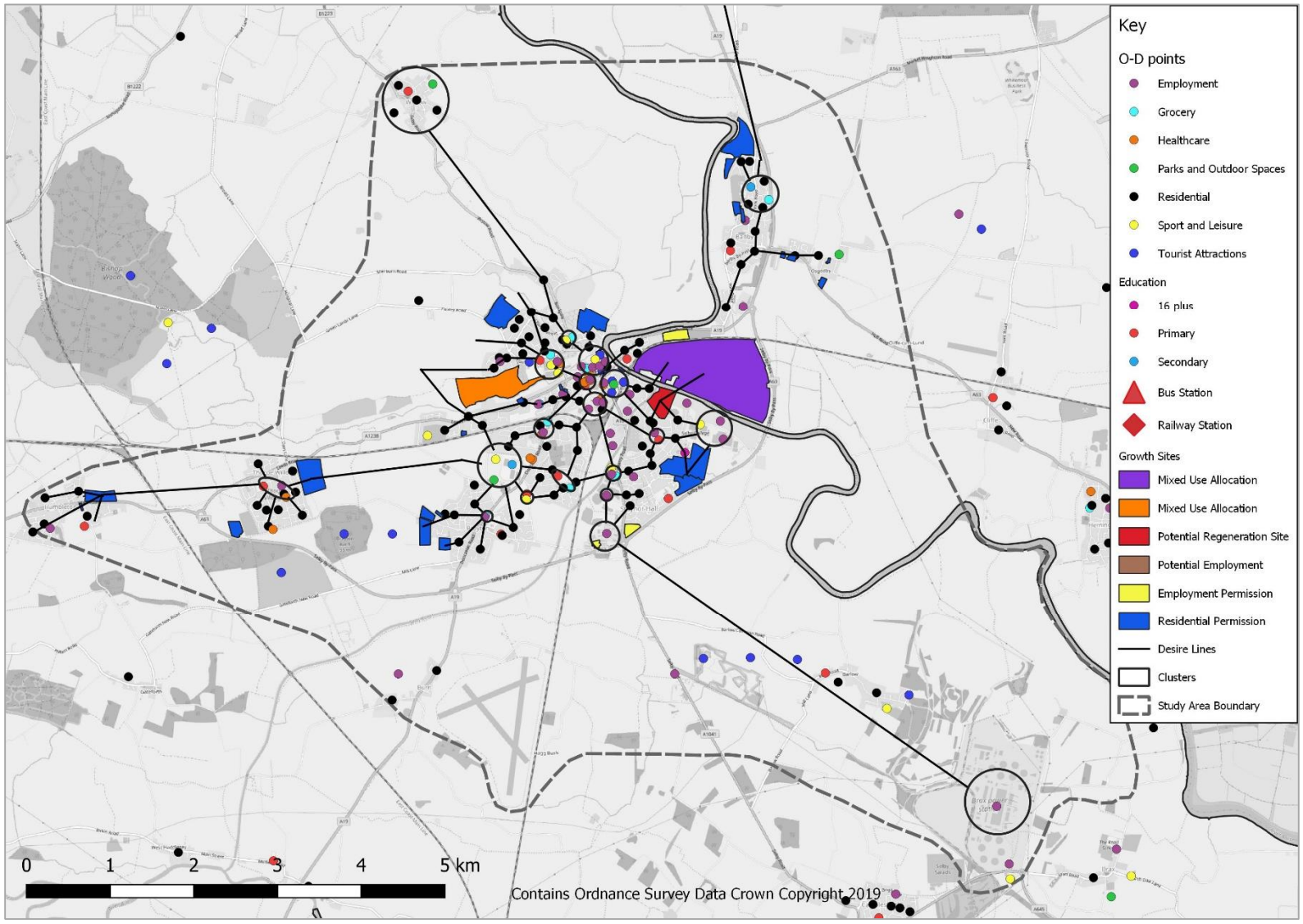


Figure 4-8 - Sherburn: Schematic Connections

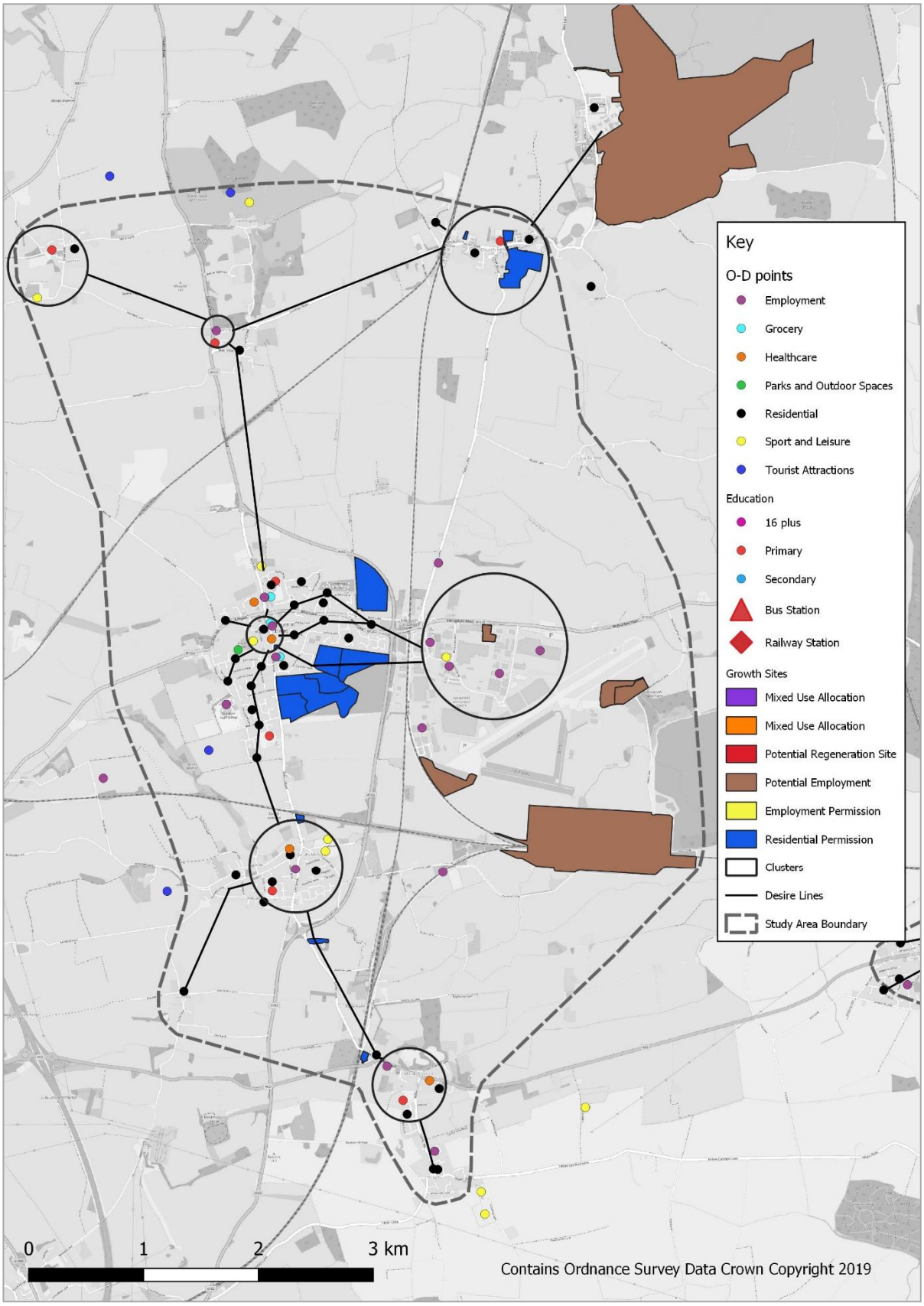
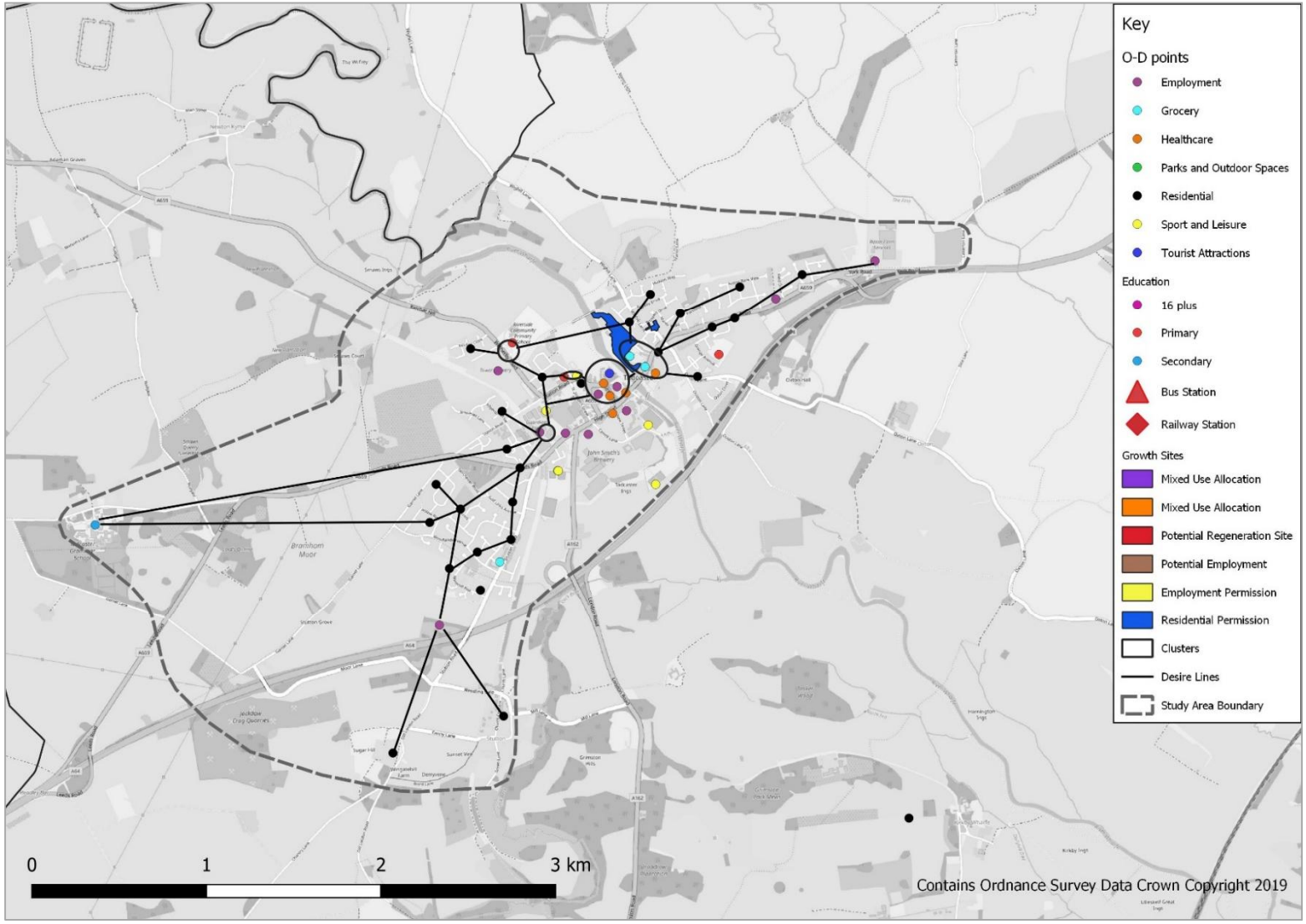


Figure 4-9 - Tadcaster: Schematic Connections



4.8 STEP 6 – IDENTIFY ROUTES SERVING THE SCHEMATIC NETWORK

Potential route alignments were then plotted, following the schematic connections identified in Step 5 as closely as possible. The routes selected take into account existing roads, paths and structures but do not consider current constraints, such as carriageway width or traffic management restrictions such as one-way orders. Figure 4-10 to Figure 4-12 below illustrates this process, displaying both clusters / desire lines in addition to the routes selected to best represent the network.

Figure 4-10 - Selby: Draft Cycle Network

Figure 4-11 - Sherburn: Draft Cycle Network

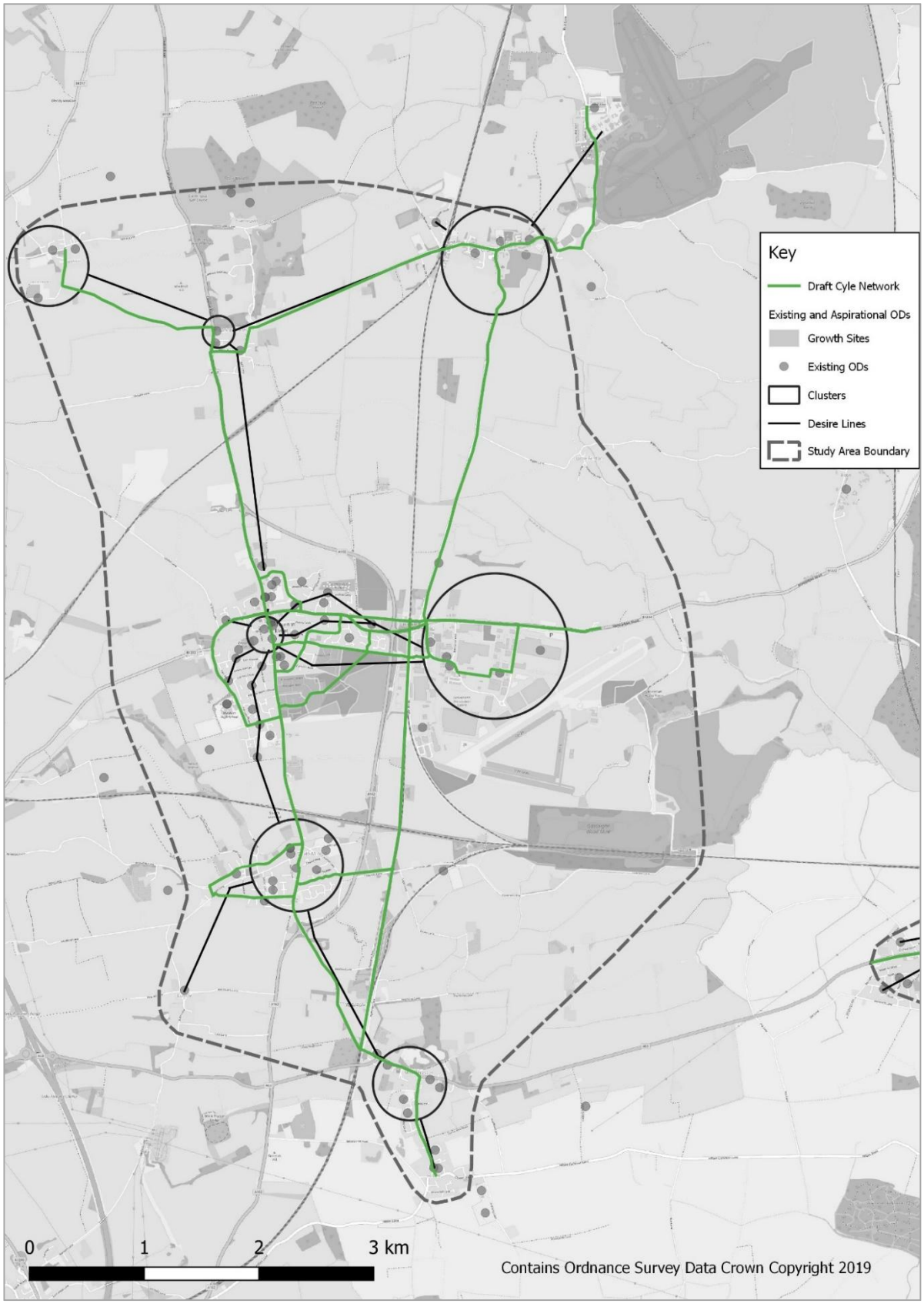


Figure 4-12 - Tadcaster: Draft Cycle Network

4.9 STEP 7 – IDENTIFY A ROUTE HIERARCHY

4.9.1 From reviewing best practice and through knowledge and experience of established cycle networks it was recognised that a cycle network hierarchy would be appropriate. Within this hierarchy the type of infrastructure provided would vary both depending on the links' position in the network hierarchy, and on the type of link, where it connects to, and how it will be used. As a result, the network has been categorised in accordance with the criteria presented in Table 4-1. This network hierarchy has been applied across the NYCC LCWIPs to ensure a consistent approach.

Table 4-1 - Draft Network Hierarchy

Network Element	Characteristics
Primary	¡ High number of cycle users; ¡ Creates arterial routes that support a wider network; ¡ Links large residential areas to main clusters such as town centre locations; ¡ Through, internal, and inbound-outbound cycle traffic; ¡ Direct, following the shortest possible route; and ¡ Low gradients (where possible).
Secondary	¡ Lower number of cycle users; ¡ Caters for shorter local trips; ¡ Increases density of network; ¡ Ensure local access to origins and destinations from the primary network; and ¡ Provides quieter routes for less confident cycle users (while primary network is being developed).
Town Centre Cores	¡ High levels of permeability and priority for cycle users and pedestrians.

4.9.2 This hierarchy has been applied to the identified cycle corridors, respective to their location in the study area and perceived role in the network, with discussion provided on the following pages. The full draft CNM is presented Step 8.

4.9.3 A core network of primary routes underpins the proposed network, taking into account the main destination clusters, origin points, and any isolated major destinations. The primary routes are supported by a network of secondary and local links, which are discussed below in relation to each study area.

Selby

4.9.4 Figure 4-13 presents the draft cycle network map for Selby.

4.9.5 The following primary routes have been identified:

- A North - West spine connection from the A63/Leeds Road roundabout in the west, extending into the town centre area, and across the River Ouse up to Barlby. This route connects the villages of Barlby and Thorpe Willoughby to Selby Town Centre and onward connections to key employment sites on Bawtry Road.
- An A19 corridor linking west of the town centre area at Selby Town Hall south-westwards to Brayton village. The route will also provide connections to Selby District Council offices, Selby War Memorial Hospital and several schools on the route, as well as residential areas off Doncaster Road.
- A route between Selby Abbey extending southwards to Bawtry Road / A63 roundabout in the south, provides connectivity to key employers at Selby Business Park and the Three Lakes Retail Park and residential areas including the new development at Staynor Hall. The route splits at Canal View to provide an alternative quiet off-road route along Selby Canal and the Trans Pennine Trail (TPT).
- An aspirational route from the A19 Barlby Road extending onto Canal Road to support the proposed Olympia Park development site. This route is envisaged to include a new active travel crossing of the River Ouse, minimising the associated severance. While improving accessibility to destination points on Bawtry Road and onward connectivity into Selby, an indicative desirable route through Olympia Park is shown.

4.9.6 The figure shows a number of shorter distance primary routes that complement the longer distance routes listed above. Despite the reduced length, these routes link key origins and destinations, and are anticipated to accommodate the highest numbers of cycle users in the area.

