

Public Document Pack

JOHN WARD

Director of Corporate Services

Contact: Democratic Services

Email: democraticservices@chichester.gov.uk

East Pallant House

1 East Pallant

Chichester

West Sussex

PO19 1TY

Tel: 01243 785166

www.chichester.gov.uk



A meeting of the **Cabinet** will be held Virtually on **Tuesday 8 September 2020** at **9.30 am**

MEMBERS: Mrs E Lintill (Chairman), Mrs S Taylor (Vice-Chairman), Mr M Bell, Mr R Briscoe, Mr A Dignum, Mrs P Plant, Mr A Sutton and Mr P Wilding

SUPPLEMENT TO AGENDA

8 **Chichester City Local Cycling and Walking Infrastructure Plan** (Pages 1 - 140)

Appendix 1, Appendix 2 (Walking), Appendix 2 (Cycling) and Appendices 3 and 4.

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Chichester City Local Cycling & Walking Infrastructure Plan (LCWIP)



May 2020

Produced by Transport Initiatives



supported by PJA

Chichester City Local Cycling & Walking Infrastructure Plan (LCWIP)

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Checking / sign off	
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Job number: CSSE29	Version number: 5.1
Issued by: Mark Strong	Checked by: Ken Spence
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Transport Initiatives LLP

www.transport-initiatives.com info@transport-initiatives.com 0845 345 7623

Registered Office: Office 4, 145 Islingword Road, Brighton BN2 9SH

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Executive Summary

Aim and brief

In 2019 Chichester District Council (CDC) commissioned Transport Initiatives, with support from PJA, to develop a Local Cycling and Walking Infrastructure Plan (LCWIP) for the City of Chichester (area shown to the right).

A range of tasks were carried out for the study, which was developed in parallel with the county-wide LCWIP produced by West Sussex County Council (WSCC).

The potential for cycling was assessed using a tool developed by the Department for Transport (DfT). Options were developed for safe, convenient and attractive cycle routes, based on site visits plus advice from councillors, officers and stakeholders. These were then assessed in detail. The assessment of walking was focused on the city Core Walking Zone (CWZ), plus two main routes between the CWZ and outlying areas.

As part of the study, two workshops were held with key stakeholders including councillors and officers from both CDC and WSCC, other statutory bodies, private companies and voluntary and community groups.

Development of the LCWIP has taken into account other schemes being promoted by WSCC as well as proposed developments across the area. Meetings with officers of both WSCC and CDC were held to ensure projects being led by developers as part of the planning process were also covered in the study.

Just before completion of the LCWIP the world was hit by the COVID-19 pandemic. This has had an unprecedented effect on the lives of everyone in the UK. The impact on transport has led to increased cycling, which has been supported by Government policy and funding.

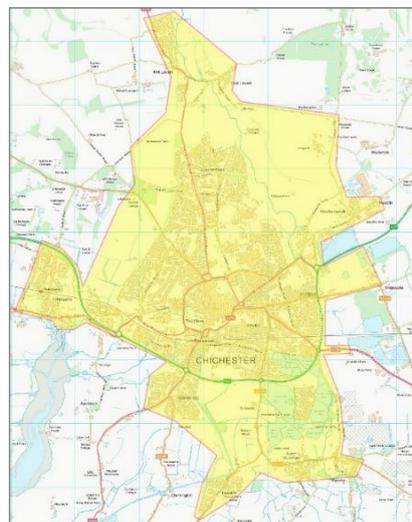
Research

A detailed analysis of the area was carried out using the Propensity to Cycle Tool (PCT) which incorporates data from the 2011 census. This showed relatively high rates of cycling in areas of Chichester (compared to elsewhere in West Sussex), with potential for increase. A desk-based audit of existing provision for cycling across the highway network was carried out, based on the Bikeability training levels needed to use the network safely. This confirmed that there was inconsistent provision for safe and convenient cycling within the study area.

While there is no equivalent for the PCT for walking, the 2011 census data was used to show areas with higher and lower rates of walking.

Analysis

Based on the PCT, a number of potential cycle routes were proposed and refined following an iterative process. A cycle network of around 57km of routes was identified including main routes and links. The routes were then analysed using the DfT's Route Selection Tool (RST) which assesses five key criteria: Connectivity, Safety, Directness (deviation from straight line distance), Gradient and Comfort. The RST also records the number of Critical Junctions.