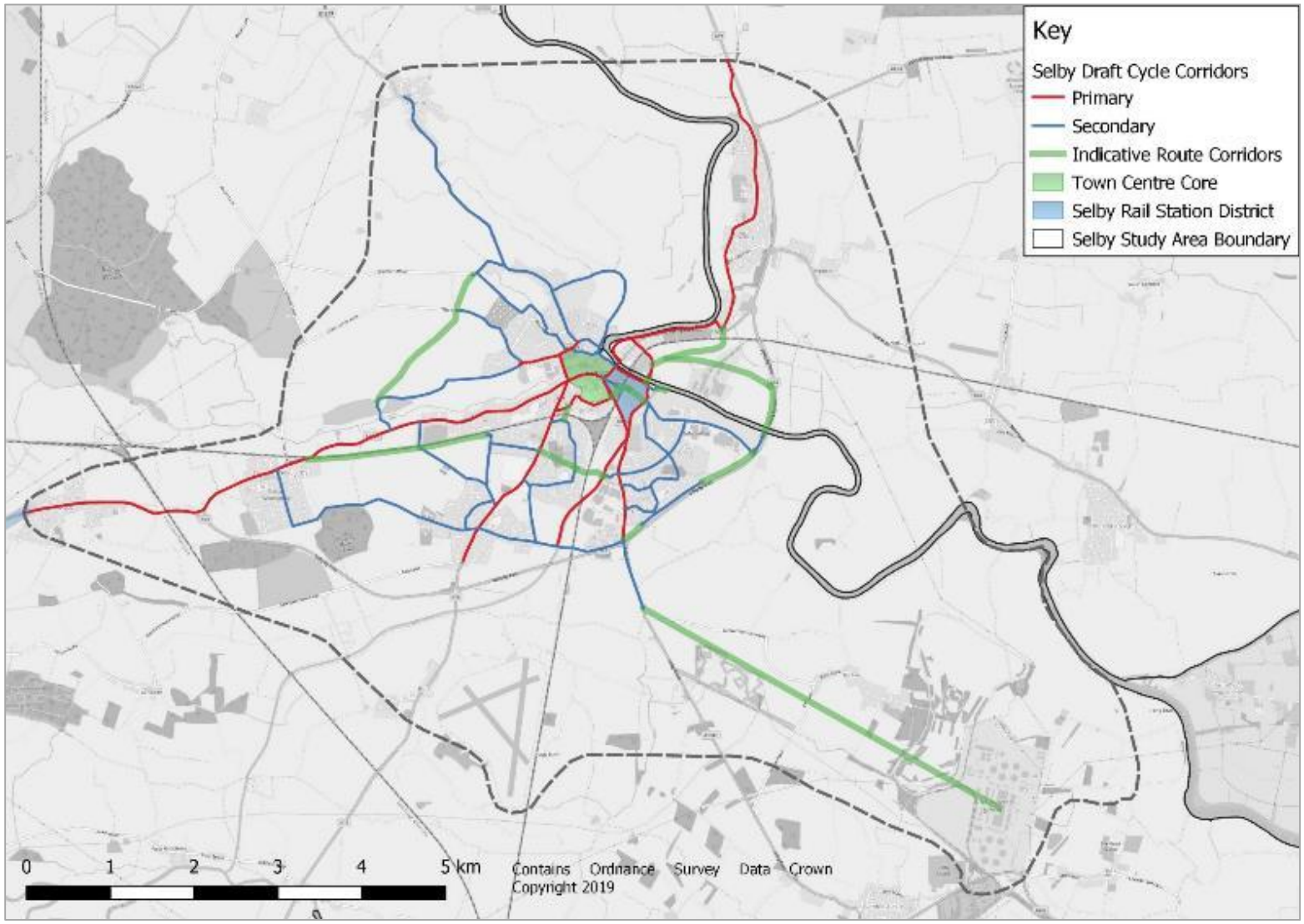
4.9.7 These routes include:

- Portholme Road/Union Lane – a key desire line from the train station to Selby High School via retail, education and other local amenity points.
- Scott Road – Primary link between the A19 and Flaxley Road, supporting a key desire line from the town centre to residential areas.
- Flaxley Road - An East – West connection providing connectivity to the residential areas to the North.

4.9.8 The network map also includes two broad areas where the number of existing and aspirational ODs indicate a requirement for such a level of permeability that identifying a single route is not practicable. These are:

- Town Centre Core; and
- Selby Rail Station District.

Figure 4-13 - Draft Cycle Network Map: Selby



Sherburn

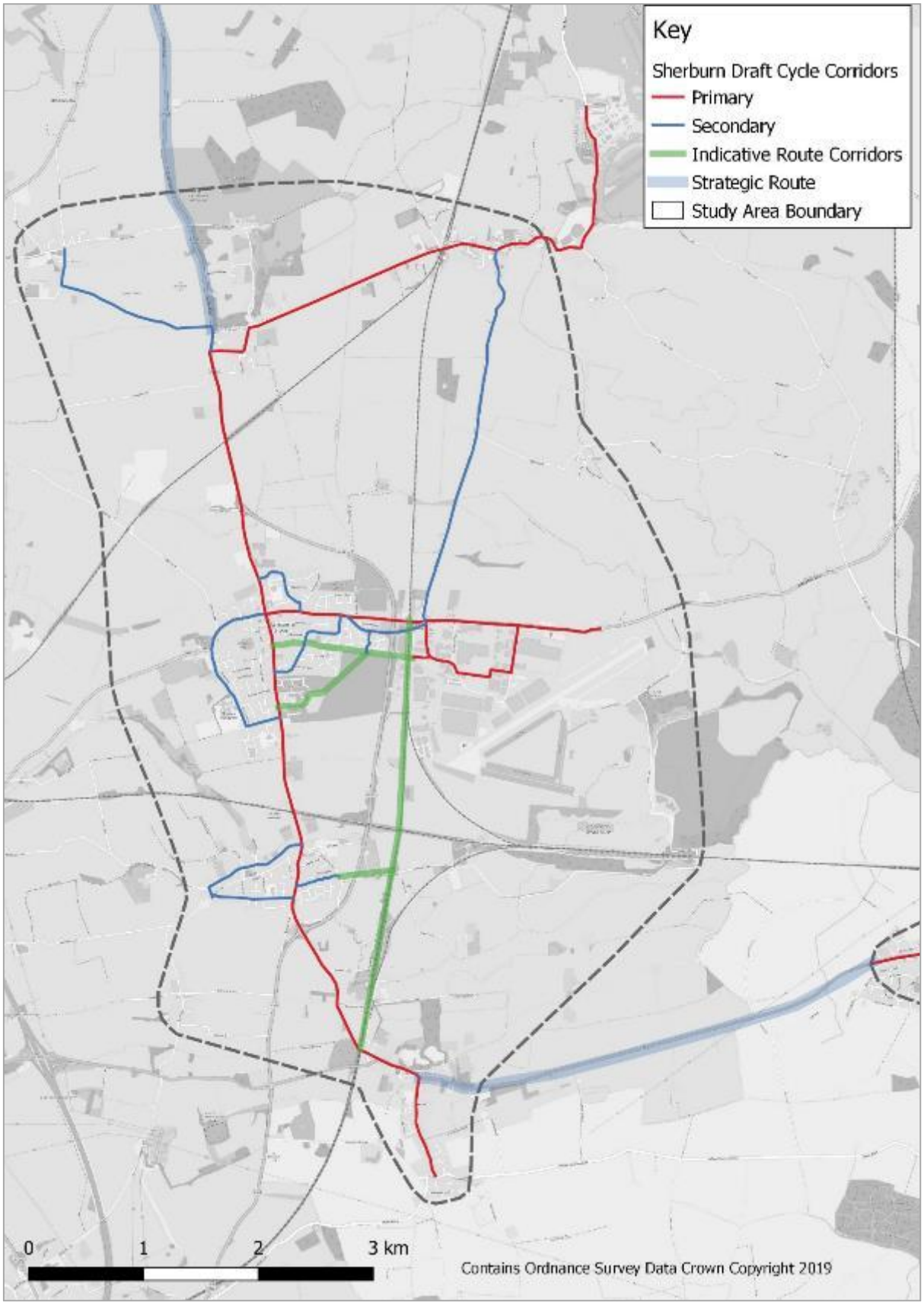
4.9.9 Figure 4-14 presents the draft Cycle Network Map for Sherburn.

4.9.10 The following Primary Routes have been identified:

- A 'North-South Spine' along Low Street, extending from London Road in the north at Barkston Ash to South Milford in the south. This route lies on a key desire line and connects the surrounding villages with local amenities and services.
- An Eastern route connecting Barkston Ash via Common Lane to Church Fenton. This route extends from London Road, eastwards through the village of Barkston Ash and into Church Fenton Railway station.
- Sherburn village to Sherburn Park industrial estate via Sherburn Railway station route – this provides connectivity from the town centre to the station and Industrial estate, supporting a key desire line. This extends due east of Sherburn Town Centre and the North-South route via residential areas.

4.9.11 An aspirational route between Monk Fryston and Sherburn 2 Industrial Estate has been identified, with connections to South Milford and Sherburn village. It is anticipated that the exact alignment of such a route will be determined through the use of the DfT's Route Selection Tool (RST), although there are a number of potential opportunities using the A162 and / or the railway corridors.

Figure 4-14 - Draft Cycle Network Map: Sherburn



Tadcaster

4.9.12 Figure 4-15 presents the draft Cycle Network Map for Tadcaster.

4.9.13 The following Primary Routes have been identified:

- An extensive east – west connection across the study area, broadly between Tadcaster Grammar School and Islington. This route passes through the town centre, and connects key employers with other origin and destination points in close proximity line, serving a variety of different trip purposes; and
- Station Road – This route provides an alternative route around the town centre area and connects residential sites and key employment sites such as the Police Station and Tower Brewery to central east - west cycle link.

4.9.14 The map also includes an aspirational route to the north, connecting to Thorpe Arch industrial estate. While not typical of the other routes included in the NYCC LCWIPs, this route is identified in Sustrans Paths for Everyone (2018) review of the National Cycle Network as a key missing link in the network that could support a number of commuter trips, and its inclusion in the LCWIP network could help align the route with various funding streams.

Figure 4-15 - Draft Cycle Network Map: Tadcaster

4.10 STEP 8 – PRODUCE DRAFT CYCLE NETWORK

4.10.1 Step 8 is the culmination of the previous steps, bring all the data together to formalise a draft network ready for Step 9 - validation and review.

4.11 STEP 9 – VALIDATION AND REVIEW

4.11.1 The validation and review of the draft networks was informed by the baseline evidence, site visits, local knowledge, stakeholder engagement and a review of connectivity between key origins and destinations. The PCT outputs (Government Target scenario) were also used to validate the network in terms of existing and future demand.

4.12 STEP 10 – PRODUCE FINAL NETWORK

4.12.1 The final step is the production of the final Cycling Network Map, which is presented in Section 7.2.

5

WALKING NETWORK DEVELOPMENT

5 WALKING NETWORK DEVELOPMENT

5.1 OVERVIEW

5.1.1 One of the key outputs of Phase 1 of the Selby District LCWIP process is the determination of the Walking Network Map (WNM), which sets out a cohesive potential network for walking. This network is then considered against the baseline evidence in order to identify preferred routes for further development.

5.1.2 The development of the walking network follows the LCWIP Technical Guidance for Local Authorities document (DfT, 2017), and is founded on the principle of connecting people to places, ensuring that the proposed networks correspond to both the routes people currently take and those people are likely to want to take, both now and in the future. This method also helps to identify the long-term vision for the networks while ensuring investment is focused on the key routes and the needs of pedestrians. The resulting outputs are networks that are evidence-based and facilitate strategic development.

5.2 METHODOLOGY

5.2.1 The development of the walking network map can be divided up into an 8-step process. These are as follows:

- Step 1 – Defining the Study Area;
- Step 2 – Mapping Walking Trip Generators;
- Step 3 – Identifying Core Walking Zones;
- Step 4 – Identifying Key Walking Routes;
- Step 5 – Consider a Route Hierarchy;
- Step 6 – Produce a Draft Walking Network;
- Step 7 – Validation and Review; and
- Step 8 – Produce Final Network.

5.2.2 The following sub-sections describe the process undertaken in developing the WNM for the Selby District LCWIP study areas.

5.3 STEP 1 – DEFINING THE STUDY AREA

5.3.1 The first step in developing the network map is to define the extents of the study area.

5.3.2 The study areas used in the determination of the WNM were agreed to focus on the same three distinct areas as the CNM, as shown in Figure 1-1Figure 1-1:

- Selby with Thorpe Willoughby, Brayton, and Barlby / Osgodby;
- Tadcaster; and
- Sherburn.

5.4 STEP 2 – MAPPING WALKING TRIP GENERATORS

5.4.1 The key origin and destination data used in the derivation of cycling origin and destination points in Section 4.4 were again utilised to understand the key ODs in relation to walking. It is considered that, while cycling is likely to enable longer distance journeys and connect OD pairs further afield, the trips generators and attractors remain the same.

5.4.2 These ODs included the following key origin points:

- Residential areas – Lower Super Output Area (LSOA) population-weighted centroids were used as proxy locations for residential areas; and
- Public transport interchanges – these are both origins in terms of people arriving in the study area and destinations people use to travel to wider locations.

5.4.3 Key destinations included:

- Public transport interchanges (as above);
- Principal retail areas;
- Employment concentrations;
- Large grocery shops;
- Hospitals;
- Tourist attractions; and
- Educational institutions.

5.4.4 Figure 4-1 to Figure 4-3 show these key ODs in relation to the Selby District LCWIP study areas.

5.4.5 Future ODs are also considered in the development of the WNM, with the same assumptions applied in the development of both the CNM and the WNM. Section 4.5 details the process of identifying future ODs, while Figure 4-4 to Figure 4-6 illustrate the location of these sites in relation to each study area.

5.5 STEP 3 – IDENTIFYING CORE WALKING ZONES

5.5.1 Following the identification of walking trip generators Core Walking Zones (CWZs) can be defined.

5.5.2 CWZs are areas that consist of a number of walking trip ODs located in close proximity (e.g. town centre, business park, university campus, etc). These CWZs are most likely to attract trips for utility / commuting purposes.

5.5.3 While CWZs may include points of interest (POIs), these locations are considered to predominantly attract trips for leisure and recreational purposes—although it is recognised that these destinations are also likely to accommodate some measure of employment.

5.5.4 The CWZs identified within the LCWIP study areas are listed in Table 5-1.

Table 5-1 - Core Walking Zones

Core Walking Zone	Area	Purpose
Selby Town Centre (local centre proxy)	Selby Town Centre	Commuting/Utilities/Retail
Three Lakes Retail Park	Selby/Staynor Hall	Commuting/Utilities/Retail
York Road Barlby	Barlby	Commuting/Utilities
Brayton	Brayton	Commuting/Utilities
Fox Lane, Thorpe Willoughby	Thorpe Willoughby	Commuting/Utilities
Low Street, Sherburn	Sherburn Town Centre	Commuting/Utilities/Retail
Tadcaster Town Centre	Tadcaster Town Centre	Commuting/Utilities/Retail

5.5.5 Only a single CWZ has been identified in relation to both the Tadcaster and Sherburn study areas. The Tadcaster study area is relatively compact, covering only the urban area of Tadcaster itself. The majority of the study area is within a maximum desirable walking distance (approximately 2km), and therefore only a single CWZ was mapped, highlighting the importance of walking across the whole area.

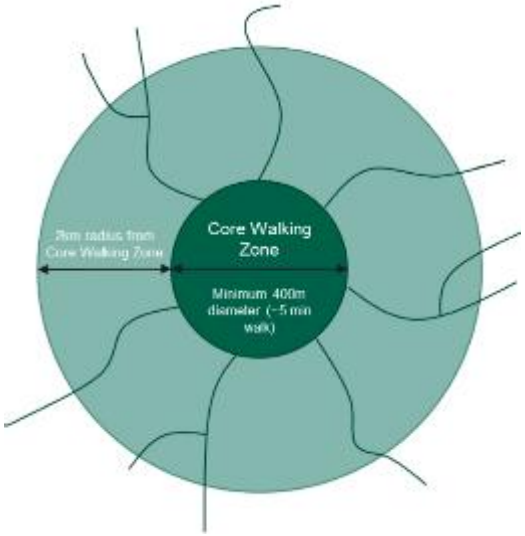
5.5.6 In Sherburn, the study area consists of Sherburn and South Milford as the two main areas of interest, with a number of outlying villages within a maximum desirable cycling distance (circa 5km). However, the distance and nature of the routes between these villages restricts the propensity to walk between them, and therefore only Sherburn itself (including Sherburn Park) is considered to represent a CWZ. Note that South Milford rail station is still considered to be within the maximum desirable walking distance from Sherburn centre.

5.5.7 As per LCWIP guidance, an approximate five-minute walking distance of 400m can be used as a guide to the minimum extents of CWZs. Each identified CWZ has therefore been plotted using a proxy central point, with a GIS-based isochrone tool and the local highway network used to map the CWZ five-minute extents.

5.6 STEP 4 – IDENTIFYING KEY WALKING ROUTES

5.6.1 Following the identification of the CWZs, key walking routes to each zone should then be identified by mapping a 2km isochrone from the central point, considered to be the maximum desirable walking distance from the CWZs[16]. The proportion of journeys made on foot typically decreases significantly beyond this distance.

5.6.2 While each 2km isochrone allows the identification of key walking routes in relation to each individual CWZ, the analysis of overlapping isochrones shows where key walking routes are likely to serve multiple CWZs, and therefore potentially have higher levels of demand.



5.6.3 A GIS-based isochrone tool was used to identify potential walking routes of 2km (approximately a 25-minute journey) for each of the CWZs listed in Step 2.

5.6.4 It should be recognised that there are some limitations to this method; centroids are used as proxies for each OD, and pedestrian movement is unconstrained by infrastructure provision in the same way as vehicles (although the propensity to travel on foot can be heavily supressed by poor quality infrastructure). The isochrone analysis is therefore used to identify movement corridors, within which a combination of stakeholder engagement and site visits are used to identify specific routes for improvement.

5.6.5 Figure 5-1 to Figure 5-3 show the CWZs and respective 2km isochrones in relation to Selby, Sherburn, and Tadcaster study areas respectively.

5.6.6 The CWZs are highlighted in red (representing a 400m or 5 min walk), whilst all walking routes accessible within a 2km radius (approx. 25 min walk) are highlighted in blue.

[16] Providing for Journeys on Foot, CIHT, 2000

Figure 5-1 - Identified Core Walking Zones: Selby

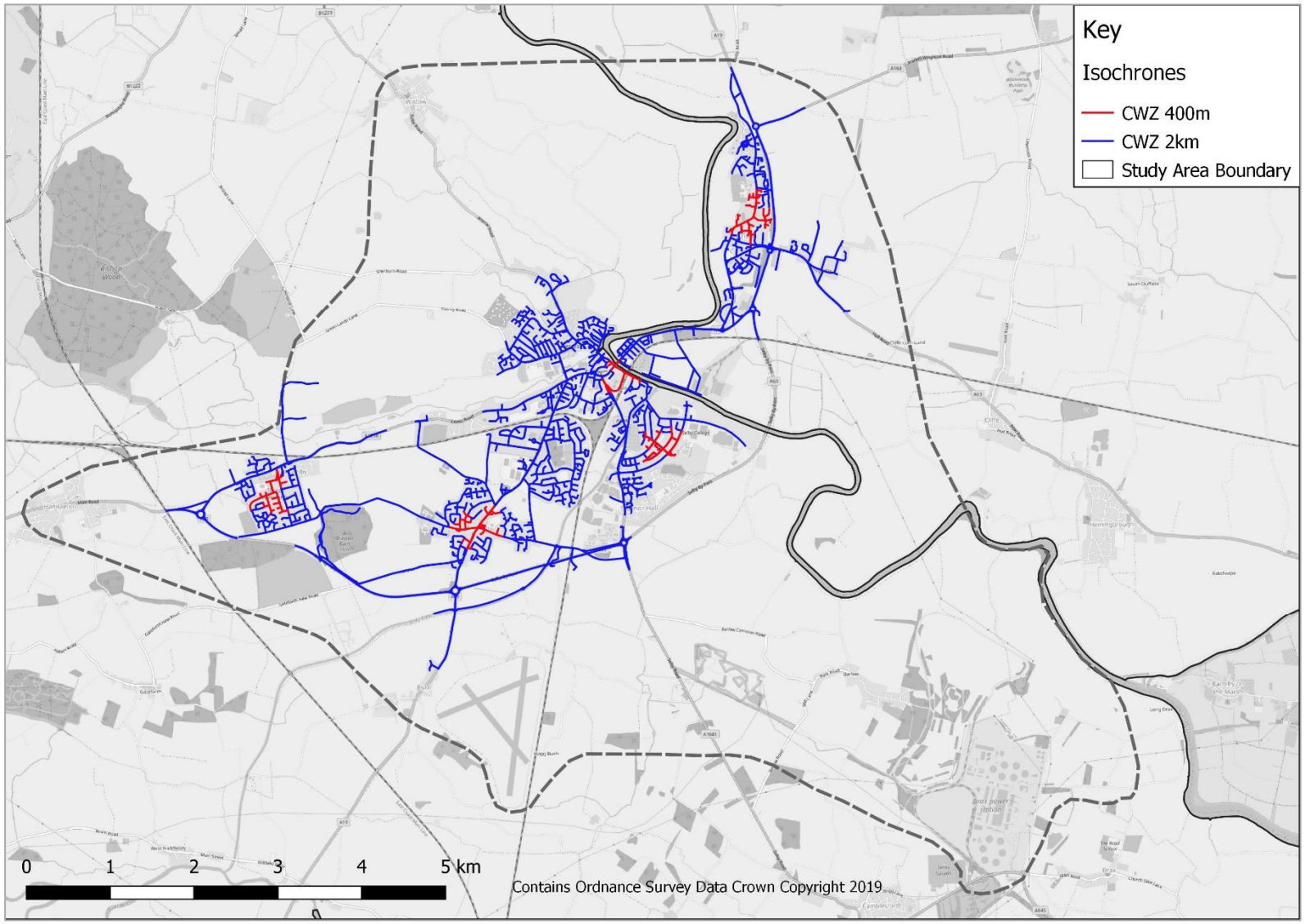


Figure 5-2 - Identified Core Walking Zones: Sherburn

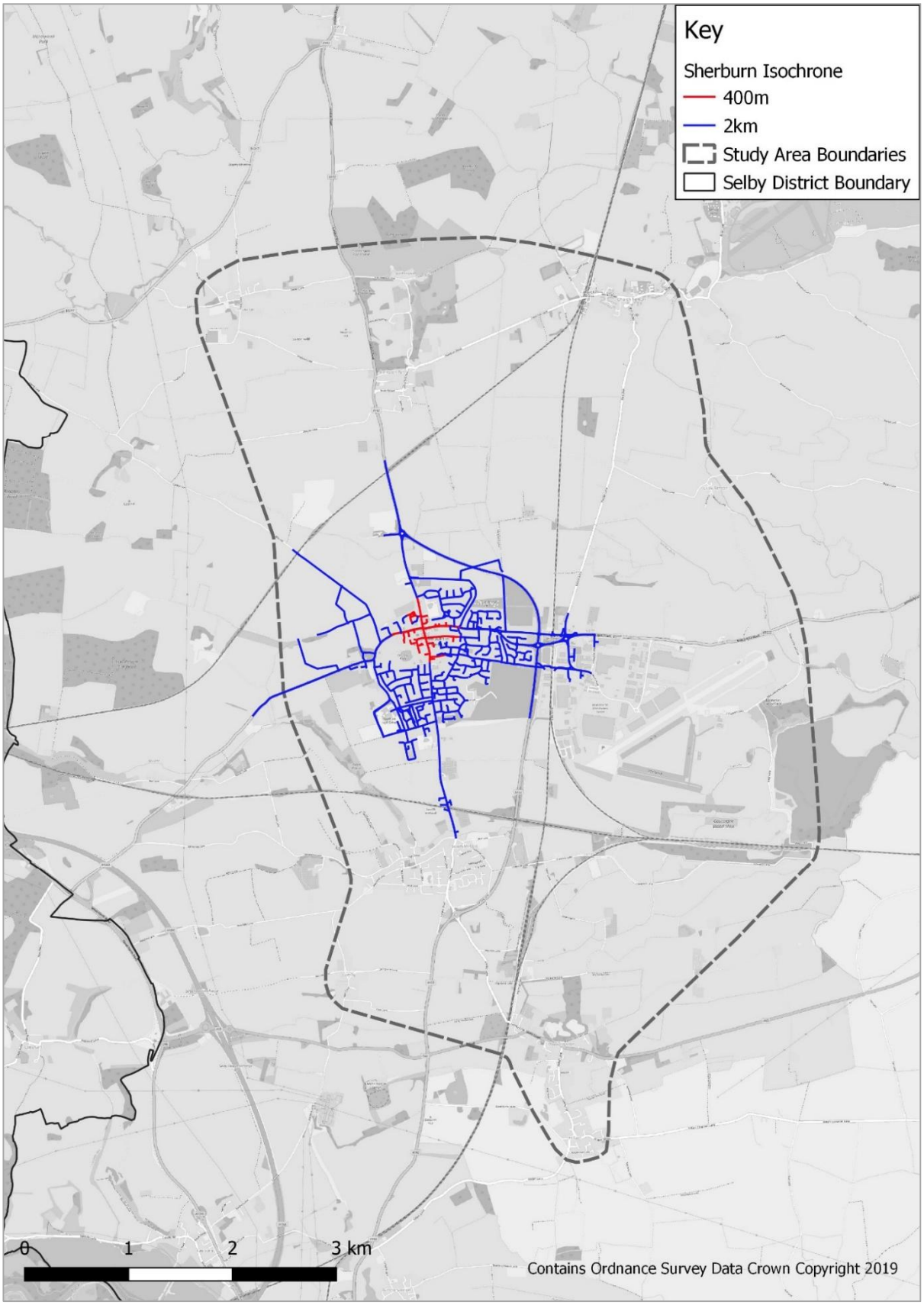
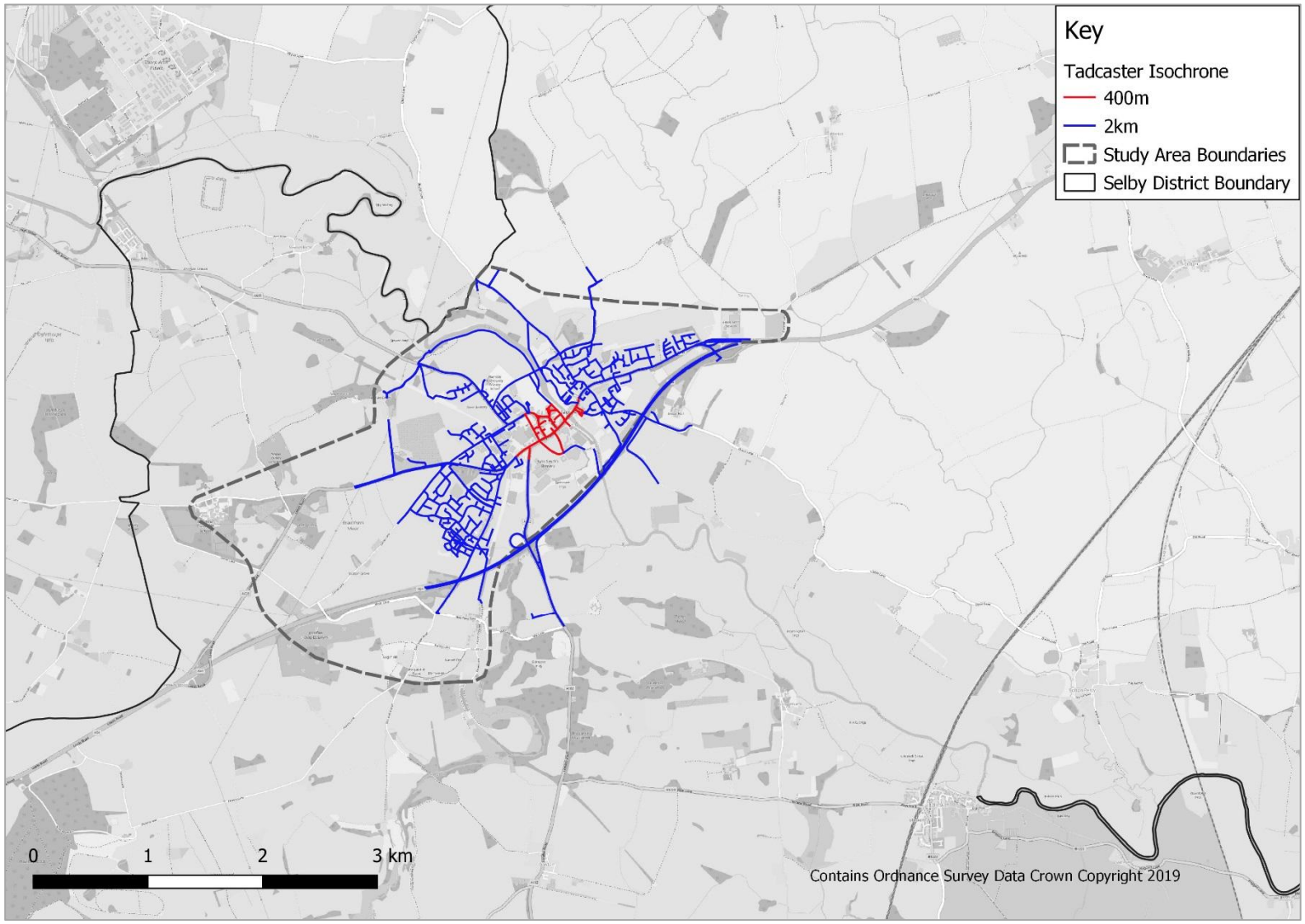


Figure 5-3 - Identified Core Walking Zones: Tadcaster



5.7 STEP 5 – CONSIDER A ROUTE HIERARCHY

5.7.1 Following the identification of key walking routes for each CWZ, each has been prioritised using the definitions provided in the RLG Footway Maintenance Classification[17] as replicated in Table 5-2. Whilst definitions can be tailored to local circumstances, the DfT's LCWIP technical guidance recommends that a defined classification of footways is used as a basis for establishing where to focus improvements to walking infrastructure.

5.7.2 Within this hierarchy the type of infrastructure provided would vary both depending on the link's position in the network hierarchy, and on the type of link, where it connects to, and how it will be used.

Table 5-2 - Footway Hierarchy in 'Well-Maintained Highways'

Category	Name	Description
1(a)	Prestige Walking Zones	Very busy areas of towns and cities, with high public space and street scene contribution.
1	Primary Walking Routes	Busy urban shopping and business areas, and main pedestrian routes
2	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres, etc.
3	Link Footways	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footways	Footways associated with low usage, short estate roads to the main roads and cul-de-sacs.

5.7.3 Prestige, Primary, Secondary and Link Footways have been identified and mapped as these are expected to have the highest demand for walking trips and are the busiest local routes, based on the definitions above. It is therefore considered that these routes would be the focus for improvements.

5.7.4 It should be noted that that these assignments should be considered indicative in the initial stages, and alternative or complementary routes within the corridors may come forward through stakeholder engagement, detailed assessment and design.

5.7.5 Further discussion on the identification of routes for each footway hierarchy category are provided below, respective to their location in the study area.

[17] Well-maintained Highways: Code of Practice for Highway Management 2005 Edition, updated September 2013, Roads Liaison Group- London: TSO

5.8 STEP 6 – PRODUCE A DRAFT WALKING NETWORK

5.8.1 Following the methodology described in Steps 1-4, a draft Walking Network Map has been developed for each study area, with links categorised based on the network hierarchy established in Step 4.

5.8.2 The draft Walking Network Map for each Selby District LCWIP study area is discussed in the following subsections.

5.8.3 Figure 5-4 presents the draft Walking Network Map for Selby. The key corridors identified are summarised as:

Prestige / Primary Walking Routes

- 'Town Centre Route' - this route bisects the Town Centre Core along Gowthorpe and onto Finkle Street, which facilitates connectivity to a large number of key services and local amenities. It also provides opportunities to connect with a number of key primary routes and into Olympia Park.
- Doncaster Road Corridor– from South Brayton to Flaxley Road. The route would facilitate connectivity between the village of Brayton and Selby Town Centre, as well as key trip destination points including Selby District Council, Brayton High School and Selby War Memorial Hospital. There are further connections to secondary and link routes either side of the corridor, enhancing permeability along key routes into residential sites in Brayton and southern Selby. There is also a western spur from this route towards Selby Train Station, and an additional northern link into the town centre area via Gowthorpe.
- Bawtry Road – this western spine route is a primary north- south corridor between Selby Town Centre and Selby Business Park via the Three Lakes Retail Park. The route provides opportunities to link with Secondary networks and link networks to improve connectivity in the south east of the town and onto Selby College.
- New Street/Barlby Road – this route provides an eastward connection from the Selby Town Centre area along the A19 to Barlby, with potential spurs off towards Olympia Park. It also supports additional primary and prestige corridors into the Selby Railway Station District.

Secondary Walking Routes

- Leeds Road – a connection to prestige routes within the Selby Town Centre area to Thorpe Willoughby, providing further connectivity into the village of Thorpe Willoughby.
- Barlby Road – this route extends from A19 / Barlby Road junction facilitating access to a key primary link into Selby town centre. This route supports onward journeys north of Barlby and within the village of Barlby itself.
- Flaxley Road/Cross Hills Lane – this link connects the northern end of the primary network at Scott Road to residential sites to the north-west of the town centre on Flaxley Road and Cross Hills Lane; these links will also support potential aspirational developments in this area.
- Millgate/Charles Street – facilitating trips from residential areas north of the town centre to prestige walking networks within the town centre area.
- Canal View – this route offers a connection west of the Selby Canal with potential onward connections into residential areas on the opposing side of the railway line.
- Abbot's Road/Petre Ave/Parkin Ave – these routes would facilitate trips to Selby college and employment sites which sit along the river Ouse.
- Larkefield Road – a short connection around the Selby Memorial Hospital facilitating movement between Doncaster Road and residential estates westwards.

- Westbourne Road – an eastern connection off Doncaster Road, providing onwards connections to residential areas to the south of Selby town centre.

Link Footways

5.8.4 The potential routes identified above create a dense network of Primary and Secondary Walking Routes, considered to represent a framework of key routes across the study area. A number of complementary Link Footways could increase this density, including:

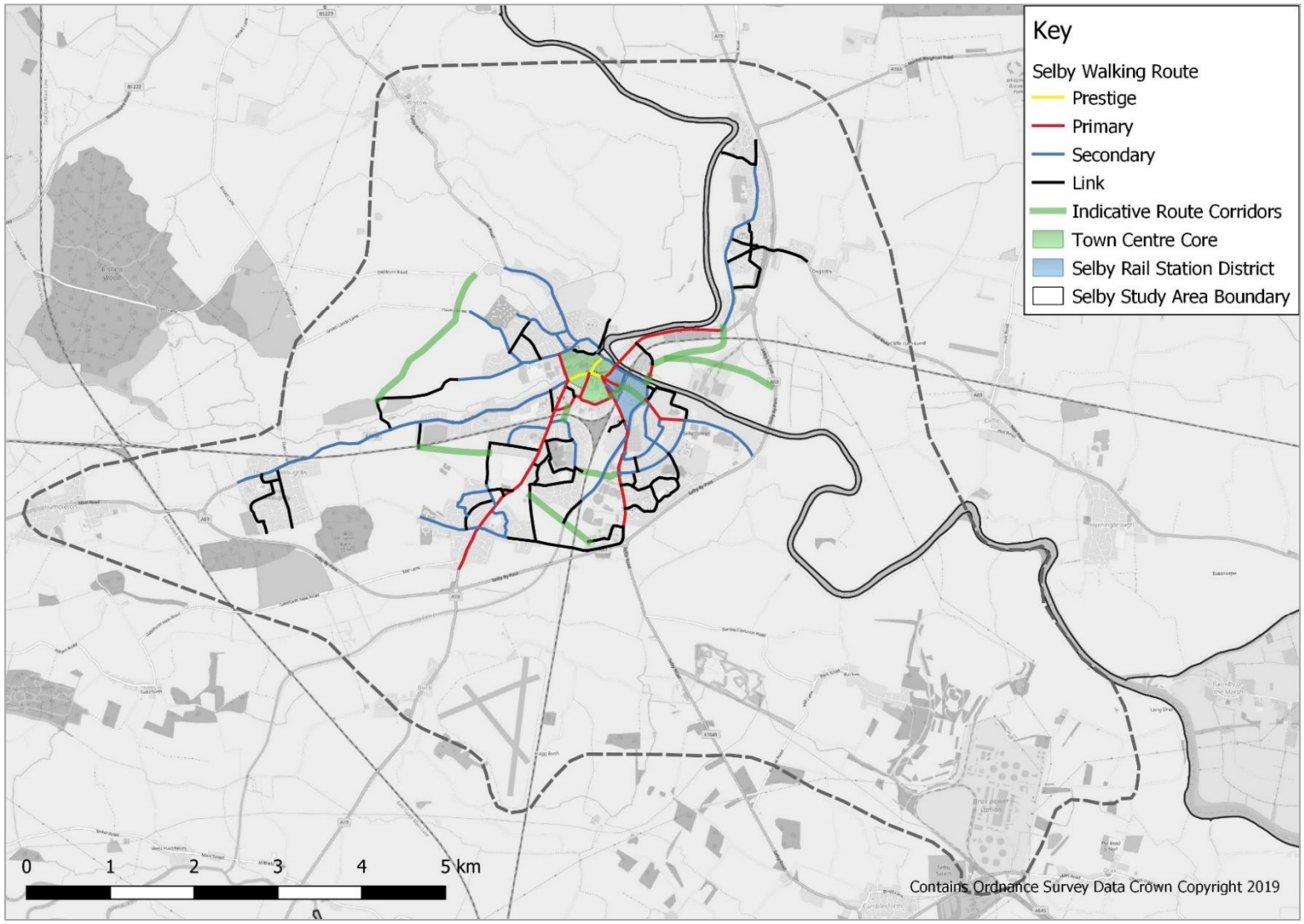
- Baffam Lane/Parkways;
- Green Lane;
- Brayton Lane;
- Hawthornes Road/Blackthorn Close;
- Hull Road;
- Haig Street; and
- Myrtle Ave

Indicative Routes

5.8.5 The map includes a number of potential routes which do not currently exist. The broad alignment shown indicates a potential route along the desire line that could provide a high level of benefit, although this should be determined through detailed appraisal. These include:

- A northern orbital route linking the footpaths around Leeds Road / Selby Dam to Sherburn Road via Flaxley Road;
- A new cycle bridge over the railway at Westbourne Road, offering a safer and more desirable alternative to the parallel A19 level crossing;
- A new cycle bridge over the TPT, connecting into the Three Lakes retail park and serving multiple desire lines between the east and west of the town;
- A new cycle bridge over the railway between the TPT and Westbourne Road, likely via Ryedale Way, which could align with potential new development and complement a new bridge into the Three Lakes retail park;
- A southern route between Staynor Hall and employment on East Common Lane, which could also connect into Selby College;
- Two ‘desire line’ connections to the west of the town, creating additional permeability;
- A new route from Portholme Road to the rail station, avoiding the constrained existing route over the Brayton railway bridge;
- A new desire line route through the southern Rail Station District, potentially including a southern access into the railway station via platform 2; and
- A network of routes through Olympia Park, demonstrating the opportunity offered by the site to create a high-quality active travel network that makes walking and cycling the natural choices.

Figure 5-4 - Draft Walking Route Hierarchy: Selby



Sherburn

5.8.6 Figure 5-5 presents the draft Walking Network Map for Sherburn. The key corridors identified are summarised as:

Prestige / Primary Walking Routes

- A single primary walking route is identified around the main shopping area in the town, spanning out from the junction of Moor Lane/Kirkgate/Finkle Hill/Low Street. This encompasses the Core Walking Zone in the study area and is likely to have the highest concentration of walking trips for all purposes.