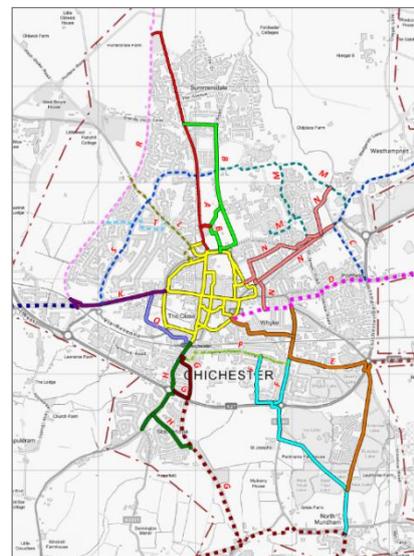
An assessment of walking in the CWZ was carried out, using the DfT's Walking Route Assessment Tool (WRAT). This showed where provision for walking is good or poor. The two highest priority routes between the CWZ and outer areas (to the north and west) were also assessed using the WRAT. The process could be repeated for other routes if required.

Proposals

Based on the RST assessments, proposals were developed to improve the cycle routes to be promoted by CDC (solid lines on the plan to the right). Proposals for the other routes are being led by other promoters, including WSCC, Highways England, developers or another body.

A set of "Do Minimum" measures were produced showing the minimum requirements to make routes fit for purpose, plus "Do More" measures that would upgrade them to a higher quality (e.g. protected cycle lanes or separate tracks).

Proposals were also drawn up to improve walking in the CWZ and on the two identified routes.



Costs and Funding

The outline cost for the LCWIP is estimated at £6.7 million (*"Do Minimum"*) or £16.7 million (*"Do More"*), including a 15% uplift for contingency/optimism bias. As in most area wide projects, a variety of sources will be needed to supplement CDC and WSCC funds, including government funding (such as the Emergency Active Travel Fund), external grants and contributions from developers and other third parties.

It is important to note that the LCWIP is intended as a 10 year programme for the delivery of infrastructure. The average cost of around £0.7m/year for the *Do Minimum* measures is equal to around £18/year for each person in the LCWIP area, a significant increase on current levels of expenditure. This matches the level generally regarded as the minimum needed to have a significant impact on cycling levels, including by the All Party Parliamentary Cycling Group report "Get Britain Cycling" in 2013.

The annual expenditure to deliver Do More measures would be £1.7m (over £40/person annually). This would lead to a higher level of mode shift to cycling, as well as benefitting walking. There would be a significant positive impact on the city's environment and economy.

Next steps

The next stage of the LCWIP is to prioritise the proposed interventions. This will be carried out by WSCC in conjunction with the county-wide, South Downs and other area LCWIPs. It will include a Multi-Criteria Assessment Framework to allow proposals in different areas and LCWIPs to be assessed on the same basis. Some interim measures may be delivered via COVID-19 recovery.

CDC will then consider how best to associate the LCWIP with the revised Local Plan as it emerges. This will include the possibility of inclusion of the LCWIP schemes in CDC's Infrastructure Business Plan (IBP). This prioritises the infrastructure needed to support growth via a five year rolling programme for delivery, together with possible funding broken down by source.

It is intended that the LCWIP will be reviewed in response to new funding and delivery opportunities and/or in five years' time, in order to ensure that delivery of active travel infrastructure is sustained.

1. Introduction

1.1 Aim of study

The LCWIP study was commissioned by Chichester District Council (CDC) in 2019.

The overall aim of the study is to deliver:

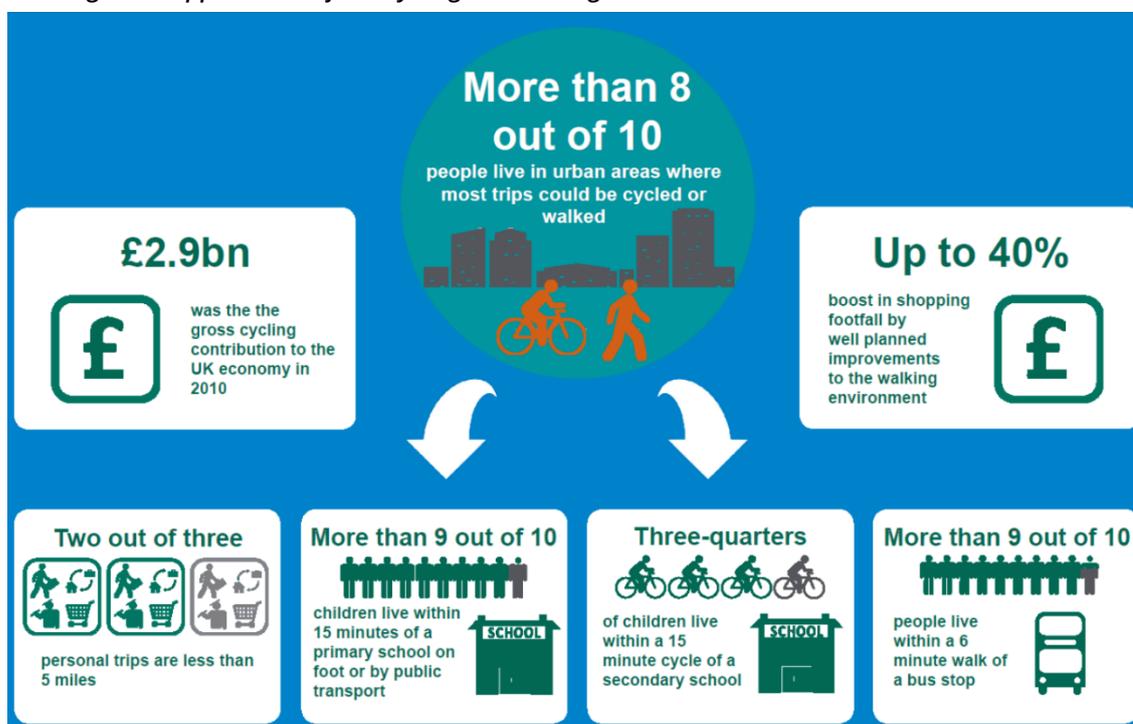
- A network plan for walking and cycling within Chichester City, identifying preferred routes and core zones for further improvement
- A programme of infrastructure improvements for future investment
- A report setting out the underlying analysis, with a narrative supporting the identified improvements and network
- Assistance with public engagement

1.2 Background to LCWIP

In 2017 the Government published its first Cycling and Walking Investment Strategy (CWIS). This was a requirement of the Infrastructure Act 2015 which placed a duty on the Secretary of State for Transport to develop “Cycling & Walking Investment Strategies” with objectives & financial resources.

The 2017 CWIS set out why cycling and walking are considered important by the government. It states that the aim is “to make cycling and walking the natural choices for shorter journeys, or as part of a longer journey”. In February 2020 the first report to parliament was made on progress in delivering the CWIS¹.

CWIS Figure 1: Opportunities from cycling and walking



¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863723/cycling-and-walking-investment-strategy-report-to-parliament.pdf

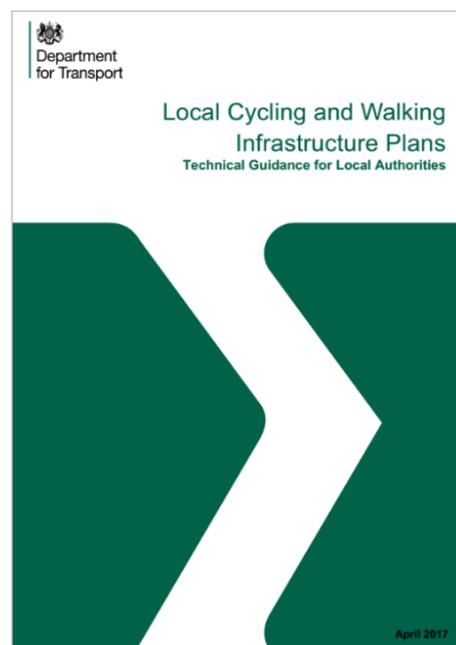
As part of the CWIS, the DfT set out an expectation that local authorities would develop a Local Cycling and Walking Infrastructure Plan (LCWIP) for their area. The LCWIP is intended to deliver a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach, ideally over a 10 year period, and form a vital part of the Government's objectives to increase the number of trips made on foot or by cycle.