Secondary Walking Routes

- A key route along Moor Lane and Bishopdyke Road provides connectivity to Sherburn Park industrial estate from the town centre, also facilitating trips to Sherburn train station and the residential areas to the east;
- A parallel connection along the PROW to the south of Bishopdyke Road could support a relatively high number of commuters, if potential new connections were found through the ongoing residential development to the south east in conjunction with enhanced access along the existing paths;
- A secondary parallel route to Low Street extending around the western periphery of the town, providing a quieter route away from the heavily main trafficked roads and enhancing connectivity on foot to Sherburn High School; and
- A modest network of secondary routes in South Milford, and a single route through the centres of Monk Fryston and Church Fenton, representing their relative importance in the hierarchy across the study area.

Link Footways

5.8.7 The potential routes identified above create a dense network of Primary and Secondary Walking Routes, considered to represent a framework of key routes across the study area. A number of complementary link footways could increase this density, including:

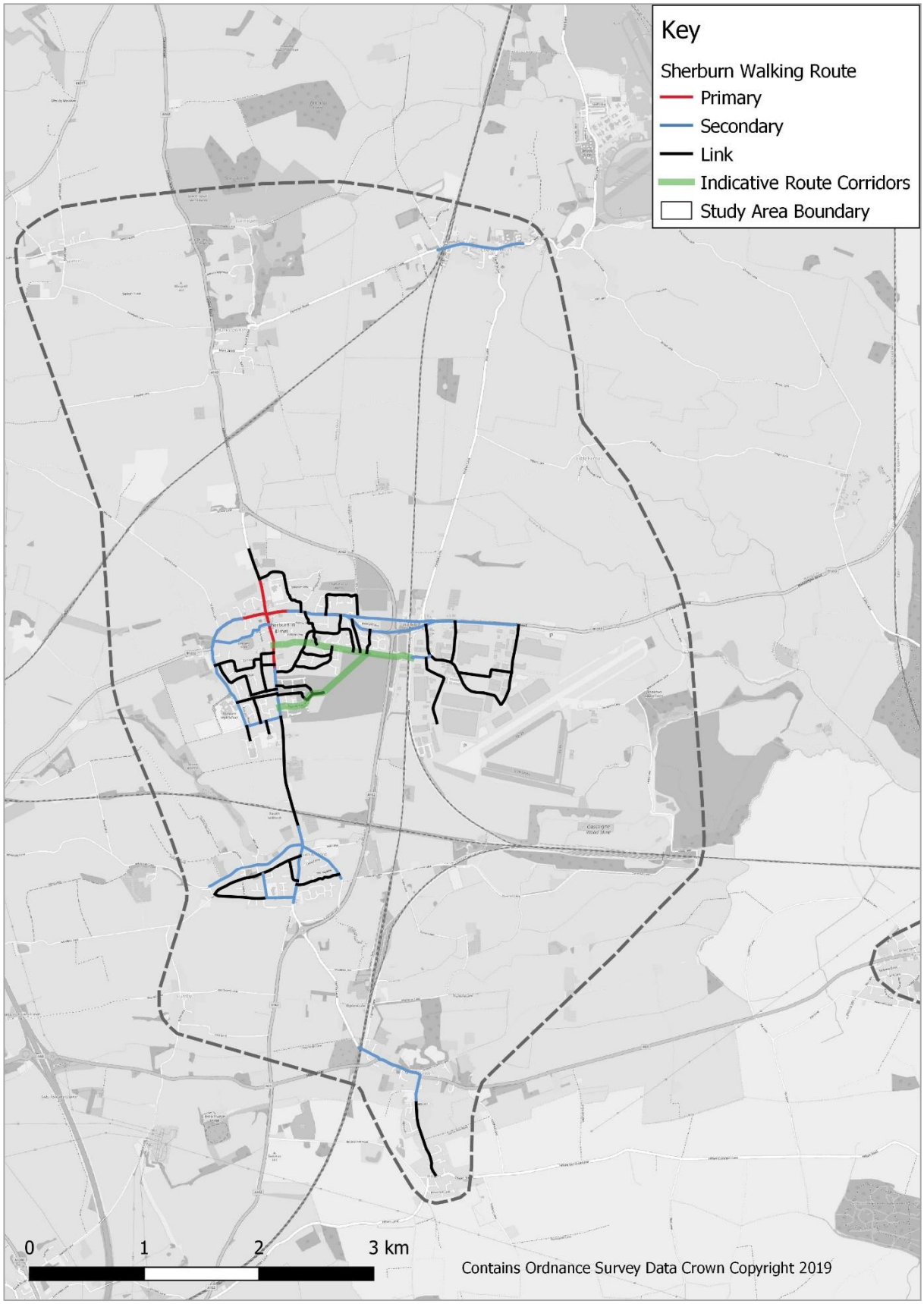
- The majority of the existing routes through Sherburn Park industrial estate, which need to facilitate safe active travel in order to promote trips to the site on foot or by bike;
- Key routes within the various residential estates, such as the Fairway / Pasture Way; and
- A dense network of ‘cut-throughs’ (also known as ‘snickets’ or ‘ginnels’) already exists, which could be enhanced to increase perceptions of safety and adopt an important supporting role.

Indicative Routes

5.8.8 The map includes a number of potential routes which do not currently exist. The broad alignment shown indicates a potential route along the desire line that could provide a high level of benefit, although this should be determined through detailed appraisal. These include:

- A direct route between Bramley Park Avenue and Moorland Road, facilitating connections from South Milford, South Milford Rail station, and the south-west of Sherburn to the Sherburn Park industrial estate and Sherburn rail station; and
- A new direct route along the PROW running adjacent to Green Dike into Sherburn Park industrial estate.

Figure 5-5 - Draft Walking Route Hierarchy: Sherburn



Tadcaster

5.8.9 Figure 5-6 presents the broad key walking route corridors in Tadcaster. These corridors are summarised as:

Primary / Prestige Walking Routes

- The A659 through the urban area of Tadcaster, including the High Street / Bridge Street central business district as a Prestige route; and
- A parallel route along Station Road / Westgate, creating a circular route where this joins the A659 to the west and via Chapel Street and Kirkgate to the east.

Secondary Walking Routes

- A number of radial routes extend out from the town centre providing connectivity to key employment sites, such as the A162 and New Street around the John Smith's Brewery complex, and Wetherby Road to the north, adjacent to the Tower Brewery;
- To the west, a number of routes including Stutton Road and Garnet Lane provide connectivity through residential streets;
- To the east, York Road and Wighill Lane / Oxon Lane provide connectivity to the residential areas on the other side of the River Wharfe; and
- The newly refurbished Tadcaster Viaduct and the connecting links provide an opportunity to create a secondary network of parallel off-road routes and a traffic-free alternative to Tadcaster Bridge.

Link Footways

5.8.10 The potential routes identified above create a dense network of Primary and Secondary Walking Routes, considered to represent a framework of key routes across the study area. A number of complementary Link Footways could increase this density, including:

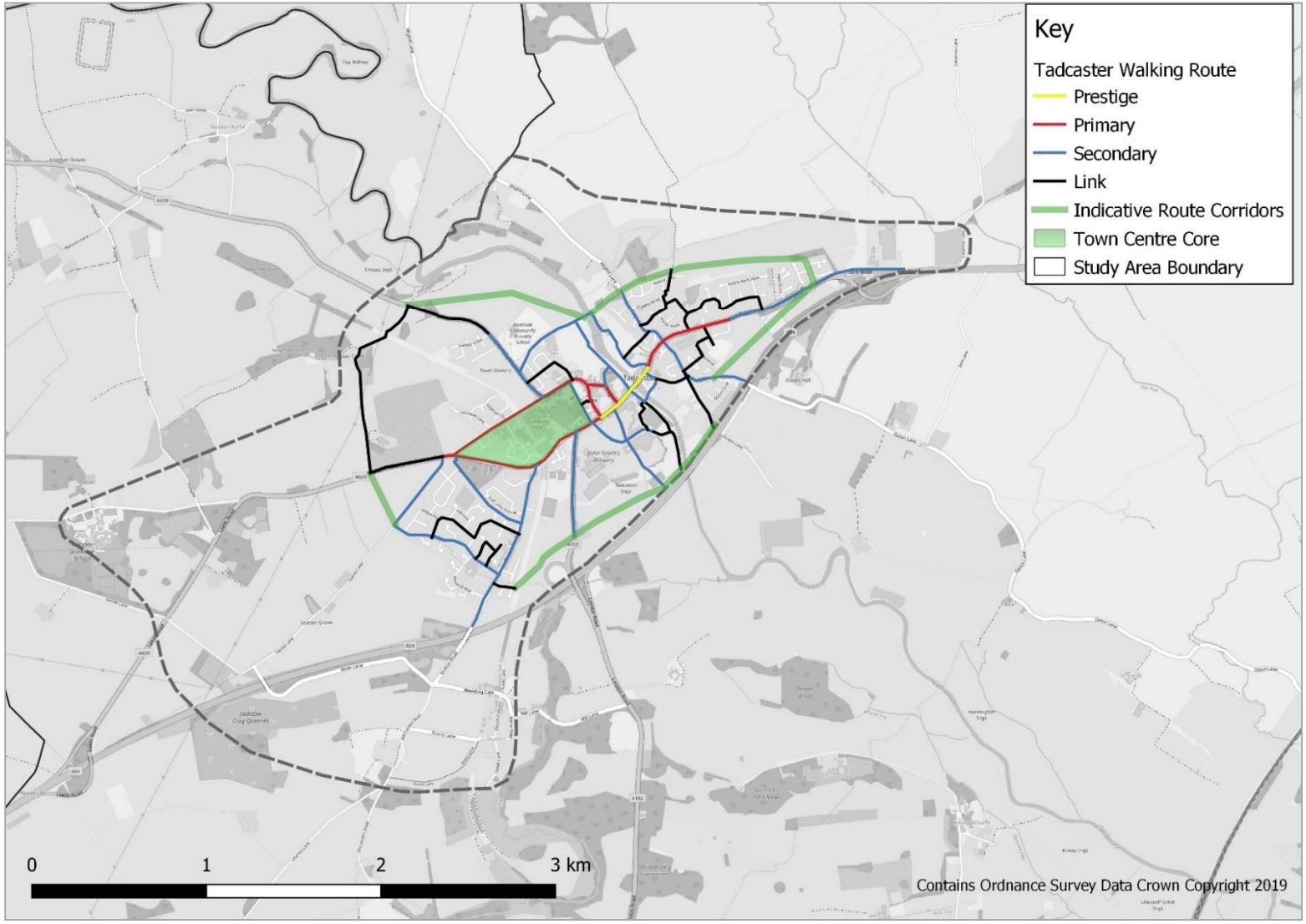
- Parkland Drive / Prospect Drive and Rosemary Row through the eastern residential areas;
- Wharfe Bank Terrace, adjacent to the River Wharfe;
- Broom Road / Calcaria Crescent through the western residential areas; and
- The existing bridleway between Leeds Road and Kelcbar Hill via Smaws Court.

Indicative Routes

5.8.11 The map includes a number of potential routes which do not currently exist. The broad alignment shown indicates a potential route along the desire line that could provide a high level of benefit, although this should be determined through detailed appraisal. These include:

- A southern orbital route from Stutton Road to Ouston Lane, connecting to various radial routes and providing an alternative route to the highly trafficked roads through the centre of Tadcaster; and
- Two parallel routes to York Road, to the north and to the south.

Figure 5-6 - Draft Walking Route Hierarchy: Tadcaster



5.9 STEP 7 – VALIDATION AND REVIEW

5.9.1 The validation and review of the draft networks was informed by the baseline evidence, site visits, local knowledge, stakeholder engagement and a review of connectivity between key origins and destinations. The emerging WNM should be also reviewed against the existing Selby Footway Maintenance log to assess the prioritisation of links, and to suggest potential amendments where required.

5.10 STEP 8 – PRODUCE FINAL NETWORK

5.10.1 The final step is the production of the final Walking Network Map, which is presented in Section 7.3.

6

STAKEHOLDER ENGAGEMENT

6 STAKEHOLDER ENGAGEMENT

6.1 OVERVIEW

6.1.1 The DfT's LCWIP guidance highlights the importance of stakeholder engagement throughout the development of the LCWIP.

6.1.2 Initial stakeholder engagement for the Selby District LCWIP took place during the baseline review stage through an internal workshop held on Thursday 7th February 2019, where the project team engaged with key stakeholders (such as NYCC and SDC officers) to gain a detailed insight in terms of challenges and opportunities for developing the respective networks within the study area.

6.1.3 Following the development of the draft cycling and walking networks, an external workshop was held at SDC offices on Wednesday 27th March 2019 with the following objectives:

- To gain stakeholder input on the draft networks; and
- To identify short term priorities for intervention.

6.1.4 The workshop format provided an opportunity for stakeholders to review and validate the draft networks developed by the project team, aiding the refinement of the networks through contribution of local knowledge and expertise.

6.1.5 The attendees to the external workshop included staff from NYCC and SDC who were involved during the baseline engagement, and the invitation was opened up to external stakeholders who were identified by NYCC and SDC as being important to the development and delivery of the cycle and walking network. A full list of invitees and attendees is presented in Table 6-1.

6.1.6 The workshop was split into two distinct sections, with the first focusing on cycle network development and the second focussing on walking network development. Both sessions followed the same format and structure.

Table 6-1 - Selby District LCWIP External Workshop Attendees

Name	Role
Phil Freestone	WSP
Howard Kinneavy	WSP
Angela Crossland	SDC
Pauline Adams	SDC
Ryan King	SDC
Sam Raine	NYCC
Cristina Roberts	Collaborative Schools
Dani Penney	Inspiring Healthy Lifestyles
Hannah Beaumont	Trans Pennine Trail
Jamie Kirkbride	Arriva Transport
Apologies	
Julian Rudd	SDC

Name	Role
Andy Graham	SDC
Eliot Murray	Walking for Health
Charlee Bewsher	Positive Youth Bike Library
Mandy Loach	Trans Pennine Trail
Graham Meiklejohn	Trans Pennine Rail
Ginny Mackay	Potter Group
Jane Breach	Drax
Emily Havercroft	Disability Group

6.2 DRAFT CYCLE NETWORK VALIDATION AND REVIEW

One of the primary aims of the external workshop was to review the work WSP had already undertaken in terms of draft network development. To do this, the first group activity was a validation exercise of both the route hierarchy definitions and the draft cycle network.

CYCLE NETWORK HIERARCHY DEFINITIONS

6.2.1 The network hierarchy definitions that were presented at Step 7 of the cycle network development process were presented to stakeholders for their consideration.

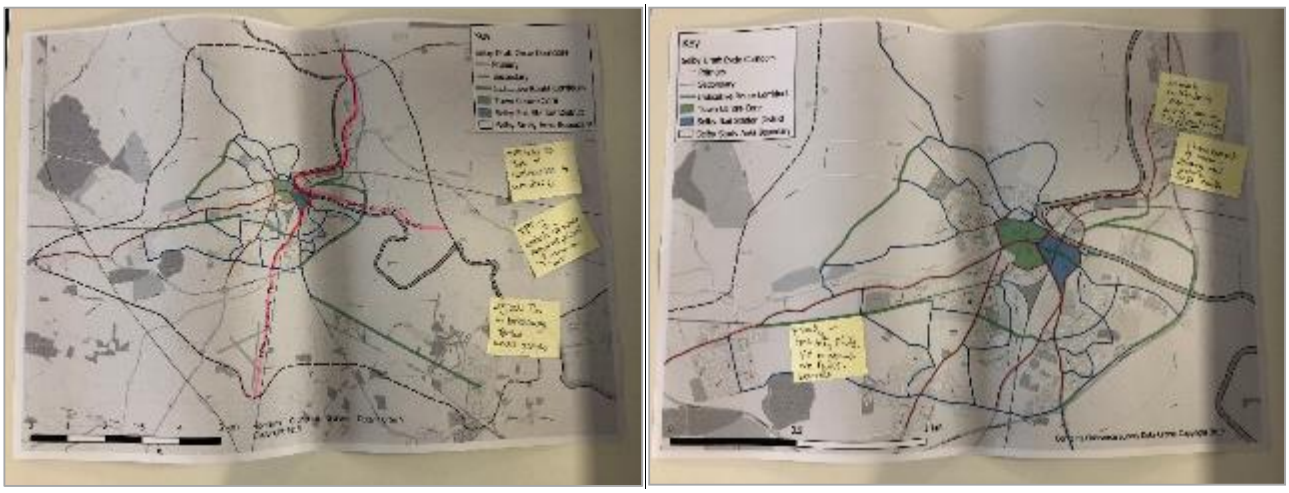
6.2.2 It was noted by NYCC that these definitions should remain consistent with similar ongoing cycling and walking infrastructure studies across the county, but that small amendments could be made to reflect the locally specific requirements for Selby. The consensus agreed with this comment with no further suggestions put forward.

NETWORK COMMENTS & AMENDMENTS

6.2.3 Stakeholders were asked to review the draft cycle network and record any comments, additions or amendments directly on to the network plans. Amendments could include changing the status of a link in terms of its level on the hierarchy, adding to the route or removing links from the network.

6.2.4 Figure 6-1 displays an example of the comments and annotations on the draft network from the various attendees.

Figure 6-1 - Group Exercise - Cycle Network Review



CYCLE NETWORK PRIORITIES

6.2.5 For the second task, stakeholders were asked how they would prioritise sections of the draft cycle network, should funding become available in the short-term (i.e. 2-3 years). Attendees were asked to annotate and label directly onto the plans, as per Figure 6-1 above.

6.2.6 The outputs of the exercise indicated a wide variety of spatial priorities across the urban area, including interventions on the existing highway network, upgrades to and new off-road routes, and within aspirational development sites.

Table 6-2 - Draft Cycle Network Maps: Amendments and Priorities

Ref.	Comment	Include in Final Draft Network plan	Rationale
Selby Cycle Network Map Comments			
CN1	Prioritise routes around schools and identify and provide safe routes as part of development process for new sites	Y/N	Access to schools is considered, with main routes identified as at least secondary routes; however, the LCWIP is strategic in nature and does not consider all possible routes, or replace the assessment process associated with new development
CN2	Add TPT links to places further afield, such as York, Hull, and Doncaster	N	The extent of the TPT within the LCWIP study area is included where this could contribute toward the LCWIP's aim of encouraging more journeys by cycle for everyday purposes. Longer distance routes are generally associated with leisure use or some commuting.
CN3	Upgrade TPT to Bridleway status where possible	Y	Permitting cycling along the TPT within the study area is likely to be a high priority.
CN4	Prioritise radial routes into Selby (A19 Doncaster Rd, TPT, Barlby Rd, Leeds Rd)	Y	Will inform the emerging priority routes
CN5	Prioritise routes around Selby town centre and immediate urban area within the next 2-3 years	Y	Will inform the emerging priority routes
CN6	Prioritise Brayton Lane to A63 roundabout	Y	Will inform the emerging priority routes
CN7	Prioritise Brayton Lane to Selby College route	Y	Will inform the emerging priority routes
CN8	Potential to extend route to Camblesforth	N	This route is beyond the SDLCWIP study area and is unlikely to attract multiple trip purposes.
CN9	Prioritise connections to Selby rail station / bus station	Y	Note connections to the rail station are the focus of the emerging TCF work, and unlikely to also form part of the SDLCWIP Phase 2.
CN10	Ensure connectivity to existing cycle network, particularly the TPT	Y	Connections to the existing network, where this exists, is likely to be complementary to use of either, particularly in regard to the TPT. However, it should be noted that where existing infrastructure is substandard or in the wrong location connectivity should not be prioritised simply for the sake of it.
CN11	Change Station Road hierarchy to Primary	N	Station Road is considered within the Rail Station District – it is considered that this broad area would benefit from maximum permeability, rather than one distinct priority route.
Sherburn Cycle Network Map Comments			
CN1	Prioritise route between Sherburn and South Milford rail station	Y	Will inform the emerging priority routes
CN2	Prioritise route between Sherburn and Barkston Ash	Y	This route could be a 'quick win' using existing infrastructure and will inform the emerging priority routes.

Ref.	Comment	Include in Final Draft Network plan	Rationale
CN3	Prioritise connections to Sherburn 2, particularly noting severance of A162 and access via Sherburn rail station	Y	Will inform the emerging priority routes
CN4	Identify route between South Milford rail station and Sherburn 2	Y	Will inform the emerging priority routes
Tadcaster Cycle Network Map Comments			
CN1	Longer term priority to identify 'northern arc' across potential development sites	Y	Will inform the emerging priority routes
CN2	Priority to increase permeability and safe access to the town centre	Y	Will inform the emerging priority routes

EMERGING CYCLING PRIORITY ROUTES

6.2.7 The outputs of the exercise indicated a wide variety of spatial priorities across the urban area, including interventions on the existing highway network, upgrades to and new off-road routes, and within aspirational development sites. Those identified as the highest priority are broadly summarised as:

Table 6-3 - Draft Cycle Network Maps: Emerging Intervention Priorities

Emerging Priority	Description
Selby Emerging Priorities	
Include the Trans Pennine Trail as a formal part of the walking and cycling network, while prioritising improvements.	The Trans Pennine Trail is currently primarily a leisure-based route, with infrastructure that reflects this use. The route offers a quiet parallel alternative to Bawtry Road and a crossing point over the Doncaster rail line, and could offer significantly higher utility amenity with commensurate infrastructure.
Focus on radial corridors into Selby town centre	Selby has a few key radial routes into the town centre spanning outwards to the outlying villages. Each of these is a key route along a primary desire line, generally featuring high traffic flows and average speeds, but lacking safe and convenient cycling infrastructure.
Prioritise safe formal routes to Selby college from the west	Selby college is severed from Brayton and the dwellings in the west of Selby by the canal, Doncaster railway line, and the rural nature of the desire line route. Formalising a safe and convenient route would have significant benefit for these users and other trip purposes.
Sherburn Emerging Priorities	
Look to connect South Milford rail station with Sherburn 2 along the most direct route	South Milford station is more heavily used in comparison with Sherburn, but lacks direct and convenient connections to Sherburn village and Sherburn 2 industrial estate.
Tadcaster Emerging Priorities	
Lessen the impact of delivery vehicles on routes in Tadcaster, providing alternative safe routes where possible	Tadcaster suffers from high proportions of HGVs associated with the breweries and other business, with the highway often designed to accommodate the movements of these vehicles. Providing safer alternatives may be more feasible than looking to accommodate all users within the highway.

6.3 DRAFT WALKING NETWORK VALIDATION AND REVIEW

6.3.1 Part 2 of the workshop followed the same format as the first session, but focussed on reviewing the network development process in regard to walking. The first group activity was a validation exercise of both the route hierarchy definitions and the draft walking network.

WALKING NETWORK HIERARCHY DEFINITIONS

6.3.2 The network hierarchy definitions that were presented at Step 4 of the walking network development process were presented to stakeholders for their consideration. The definitions provided reflected those proposed in the DfT's LCWIP guidance, which were taken from the RLG Footway Maintenance Classification.

6.3.3 Stakeholders were invited to offer suggestions to adapt these to reflect the locally specific requirements for Selby; however, the consensus was the definitions should follow the recommendations in the LCWIP document at this stage.

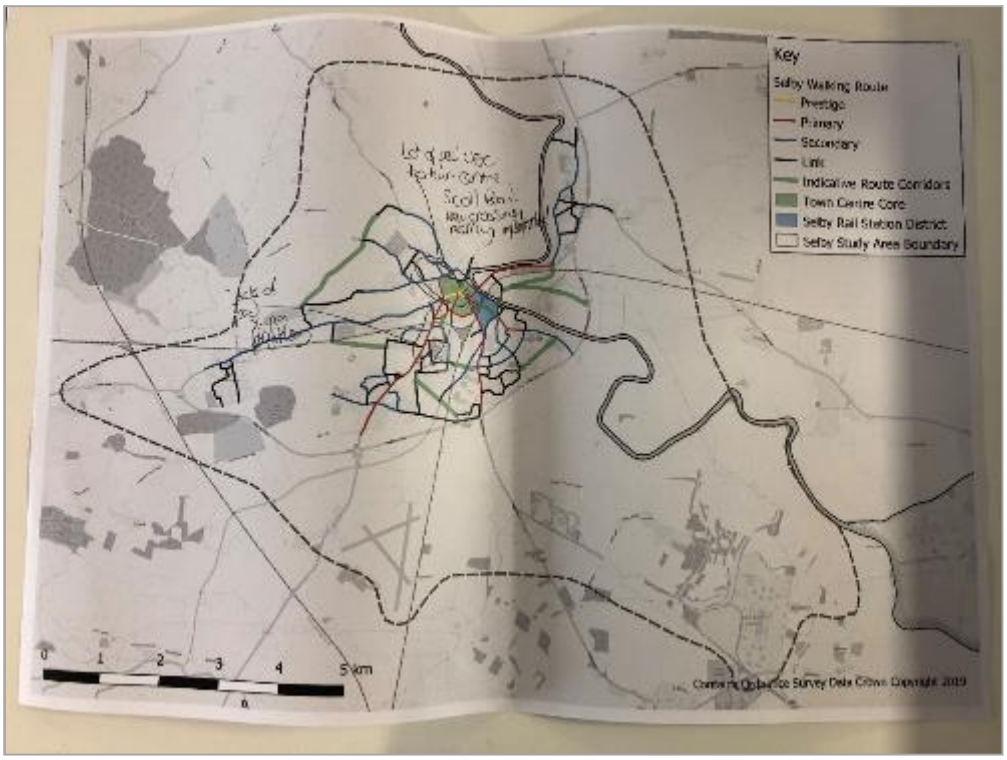
NETWORK COMMENTS AND AMENDMENTS

6.3.4 Stakeholders were invited to review the draft walking network and record any comments, additions or amendments directly on to the network plan.

6.3.5 Whilst stakeholder broadly agreed with the proposed network and the evidence underpinning this, a number of comments were received for consideration.

6.3.6 Figure 6-2 displays the outputs of the network plan review exercise, showing examples of the comments and annotations from the working groups.

Figure 6-2 - Group Exercise - Walking Network Review



WALKING NETWORK PRIORITIES

6.3.7 As with the first session, attendees were then asked to participate in a prioritisation exercise, considering which corridors, links or junctions they felt should be prioritised in the short-term (2–3 years) if funding should become available. Attendees were also asked to consider the wider strategic priorities for the walking network, which may influence the identification of key links, junctions, or corridors for development.

6.3.8 Stakeholders were asked to draw and annotate on the draft walking network plans to show which areas they considered should be given priority. Verbal comments were also captured by the group facilitators.

6.3.9 The comments received on the spatial priorities are listed below. Table 6-4 indicates whether the comments were taken forward for consideration as a priority and if not, the rationale for why they were not included.

Table 6-4 - Draft Walking Network Maps: Amendments and Priorities

Ref.	Comment	Include in Final Draft Network plan	Rationale
Selby Walking Network Map Comments			
WN1	Prioritise a route between Flaxley Road and Ousegate potentially including Millgate and Water Lane	Y	The broad alignment will inform the emerging priority routes
WN2	Prioritise key junctions such as the A19 Doncaster Road level crossing, Brook St / Gowthorpe signalised junction, and Denison Rd canal bridge	Y	Will inform the emerging priority routes
WN3	Prioritise route between pedestrian areas in the north and Selby town centre, particularly focussing on Scott Rd.	Y	The broad alignment will inform the emerging priority routes
WN4	Prioritise interventions on A19 Doncaster Road, focussing on severance and lack of crossing facilities	Y	Will inform the emerging priority routes
Sherburn Walking Network Map Comments			
WN1	Prioritise improvement at Kirkgate / Low Street signalised junction	Y	Will inform the emerging priority routes

Ref.	Comment	Include in Final Draft Network plan	Rationale
WN2	Consider how to enhance existing access via 'ginnels'	Y	Will inform the emerging priority routes
WN3	Prioritise connections to Sherburn 2, particularly noting severance of A162 and access via Sherburn rail station	Y	Will inform the emerging priority routes
WN4	Identify route between South Milford rail station and Sherburn 2	Y	Will inform the emerging priority routes
Tadcaster Walking Network Map Comments			
WN1	Improve access across Tadcaster Bridge	Y	Will inform the emerging priority routes
WN2	Priority to increase permeability and safe access to the town centre	Y	Will inform the emerging priority routes

EMERGING WALKING PRIORITY ROUTES

6.3.10 Table 6-5 lists emerging priorities for further development based on outputs from the workshop:

Table 6-5 - Draft Walking Network Maps: Emerging Intervention Priorities

Emerging Priority	Description
Selby Emerging Priorities	
Improve access from the residential areas in the north of Selby to the town centre and onward destinations	A number of emerging priorities identify connectivity from the residential areas in the north of Selby, particularly to the town centre. Any identified route should align with the TCF proposals at the rail station district and provide an opportunity for onward connectivity to Ousegate and Olympia Park. The specific alignment will need to be determined.
Improve the A19 Doncaster Road and various associated pinch points	This is the main route from Brayton to Selby, and experiences high traffic levels in peak periods, as well as average speeds unconducive to cycling. However, there are a number of pinch points and a lack of formal controlled crossing facilities, particularly along the various desire lines.
Sherburn Emerging Priorities	
Prioritise improvement at Kirkgate / Low Street signalised junction	This junction is in the centre of Sherburn close to the majority of facilities, yet is considered to offer a poor pedestrian experience.
Prioritise connections to Sherburn 2, particularly noting severance of A162 and access via Sherburn rail station	Sherburn and Sherburn 2 industrial estate are effectively severed by the highway network between the two, with a lack of high-quality infrastructure for active modes and
Tadcaster Emerging Priorities	
Improve access across Tadcaster Bridge	Tadcaster bridge is the main crossing point of the River Wharfe in the town, with high traffic levels in peak periods, but is considered too narrow to support active travel infrastructure commensurate to usage levels.
Priority to increase permeability and safe access to the town centre	Tadcaster suffers from high proportions of HGVs associated with the breweries and other business, with the highway often designed to accommodate the movements of these vehicles. Providing safer alternatives may be more feasible than looking to accommodate all users within the highway.

6.4 SUMMARY

6.4.1 These emerging priorities will be discussed with SDC and NYCC alongside the evidence review and draft network plans to identify initial locations/corridors for further development as part of Phase 2 of the SDLCWIP.

7

NETWORK PRIORITIES & RECOMMENDED NEXT STEPS

7 NETWORK PRIORITIES & RECOMMENDED NEXT STEPS

7.1 INTRODUCTION

7.1.1 The preceding sections of the report have detailed the development and refinement of the draft cycling and walking networks. This section of the report presents the final recommended Cycle and Walking Network Plans and initial priorities to take forward for further development in Phase 2 of the Selby District LCWIP.

7.1.2 Consideration is also given to the types of intervention appropriate for each for each network in the context of the study area.

7.2 FINAL CYCLING NETWORKS

The final Cycling Network Maps are displayed in Figure 7-1 to Figure 7-3, with high resolution versions presented in Appendix A.

Figure 7-1 - Final Cycling Network Map: Selby

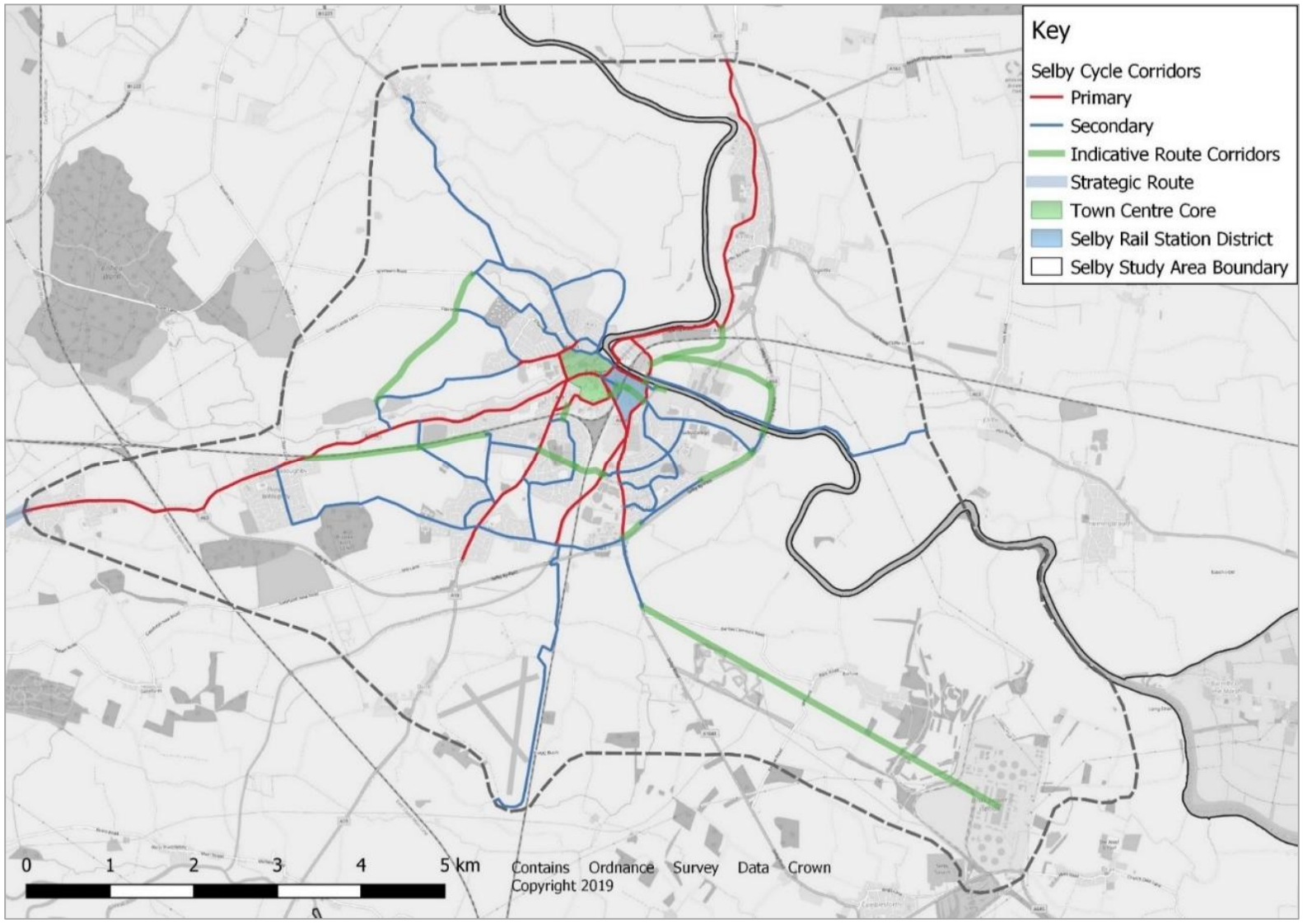


Figure 7-2 - Final Cycling Network Map: Sherburn

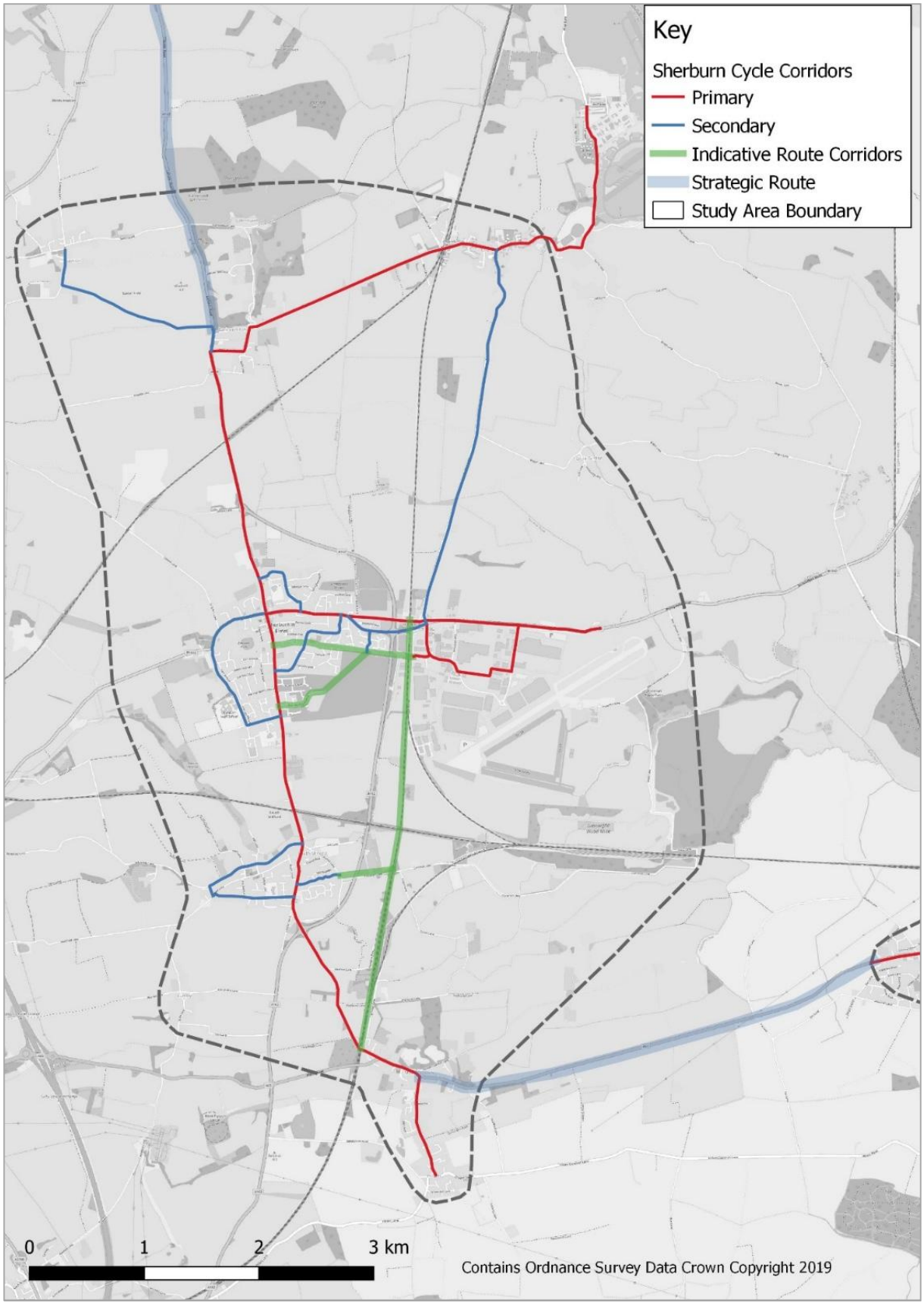


Figure 7-3 - Final Cycling Network Map: Tadcaster

7.3 FINAL WALKING NETWORKS

The final Walking Network Maps are displayed in Figure 7-4 to Figure 7-6, with high resolution versions presented in Appendix A.