Detailed technical guidance on developing an LCWIP was issued in April 2017². This states that the LCWIP's key aims should be:

- To develop a planned **cycle network** connecting key origins and destinations
- To provide high quality **walking environments**

The LCWIP should include the following outputs:

- A **network plan for cycling and walking** which identifies preferred routes and core zones for further developments
- A **prioritised programme** of infrastructure improvements for future investment
- A **report setting out the underlying analysis** with a clear explanation to support the network and improvements



The guidance sets out six stages for the LCWIP process, shown in Table 1 below. This LCWIP report covers Stages 2 to 4. It was initially intended to also include Stage 5. However, this will now be delivered by WSCC in conjunction with the county-wide and South Downs National Park Authority (SDNPA) LCWIPs (see Sections 1.3 and 7.3). This will allow proposals in different areas and LCWIPs to be assessed on the same basis.

Table 1: LCWIP stages and names

Stage	Name	Tasks
1	Determining scope	Establish geographic extent and governance
2	Gathering information	Review policies, collate information on existing network and trips, identify main destinations
3	Network planning for cycling	Identify potential trips and develop routes
4	Network planning for walking	Identify potential trips and develop area proposals
5	Prioritising improvements	Appraisal and prioritisation of proposals
6	Integration and application	Incorporate into local plans and strategies

² <https://www.gov.uk/government/publications/local-cycling-and-walking-infrastructure-plans-technical-guidance-and-tools>