Figure 7-4 - Final Walking Network Map: Selby

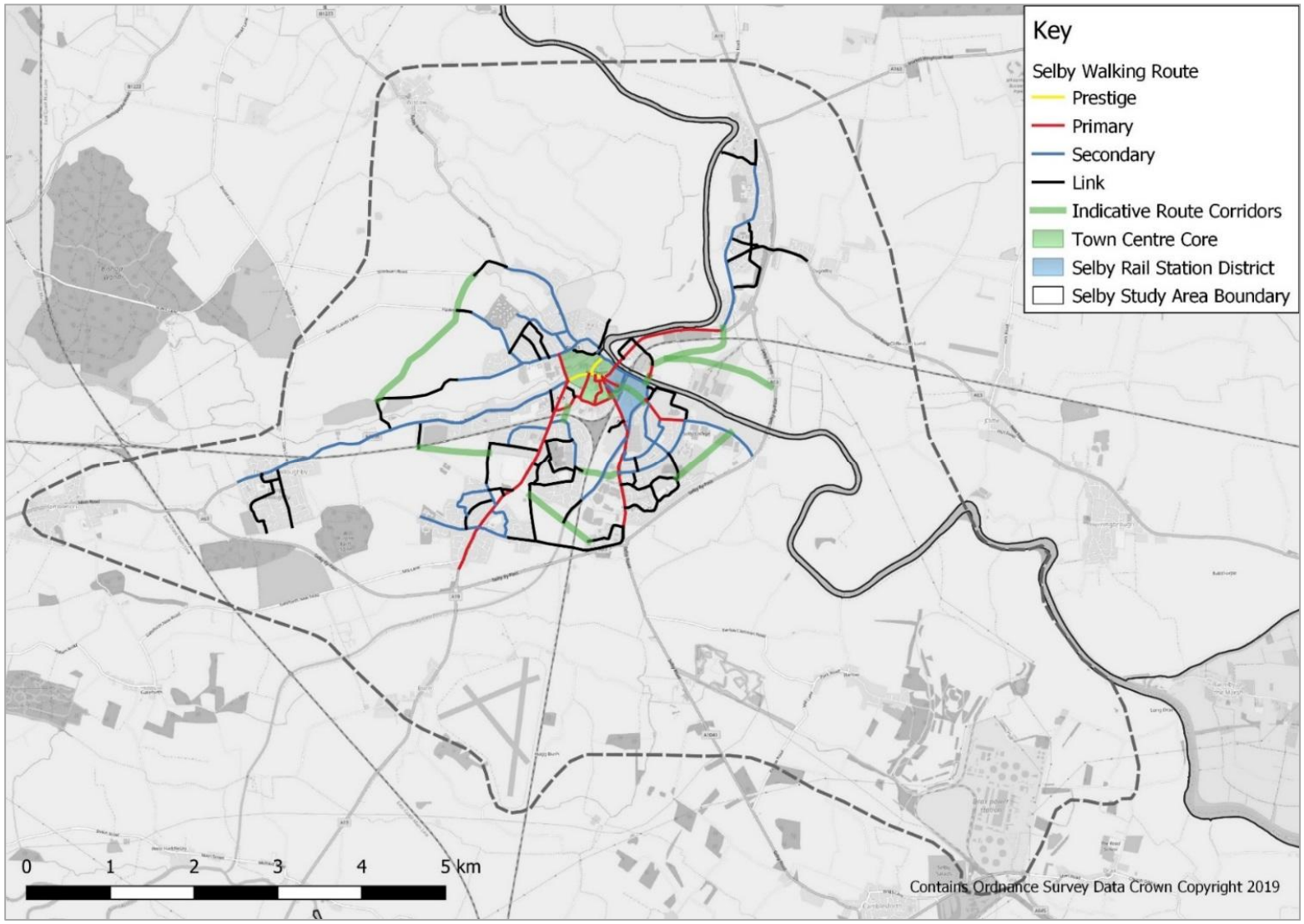


Figure 7-5 - Final Walking Network Map: Sherburn

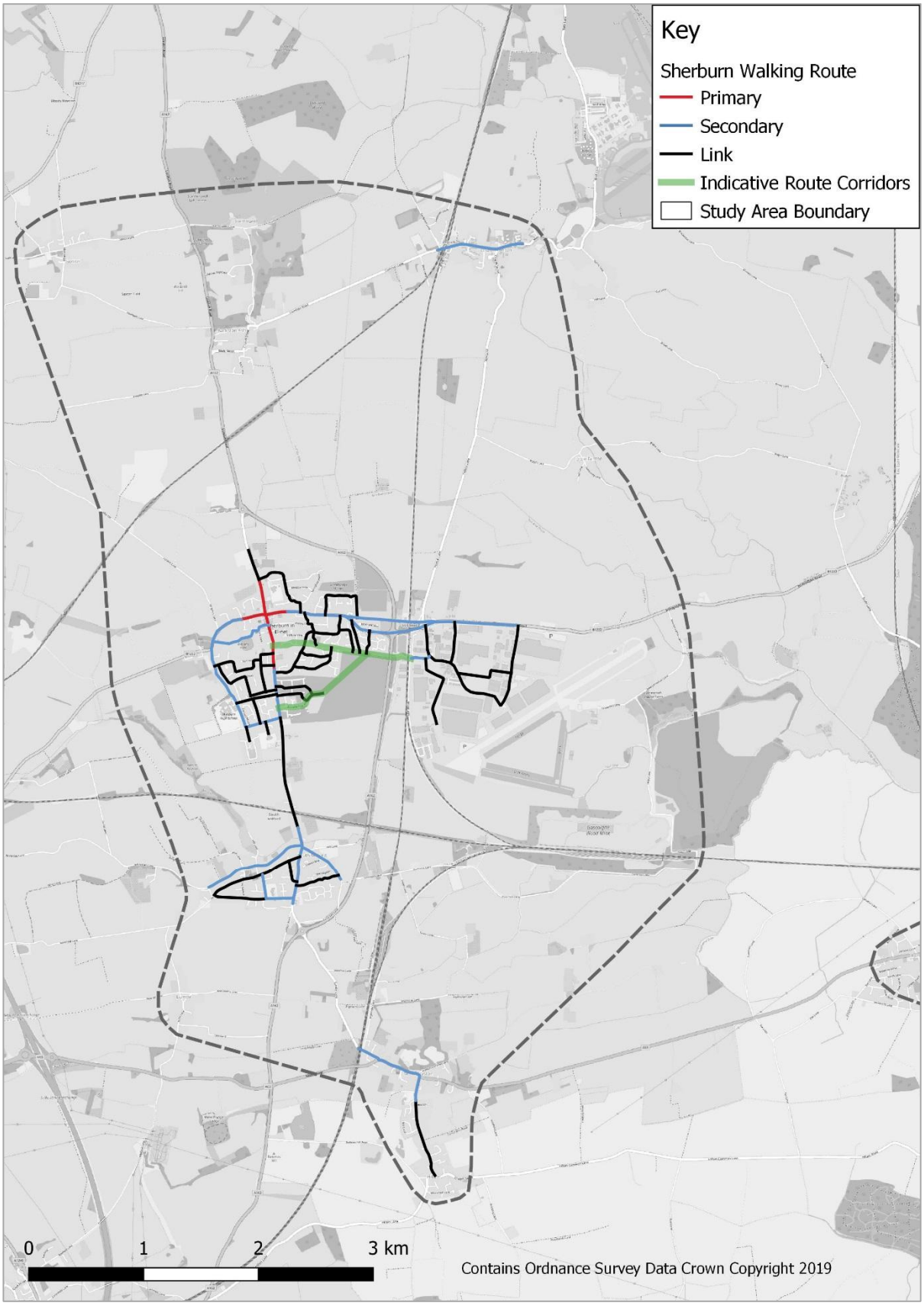
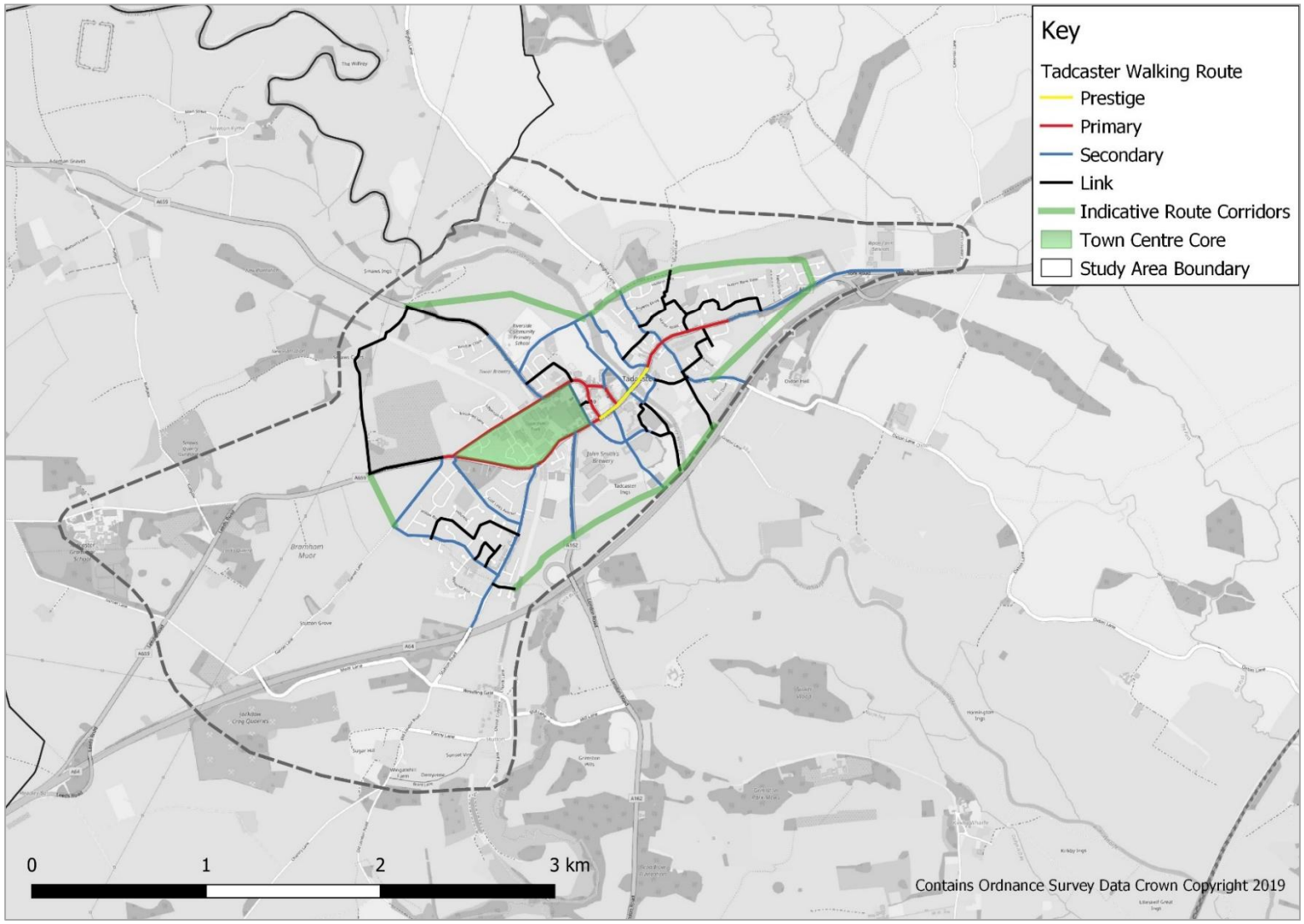


Figure 7-6 - Final Walking Network Map: Tadcaster



7.4 NETWORK HIERARCHIES

7.4.1 Draft network hierarchies consistent with those utilised in other North Yorkshire LCWIPs were presented to stakeholders for consideration as part of the external workshop. It was agreed with stakeholders that these remain consistent with no need to amend to reflect local priorities. The final definitions are therefore shown in Table 7-1 and

7.4.2 Table 7-2 below.

Table 7-1 - Final Network Hierarchy Definitions - Cycling

Network Element	Characteristics
Primary	¡ Different cycle users, based on confidence level, experience, age, demographics, trip purpose; ¡ Different types of bikes, including standard, recumbent, trailers, cargo bikes, disabled user cycles; ¡ High flow of cycle users; ¡ Creates arterial routes; ¡ Links large residential areas to main clusters such as town centre locations; ¡ Through, internal, and inbound-outbound traffic; ¡ Cater for existing non-cycle users; ¡ Cater for people aged '8-80' to be able to cycle safely; ¡ Direct, following the shortest possible route; ¡ Low gradients where possible.
Secondary	¡ Lower volumes of cycle users; ¡ Further increases density of network; ¡ Ensure local access to origins and destinations from the primary / secondary network; ¡ Provide quieter routes for less confident cycle users (while primary network is being developed).
Town Centre Cores	¡ High levels of permeability and priority for cycle users and pedestrians; ¡ High levels of cycle parking availability.

Table 7-2 - Final Network Hierarchy Definitions - Walking

Name	Description
Prestige Walking Zones	Very busy areas of towns and cities, with high public space and street scene contribution.
Primary Walking Routes	Busy urban shopping and business areas, and main pedestrian routes
Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres, etc.
Link Footways	Linking local access footways through urban areas and busy rural footways.

7.5 DIFFERENT TYPES OF INTERVENTION

7.5.1 To achieve the cycling and walking networks based on the respective hierarchies detailed in the previous section, it is necessary to reference how different types of intervention will be required that take into account opportunities and constraints in different parts of the network.

7.5.2 For example, the primary networks cover a range of different types of highway and pedestrian environments from arterial A-roads to town streets. Reflecting this, it is clear that the type of intervention required to achieve the characteristics of what the primary network should be will vary.

7.5.3 The best practice review in Section 3 brought together a range of techniques from the UK and beyond for developing cycling and walking networks. This good practice has informed the types of intervention recommended.

7.5.4 Table 7-3 and Table 7-4 present various types of intervention that are based around the level of segregation of cycle and pedestrian users respectively from other modes, including both vehicle and non-vehicle traffic. The details of what could be included under each type of intervention is also presented for each.

Table 7-3 - Types of Intervention - Cycling

Ref	Type of Intervention	Details
A	Full segregation	Cycle track with continuous physical segregation from carriageway and footway
B	Hybrid segregation	Cycle track vertically segregated from the carriageway and footway
C	Dedicated lanes and light segregation	Mandatory or advisory cycle lanes; Intermittent physical segregation Reduced general traffic speeds; Centreline removal; Parking removal; Buffer lane at parking locations
D	Sharing with other modes	Reduced general traffic speeds Filtered permeability to restrict general traffic movements Cycle symbols Contraflow cycling permissions

Table 7-4 - Types of Intervention - Walking

Ref	Type of Intervention	Details
A	Full Pedestrianisation	Exclusion or temporal limit on other vehicle access. High quality pedestrian environment with significant place function.
B	Pedestrian enhanced streets / shared space / home zones	Reduction in formal traffic controls; Reduced general traffic speeds, Restricted interaction with other modes; Typically, less differentiation between footway and carriageway.
C	Footway / footpath enhancements	Improved surfacing; Increased footway widths; Adequate crossing facilities proportionate to function of link; De-cluttering of route; Minimal gradients for duration of link; Direct routes; Dropped kerbs and tactile paving.
D	Shared use pedestrian / cycle routes	Improved at-level surface conditioning; Improved signage; Segregated or unsegregated; Potential widening of route.

7.5.5 Table 7-5 applies the type of interventions presented in Table 7-3 to the primary, secondary and town centre core parts of the network. At the same time, the different types of environment are referenced with the type of intervention relating to whether the environment has more of a place or movement function.

Table 7-5 - Cycle Network Interventions

	Place							Movement
	Town square	Town street	High street	Local street	Rural road	Off-highway path	Connector	Arterial road
Primary	D	C, D	B, C, D	C, D	-	-	B, C, D	A, B
Secondary	D	C, D	B, C, D	C, D	C, D	C, D	B, C, D	
Town Centre Cores	D	D	D	-	-	-	-	-

7.5.6 Table 7-6 below conducts the same exercise, but this time applying the walking interventions listed in Table 7-4 to the prestige, primary, secondary walking routes and local footways within the network. Again, the different types of intervention are referenced relative to whether the environment has more of a place or movement function, as well as level of footfall.

Table 7-6 - Walking Network Interventions

	Place							Movement
	Town square	Town street	High street	Local street	Rural road	Off-highway path	Connector	Arterial road
Prestige Walking Zones	A, B, C	A, B, C	A, B, C	-	-	-	-	
Primary Walking Routes	B	B, C	B, C, D	-	-	C, D		
Secondary Walking Routes	-	-	-	C, D	C, D	C, D	C, D	C, D
Link Footways	-	-	-	C, D	C	C, D	C, D	

7.5.7 The output of the tables above reflects the desirable level of intervention for the respective parts of network based on their assignment in the respective cycling and walking network hierarchies.

7.5.8 The network hierarchies and the types of intervention presented above will be used where possible to inform the development of ongoing or future schemes by NYCC or SDC.

7.6 DRAFT PRIORITIES

7.6.1 The following parts of the network were proposed as draft priorities for taking forward to feasibility assessment to feed into any bidding opportunities. The draft priorities were presented to SDC and NYCC for comment and discussion. The priorities are presented as 'active travel corridors', with schemes developed which improved conditions for both cycle users and pedestrians.

7.6.2 The following sub-sections detail each of the draft priority corridors, along with a rationale for each priority, linking to the evidence base presented in this report.

DRAFT PRIORITIES: SELBY

7.6.3 The recommended priorities for Selby consist of 5 distinct corridors:

- Brayton to Selby Corridor;
- Brayton to Staynor Hall Orbital;
- TPT Connections;
- Selby SE Routes; and
- Selby North Area of Search.