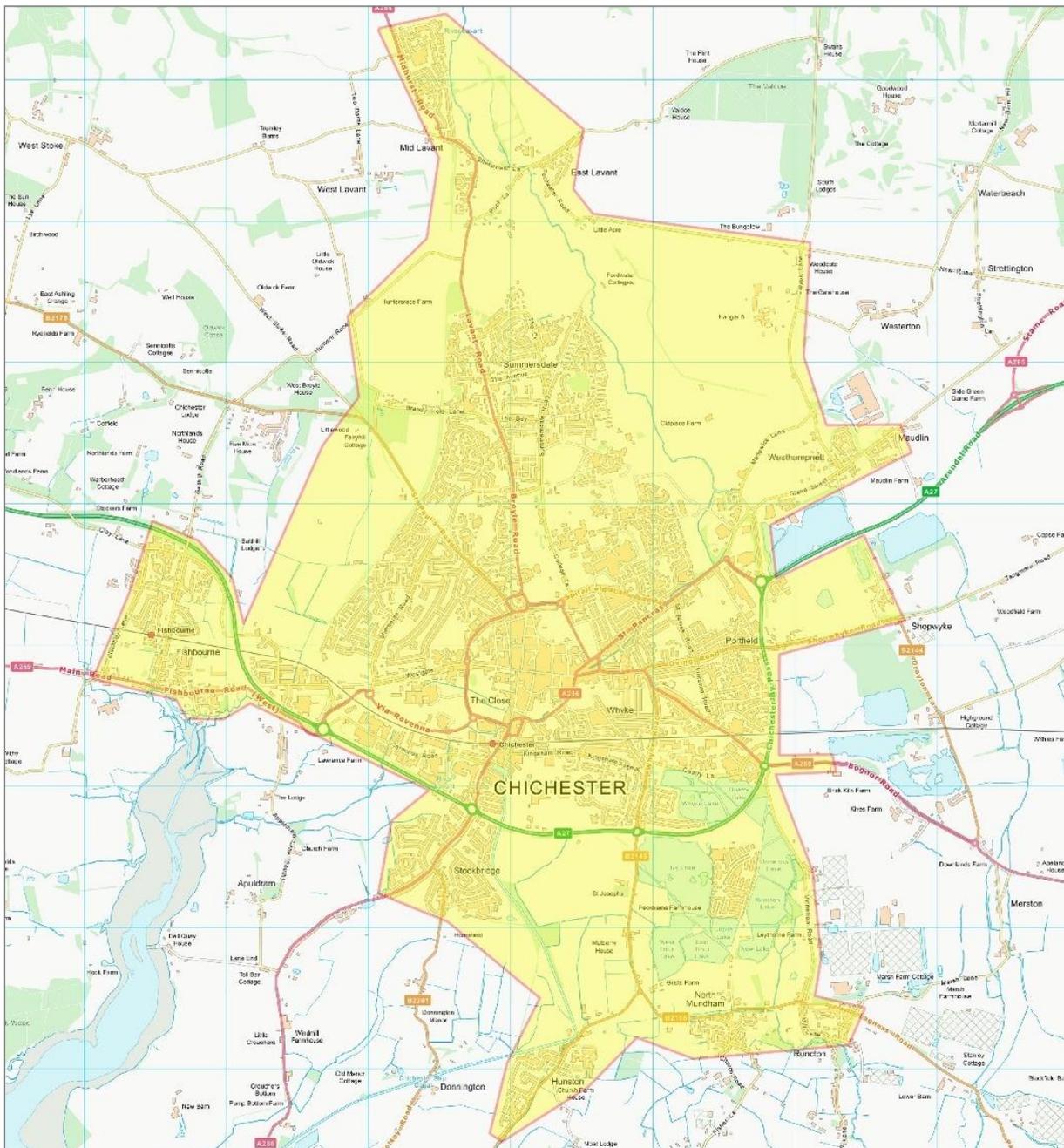
1.3 LCWIPs in West Sussex & Chichester

In 2018, the DfT launched a bid process to offer LCWIP support to a limited number of local authorities. A partnership of West Sussex local authorities, led by West Sussex County Council (WSSC), successfully bid for this support to help develop LCWIPs in the county. WSSC's support has been divided in three ways:

- County-wide LCWIP, looking at strategic routes
- Four locality based LCWIPs (Adur & Worthing, Chichester, Crawley and Horsham)
- South Downs National Park Authority (SDNPA) LCWIP

Stage 1 of the LCWIP process (scoping) was carried out by WSSC and CDC. As part of this stage it was agreed that the Chichester LCWIP should cover the main urban area of Chichester City and adjacent smaller settlements. The LCWIP area is shown in Plan 1 below.

Plan 1: Chichester LCWIP area



1.4 Chichester City area

Chichester District Council (CDC) covers a mostly rural area of over 300 square miles in the west of West Sussex. It has an overall population of around 129,000 (2018 estimates).

As a second tier authority it has a range of responsibilities and powers, including planning and parks. However, most issues affecting transport, including walking and cycling, are the responsibility of West Sussex County Council (WSCC) which is the Highway Authority. This includes public Rights of Way

Much of the district falls within the South Downs National Park, administered by SDNPA. It also includes the Chichester Harbour Area of Outstanding Natural Beauty as well as two National Nature Reserves and many smaller green spaces.

Chichester itself is a cathedral city and the county town of West Sussex (with a city council operating as the third tier of local government). It lies just north of the coast with the SDNP immediately to the north. Chichester has a long history as a settlement from Roman times and was important in Anglo-Saxon times. It is the seat of the Church of England Diocese of Chichester, and Chichester Cathedral itself dates back to the 12th century.

Chichester is served by the West Coastway rail line between Brighton and Portsmouth/Southampton, with Chichester and Fishbourne stations in the LCWIP area. There are regular mainline services to and from London as well as to Worthing and Brighton in the east and Havant, Portsmouth and Southampton to the west.

The city is also the hub of several main road routes. While the A27 south coast trunk road bypasses the city to the south, other main roads such as the A259, A285 and A286 run through the built-up area of the city.

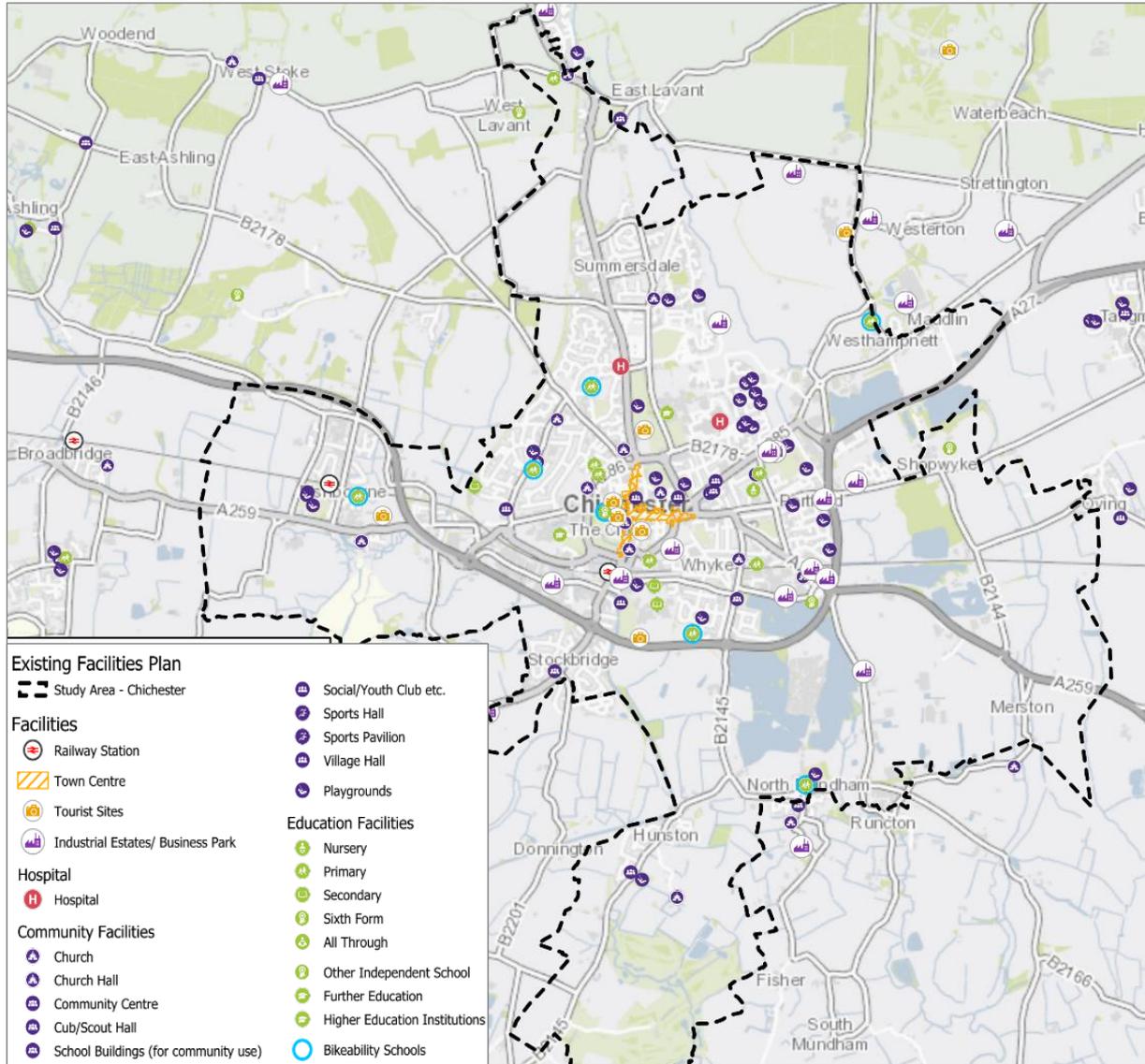
The city has a wide range of businesses, including Rolls Royce Motor Cars, Mercer and the UK headquarters of John Wiley publishers. However, the largest employers are in the public sector: St Richard's Hospital is the largest with over 4,000 staff, with West Sussex County Council and Chichester District Council combined employing over 3,000 staff. Education is also an important focus, with many schools in the LCWIP area. Chichester College is the largest Further Education establishment on the South Coast, with over 20,000 full- and part-time students. The University of Chichester has over 5,000 students at its campus just north of the city centre.

There is also a strong tourism and leisure focus. There are many visitor attractions, including the cathedral, Chichester Festival Theatre, a number of museums (including Pallant Gallery and Fishbourne Roman Palace, just west of the city) and Goodwood Racecourse (just outside the LCWIP area to the north east). The surrounding coast and countryside are also a significant attraction for many visitors. A number of attractive traffic-free routes offer cycling and walking access to these from Chichester, including Centurion Way, Salterns Way and the Chichester Canal towpath (leading to the Selsey Greenway).

The LCWIP area comprises the city plus adjacent settlements, including Fishbourne, Lavant, Westhampnett, North Mundham, Hunston and Stockbridge. It has a population of around 38,000 of which around 32,000 are in Chichester City itself (2018 estimates).

Plan 2 below shows the location of key facilities in and around the LCWIP area.