7.6.4 These routes are illustrated in Figure 7-7, and discussed in more detail in Table 7-7 to Table 7-11.

Figure 7-7 - Recommended Priorities: Selby

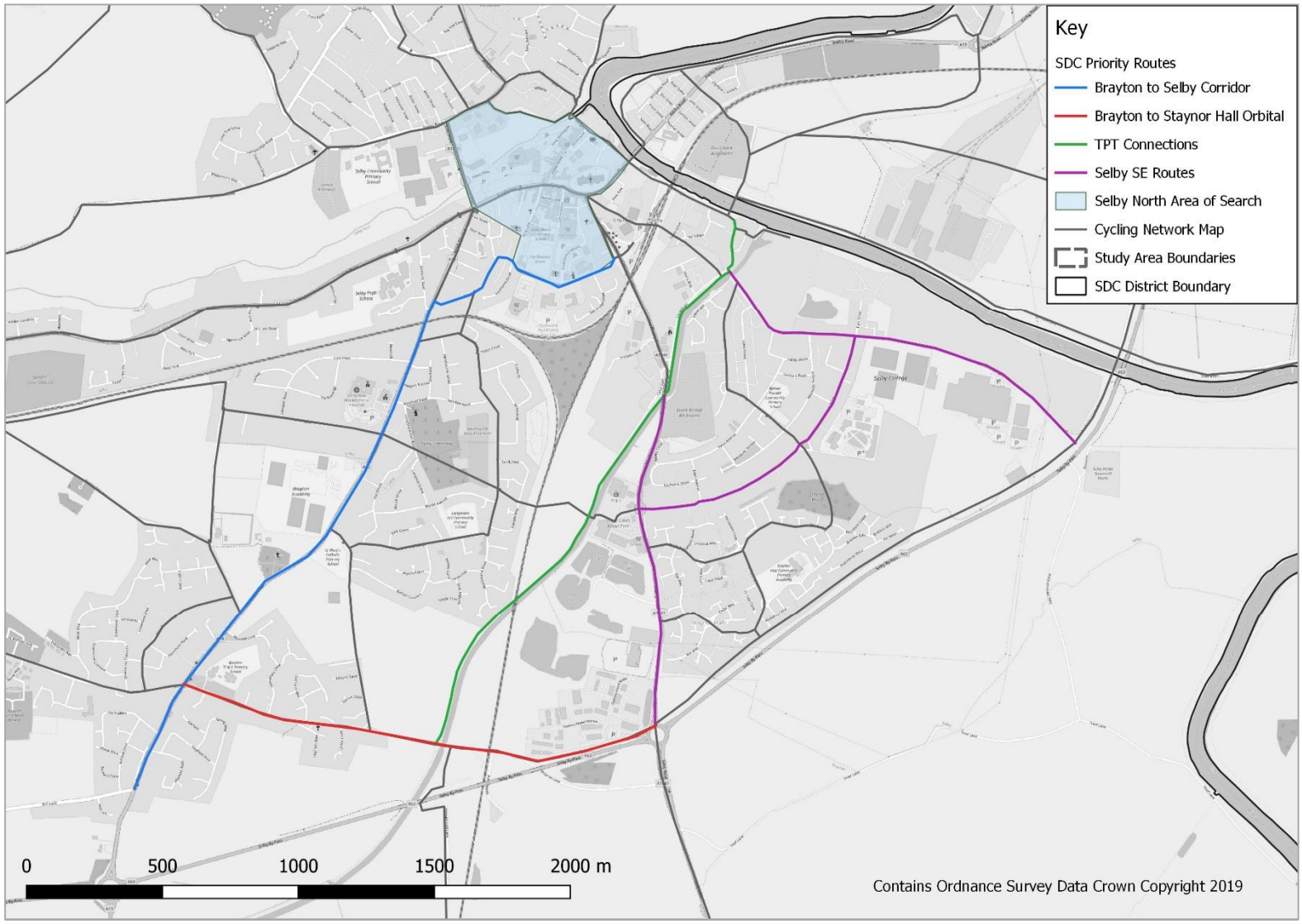


Table 7-7 - Selby Recommended Priorities: Brayton to Selby Corridor

Corridor Description	Rationale
A direct radial route connecting Brayton to both Selby town centre and the rail station. This corridor includes the following key features: ¡ The centre of the village of Brayton, providing a central point of access for the surrounding origin points and links to local facilities; ¡ Local connections to schools such as Brayton Academy and St Mary's Catholic Primary School; ¡ Connections to SDC offices and the Selby War Memorial Hospital; ¡ The critical pinch point at the level crossing and adjacent junction of the A19 and Union Lane; ¡ Potential growth sites on Portholme Road; ¡ Existing key employers, facilities and shopping destinations on Portholme Road; and ¡ Maximise permeability into the town centre; and ¡ Align with the Rail Station District aspirations.	¡ Stakeholder input; ¡ Connectivity of many key destinations, including retail, employment and educational ODs; ¡ PCT outputs identified elements of this corridor as potentially being some of the highest trafficked cycle routes in Selby; ¡ Overlapping desire lines and walking isochrones from Core Walking Zones suggest this route sees some of the highest current usage; ¡ This route encompasses both Prestige and Primary walking / cycling routes; and ¡ The central location of the corridor means many trips will either end within or make use of any associated interventions.

Table 7-8 - Selby Recommended Priorities: Brayton to Staynor Hall Orbital

Corridor Description	Rationale
A short orbital link between Brayton and the A63 Selby Bypass. This corridor includes the following key features: ¡ Serves a desire line which sees current usage despite the lack of infrastructure; ¡ Provides onward connectivity to various employment sites, retail centre, and educational facilities to the south east of Selby; ¡ A key 'missing link' between Brayton and Selby College; ¡ Onward connectivity via the Trans Pennine Trail; and ¡ Could be the first phase in creating the southern section of an orbital route around Selby.	¡ Significant stakeholder support; ¡ Connectivity of many key destinations, including retail, employment and educational ODs; and ¡ Likely a high level of suppressed demand given the current lack of infrastructure and associated potential safety concerns.

Table 7-9 - Selby Recommended Priorities: TPT Connections

Corridor Description	Rationale
An existing parallel off-road route to Bawtry Road. This corridor includes the following key features: ¡ Enhancement to the existing route to increase permeability from a number of adjacent ODs; ¡ The potential for increased permeability from a number of new growth sites or the regeneration of existing sites; and ¡ Connectivity to other SDLCWIP Phase 2 Priorities, increasing the potential for use as part of the active travel network.	¡ Stakeholder input; ¡ The route overcomes some of the severance of the existing Hull / Doncaster railway line and Selby Canal; ¡ The route provides a quiet off-road alternative to the heavily trafficked Bawtry Road; ¡ The varied trip purposes the route could serve unlocks a variety of funding sources; ¡ Any adjacent development could contribute towards any associated improvements; ¡ Provides onward connectivity to many key destinations, including retail, employment and educational ODs; ¡ PCT outputs identified elements of this corridor as potentially being some of the highest trafficked cycle routes in Selby; and ¡ The central location of the corridor means many trips will either end within or make use of any associated interventions.

Table 7-10 - Selby Recommended Priorities: Selby SE Routes

Corridor Description	Rationale
A network of core routes through the relatively deprived areas in the south east of Selby. This corridor includes the following key features: ¡ Direct connections between key retail facilities, employers, and educational establishments in the area; ¡ Alignment with the aspirations for the Rail Station District; and ¡ Connectivity to other SDLCWIP Phase 2 Priorities, increasing the potential for use as part of the active travel network.	¡ Stakeholder input; ¡ Contributes towards the regeneration of relatively deprived areas, increases social cohesion, and creates opportunities to access employment and education; ¡ Provides onward connectivity to many key destinations, including retail, employment and educational ODs; and ¡ Any adjacent development could contribute towards any associated improvements.

Table 7-11 - Selby Recommended Priorities: Selby North Area of Search

Corridor Description	Rationale
A broad area of search across Selby town centre, seeking to promote a distinct desire line connection between the relatively deprived areas in the north to Selby rail station via the town centre. This corridor includes the following key features: ¡ A broad remit to connect Selby North to the Rail Station District via the town centre; ¡ Alignment with the aspirations for the Rail Station District; and ¡ Connectivity to other SDLCWIP Phase 2 Priorities, increasing the potential for use as part of the active travel network.	¡ Stakeholder input; ¡ Contributes towards the regeneration of relatively deprived areas, increases social cohesion, and creates opportunities to access employment and education; ¡ Provides direct connectivity to many key destinations in the town centre; ¡ Any adjacent development could contribute towards any associated improvements; ¡ Could contribute towards the regeneration of the town centre, unlocking various additional funding streams; and ¡ PCT outputs identified elements of this corridor as potentially being some of the highest trafficked cycle routes in Selby.

DRAFT PRIORITIES: SHERBURN

7.6.5 The draft priorities for Sherburn consist of a single corridor with an objective to connect the more heavily used rail station at South Milford with the Sherburn 2 industrial estate. While there are a number of potential routes that could achieve this objective, by ensuring the route also connects to Sherburn itself any new infrastructure will serve a significantly higher number of users and trip purposes, as well as unlocking various additional funding streams.

7.6.6 With this in mind, Figure 7-8 illustrates both the broad corridor between the two distinct locations that will form the basis for the audit process, and a number of identified potential routes that could achieve the stated objective. Further commentary is provided in Table 7-12.

Figure 7-8 - Recommended Priorities: Sherburn

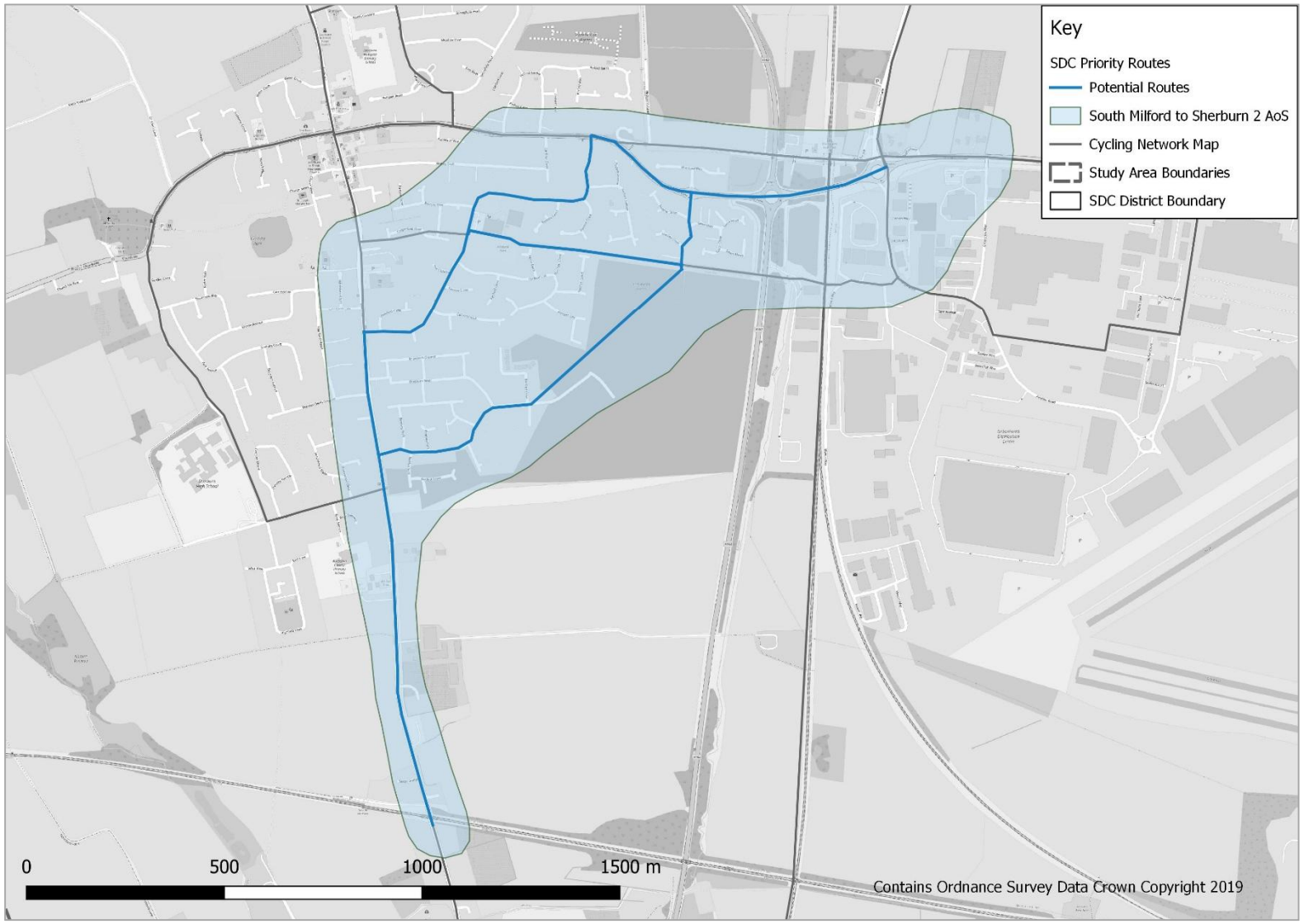


Table 7-12 - Sherburn Recommended Priorities: South Milford to Sherburn 2 AoS

Corridor Description	Rationale
A broad area of search (AoS) between South Milford rail station and Sherburn 2, seeking to provide a high-speed desire line connection between the two that would promote rail / cycle integration and travel by sustainable means. This corridor includes the following key features: ¡ A broad remit to connect South Milford rail station to Sherburn 2; ¡ Wider connectivity to Sherburn, providing a route that also contributes towards local trips by active modes; and ¡ Capitalising on existing infrastructure to provide quick wins and a focus on proportionality considering the potential for funding.	¡ Significant stakeholder support; ¡ Connectivity of many key destinations, including retail, employment and educational ODs; ¡ Likely a high level of suppressed demand given the current lack of infrastructure and associated potential safety concerns. ¡ Contributes towards the regeneration of relatively deprived areas, increases social cohesion, and creates opportunities to access employment and education; ¡ Any adjacent development could contribute towards any associated improvements; and ¡ PCT outputs identified elements of this corridor as potentially being some of the highest trafficked cycle routes in Sherburn.

DRAFT PRIORITIES: TADCASTER

7.6.7 The draft priorities for Tadcaster also consist of a single corridor. The existing network in Tadcaster is heavily constrained by the requirements of the breweries, the main employers in the town, which generate high numbers of HGV movements. Providing an off-road network can be more difficult given the need to ensure high-quality surfacing and a perception of security that is conducive to active travel in all conditions. This is further complicated by uncertainty over future development in the area. There are therefore limited opportunities for schemes that are deliverable in the near future (i.e. 1-3 years).

7.6.8 Nevertheless, the route indicated in Figure 7-9 is considered to offer a significant immediate opportunity to enhance active travel in the town centre and contribute to the wider placemaking agenda for Tadcaster, while being potentially deliverable in the short term.

Figure 7-9 - Recommended Priorities: Tadcaster

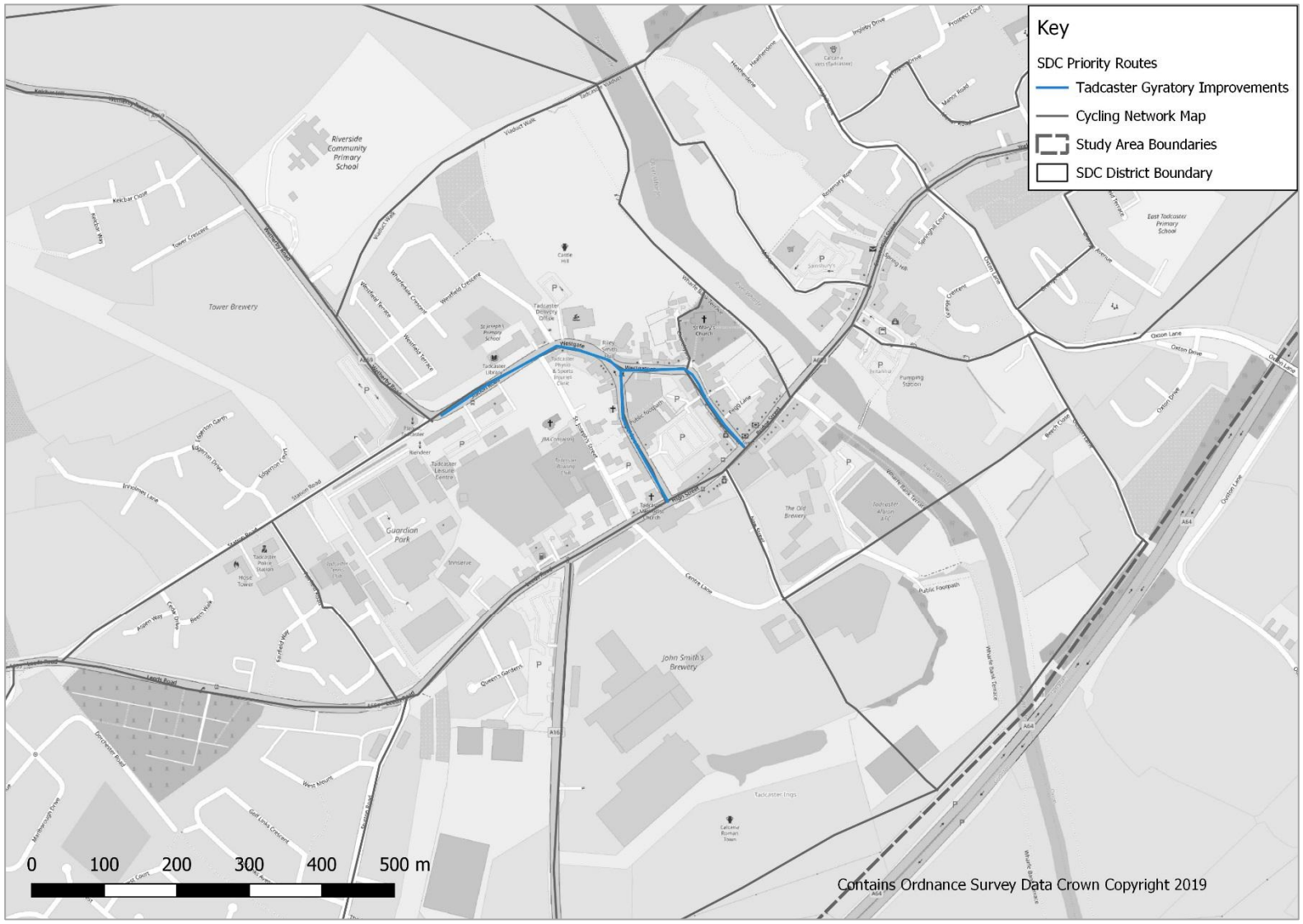


Table 7-13 - Tadcaster Recommended Priorities: Tadcaster Gyratory Improvements

Corridor Description	Rationale
Improvements to the highway and public realm around the routes making up the small gyratory around Tadcaster town centre. This corridor includes the following key features: ¡ A rationalisation of the highway to provide new cycle infrastructure and improved pedestrian facilities where superfluous carriageway exists; and ¡ Use of materials sympathetic to the historic nature of the town, contributing to a sense of place over movement.	¡ Stakeholder input; ¡ Connectivity of number of key destinations, including retail, employment and educational ODs; ¡ Contributes towards placemaking and the regeneration of Tadcaster town centre; ¡ Deliverable in the early phases of the LCWIP (1-3 years); and ¡ Any adjacent development could contribute towards any associated improvements.

7.7 IDENTIFYING PRIORITY CORRIDORS FOR DEVELOPMENT

7.7.1 Whilst the long-term shared aspiration of NYCC and SDC is to deliver the proposed cycling and walking networks that have been identified through this project in their entirety, the authorities recognise that in the short-term this will not be financially viable.

7.7.2 Following the development of the network maps and identification of draft priority 'active travel' corridors, SDC and NYCC have collaboratively selected a number of priority routes to be taken forward for feasibility assessment, with the intention of these being delivered when funding is made available.

7.7.3 The choice of the routes has been influenced primarily by four key factors. The first key factor is a consideration of whether the routes address connections where a greater propensity for cycling and walking have been identified. Related to this is a consideration of whether the routes would improve connectivity through the study area and support strategic employment and development sites. The data and evidence presented in Section 2 of this report underpin the identification of routes for prioritisation.

7.7.4 The second key factor has considered the alignment of the routes with other schemes and related work streams (whether ongoing, completed, or aspirational); ensuring that any proposals support the wider aims and agendas of the district and county will strength the case for any intervention and help promote the network through multiple avenues.

7.7.5 The third factor has considered engineering constraints and the likelihood of any intervention being able to be delivered in its own right, independent of any significant wider works, such as a major redirection of traffic. While this might mean that the proposed schemes may avoid some of the most constrained existing areas of the network, it is understood that these will be considered through wider transport related studies, and the inclusion of these routes in the cycling and walking network maps should ensure due cognisance is paid to these routes when determining any associated intervention.

7.7.6 The fourth key factor considers the likelihood of the corridor to receive funding (including both government funding and developer funding). Most recent government funding for active travel infrastructure has been for schemes that target modal shift towards cycling and walking in busy urban areas by improving access to employment and education opportunities.

7.7.7 The routes selected for further development in Phase 2 of the Selby District LCWIP project are considered to strongly align to these four factors.

7.8 FINAL PRIORITIES AND NEXT STEPS

SELBY

7.8.1 In Selby, the routes selected for progression into Phase 2 create the skeleton structure of an initial cycling network across Selby's urban area. The routes include three key radial corridors into the town centre:

- A19 Doncaster Road;
- Bawtry Road (between A63 Selby Bypass and Canal Road); and
- East Common Lane / Denison Road.

7.8.2 These routes are supported by three key links:

- Portholme Road;
- Abbot's Road; and
- Canal Road.

7.8.3 This network converges just south of the town centre at the Rail Station District, aligning with and complementing wider proposals, schemes, and development aspirations for the regeneration of this area.

7.8.4 The routes selected include the extent of the Trans Pennine Trail between Brayton Road and Selby Canal Basin. This primarily leisure route is considered to offer unrealised potential for an off-road active travel route to cater for more utility and commuter-based trips with a package of improved permeability and complementary enhancements.

7.8.5 The identified priorities also include an 'area of search' within the town centre. While it is anticipated that a more comprehensive movement study will seek to improve access to the town centre via active travel, the Selby District LCWIP Phase 2 will consider improvements to a single route between the town centre and the residential areas to the north of the town, improving accessibility between the deprived areas to the north and the opportunities offered by the town centre and access to Selby rail station. A comparison of various route options will be made within the area of search, likely including a desire line route across Upper / Lower Field, Scott Road, and New Millgate.

7.8.6 These routes are illustrated in Figure 7-10.

SHERBURN-IN-ELMET

7.8.7 The baseline evidence presented in this document identified a clear need to address the disconnect between Sherburn, Sherburn Park industrial estate, and South Milford, particularly with regards to the rail connections.

7.8.8 With this objective in mind, a broad corridor was identified that connects South Milford Rail Station with Sherburn Park, via Sherburn-in-Elmet village.

7.8.9 A number of potential routes were identified that could achieve this objective, while offering varying degrees of connectivity to Sherburn village.

7.8.10 These routes are highlighted in Figure 7-11.

TADCASTER

7.8.11 A number of opportunities have been identified which could be taken forward for further development, specifically with regards to existing east-west connectivity and pinch points around the town centre vicinity.

7.8.12 However, at this stage, based on the prioritisation criteria outlined in Section 7.7, no routes are to be progressed to Phase 2 of the LCWIP. Inclusion of Tadcaster schemes in the next tranche of priorities (i.e. medium-term schemes) could support additional development sites which may come forward in the near future.

NEXT STEPS

7.8.13 Where applicable, a range of route options will be considered as part of the feasibility assessment. As a high-level consideration of engineering constraints has been undertaken when determining these routes, there is not anticipated to be any significant deviation from those routes identified.

7.8.14 The DfT Route Selection Tool will be utilised to assist in determining the most suitable cycle route within these corridors and inform the identification of any potential intervention. Following identification of the preferred cycling route corridor, a gap analysis of the pedestrian walking infrastructure within this corridor will be undertaken using the DfT Walking Route Audit Tool to assess the level and quality of walking infrastructure provision. This approach will maximise the opportunities for complementary improvements in order to provide a cohesive active travel corridor. Identifying synergies between cycling and walking improvements will maximise potential scheme benefits.

7.8.15 The feasibility assessment will also use the network principles and interventions types presented in this report along with the stakeholder feedback collated during the network development phase.

Figure 7-10 - LCWIP Priority Corridors: Selby

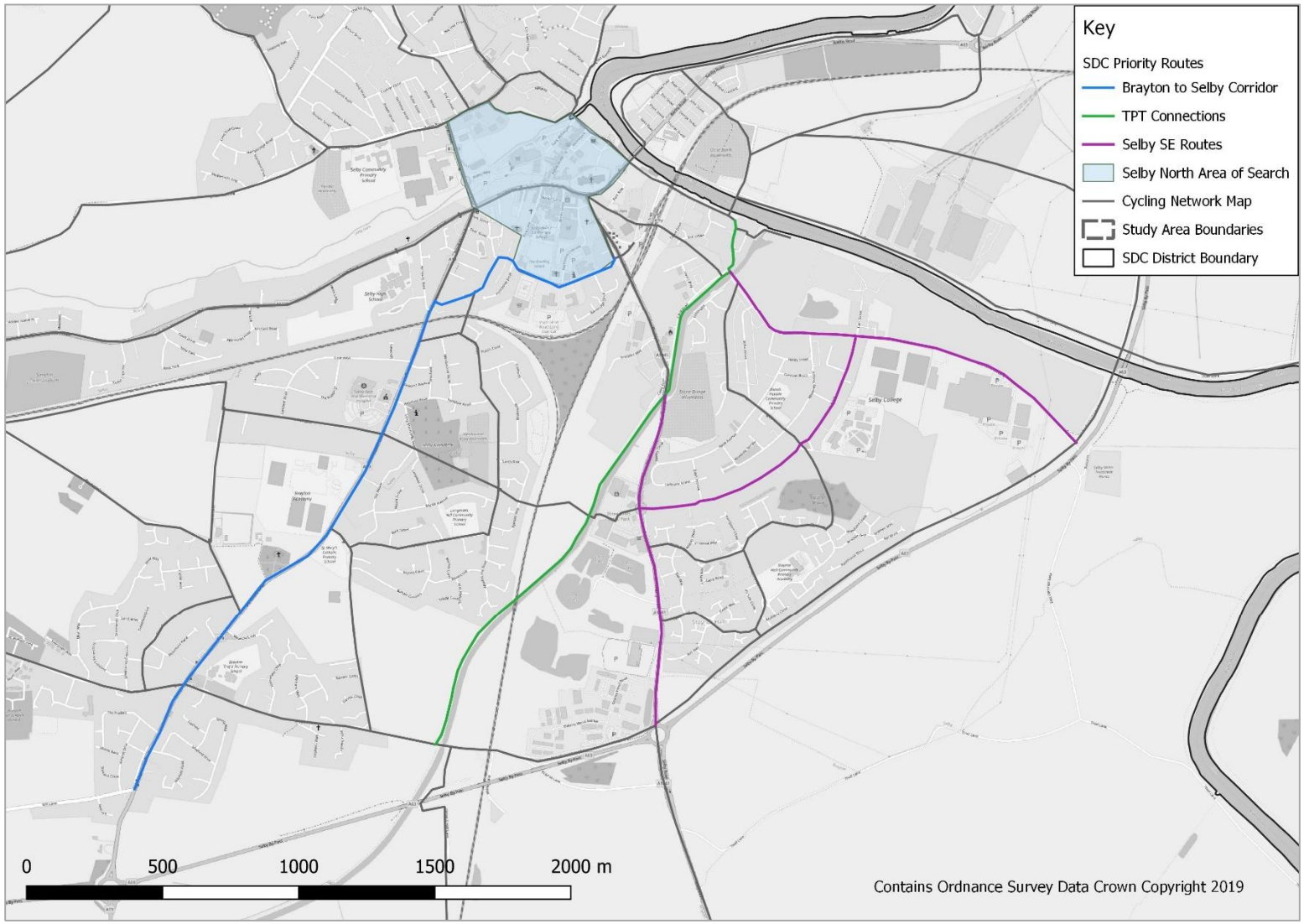
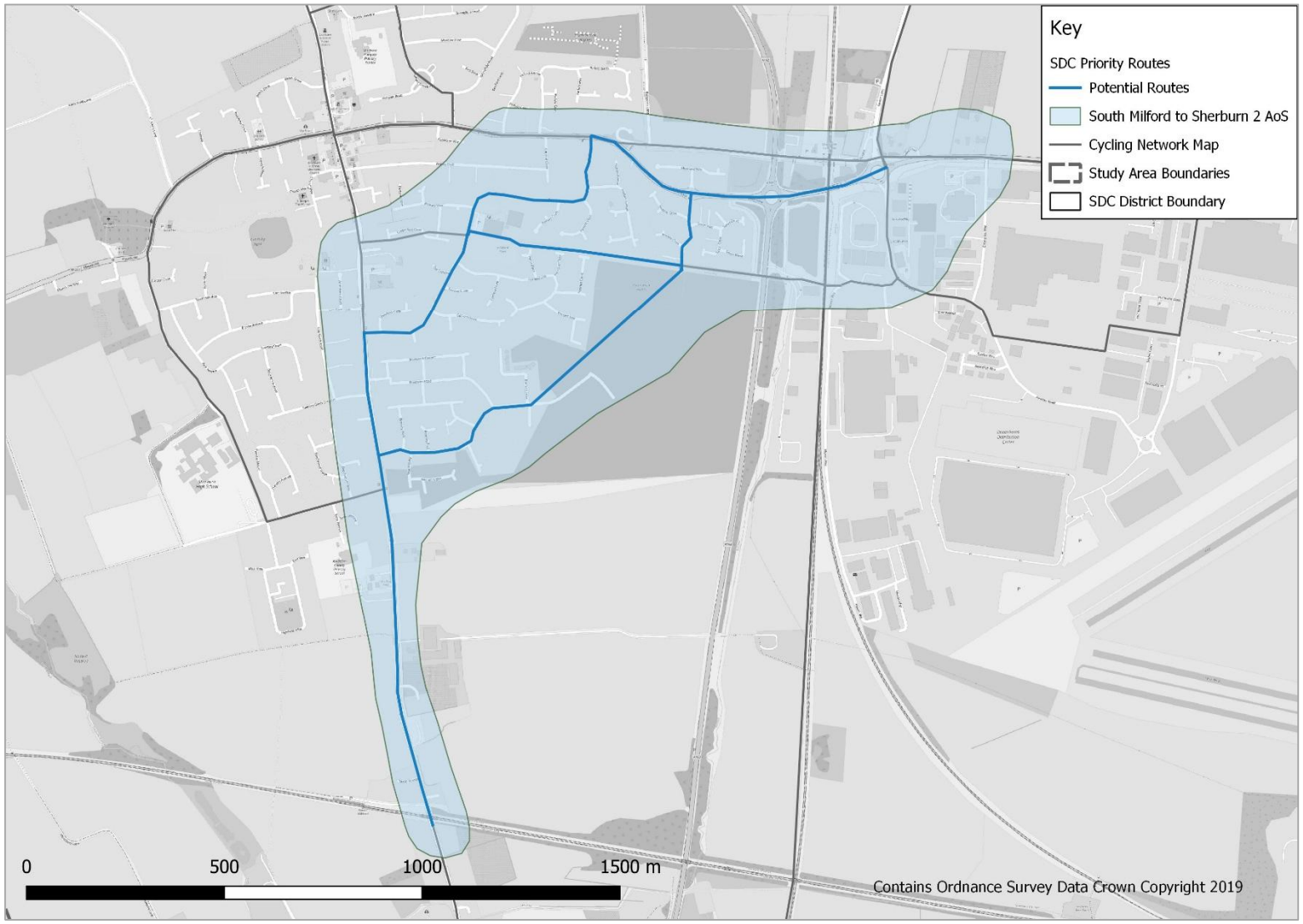


Figure 7-11 - LCWIP Priority Corridors: Sherburn-in-Elmet



Appendix A

FINAL NETWORK PLANS

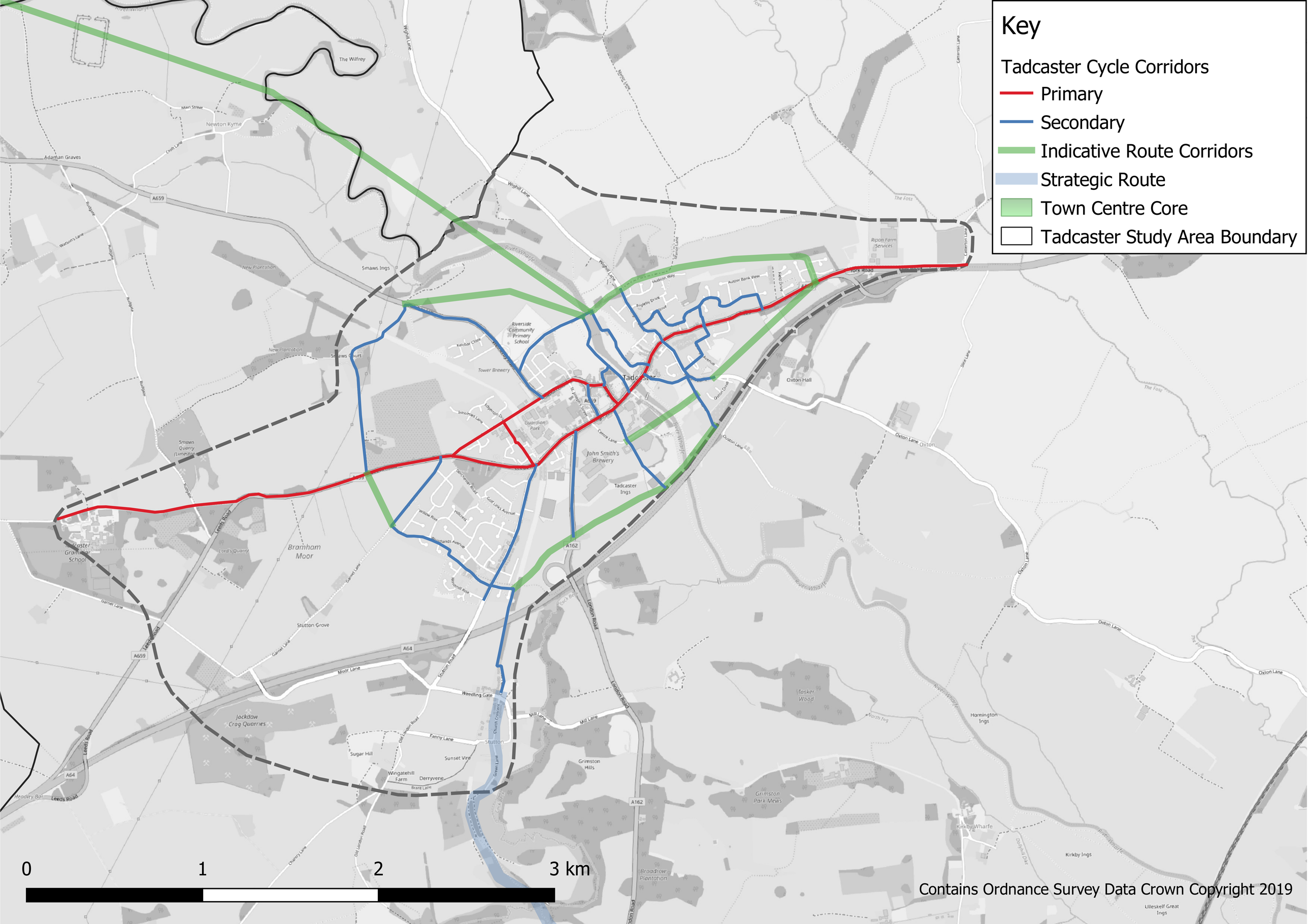

Key
Selby Cycle Corridors
Primary
Secondary
Indicative Route Corridors
Strategic Route
Town Centre Core
Selby Rail Station District
Selby Study Area Boundary
0
1
2
3
4
5 km
Contains Ordnance Survey Data Crown Copyright 2019

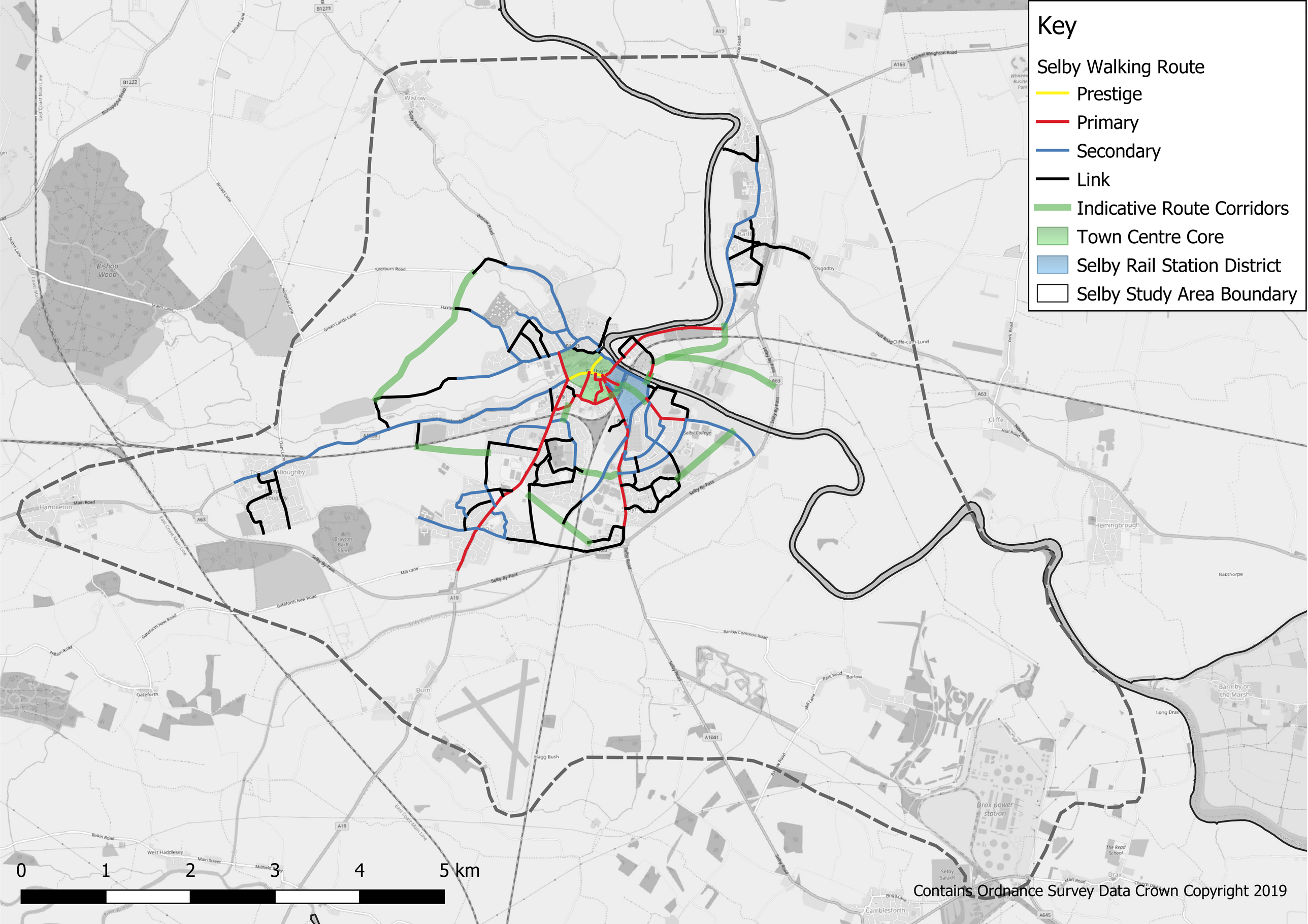
Key

Sherburn Draft Cycle Corridors

- Primary
- Secondary
- Indicative Route Corridors
- Strategic Route
- Study Area Boundary

0 1 2 3 km


Key
Tadcaster Cycle Corridors
Primary
Secondary
Indicative Route Corridors
Strategic Route
Town Centre Core
Tadcaster Study Area Boundary
0
1
2
3 km
Contains Ordnance Survey Data Crown Copyright 2019


Key
Selby Walking Route
Prestige
Primary
Secondary
Link
Indicative Route Corridors
Town Centre Core
Selby Rail Station District
Selby Study Area Boundary
0
1
2
3
4
5 km
Contains Ordnance Survey Data Crown Copyright 2019

Key

Sherburn Walking Route

- Primary
- Secondary
- Link
- Indicative Route Corridors
- Study Area Boundary

0 1 2 3 km

Key

Tadcaster Walking Route

- Prestige
- Primary
- Secondary
- Link
- Indicative Route Corridors
- Town Centre Core
- Study Area Boundary

0 1 2 3 km

Amber Court
William Armstrong Drive
Newcastle upon Tyne
NE4 7YQ

wsp.com