Plan 2: Main facilities in and around the LCWIP area



Access to Chichester Festival Theatre from Northgate car park



2. Existing cycling & walking

2.1 Summary

Establishing the demand for cycling and walking is a key part of the LCWIP. The following tasks were carried out to deliver this:

- Research into general travel flows in West Sussex and Chichester (based on WSCC data)
- Analysis of cycling and walking data in the LCWIP area
- Audit of cycling and walking provision in the LCWIP area
- Workshop with stakeholders to gather views on key issues and locations

2.2 Travel to work in West Sussex

In 2013 WSCC produced a Census Bulletin³ with transport data from the 2011 census. This provides a wide range of information about travel patterns across the county.

Figure 1: West Sussex Car or Van Availability 2001-2011

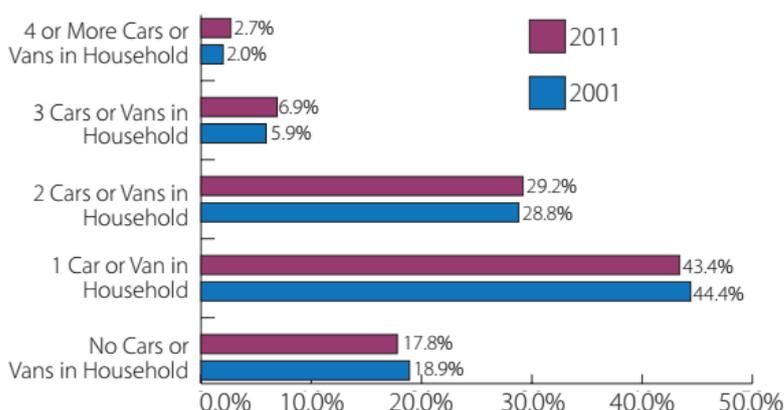
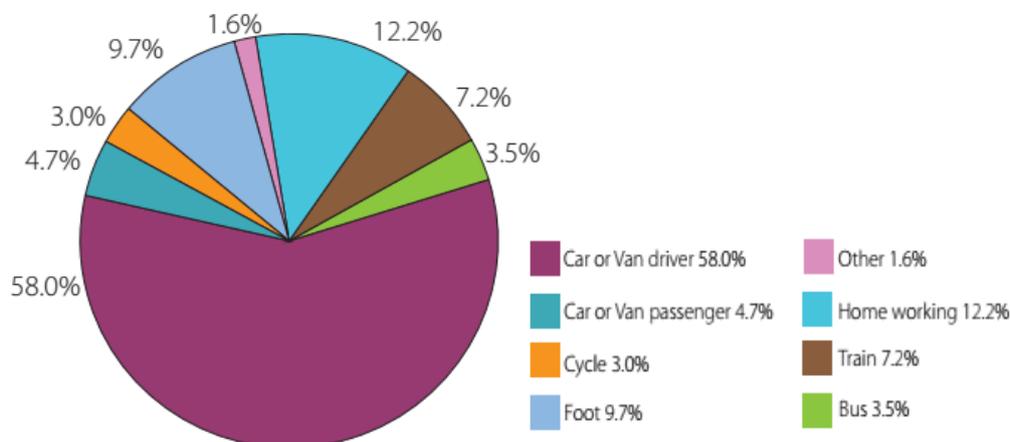


Figure 1 from the Census Bulletin shows that the majority (61%) of households in West Sussex have access to no more than one car or van. Assuming an average of two people per household this means that around 40% of residents do not have access to a private motor vehicle. Many of these will be people who are unable to drive, especially children.

Figure 2: Method of Travel to Work 2011



³ Travel to work and car or van ownership in West Sussex https://www.westsussex.gov.uk/media/2702/censusbulletin_traveltowork.pdf

Figure 2 shows the overall split across West Sussex between different modes (including working from home). The dominant mode is car or van, with walking being just under 10%. At 3%, cycling is higher than the national average and on a par with bus use.

Figure 3: West Sussex Distance Travelled to Work 2001-2011

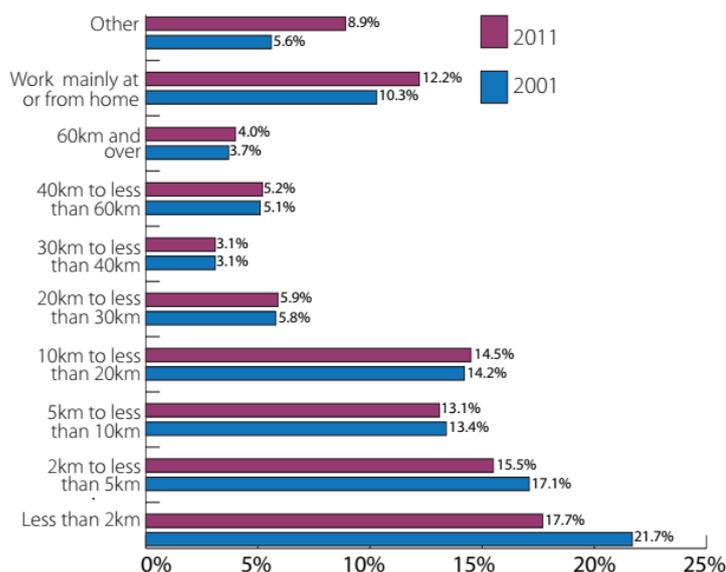


Figure 3 of the Census Bulletin showed the proportion of trips of different lengths. Around 40% of all trips to work are under 5km (3 miles) in length. Despite this, most trips in the county are made by car or van. The high level of short trips demonstrates the potential for increased travel by walking and especially cycling.

The Census Bulletin also includes an appendix with detailed data on trips in local areas of West Sussex. The selections relevant to the Chichester LCWIP are shown below. Note that the column refers to Chichester City only – this does not include the outlying settlements in the LCWIP area. However, these only make up a small proportion of the overall population.

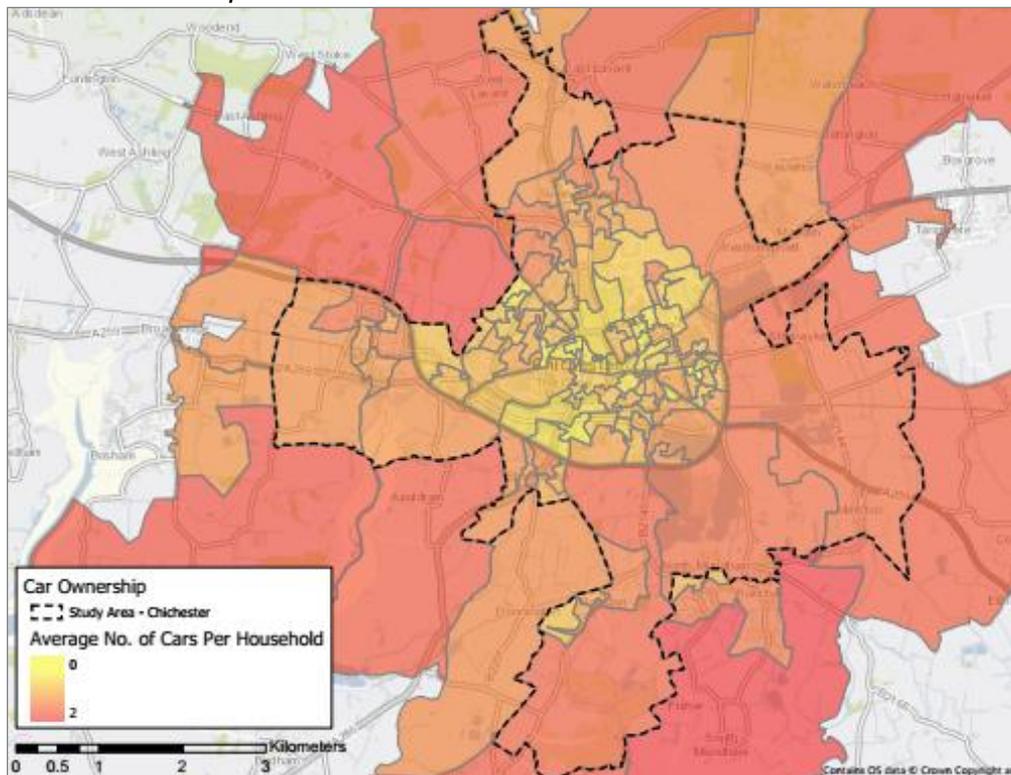
Appendix B.1 Car and van availability (2011)

	Adur District	Shoreham-by-Sea	Arun District	Bognor Regis	Littlehampton	Arun Rural	Chichester District	Chichester City	Chichester Rural
All households	26,957	14,736	66,706	28,932	22,080	15,694	49,848	12,316	37,532
No Cars or Vans in Household	20.6%	20.7%	19.5%	22.2%	21.9%	11.3%	15.6%	27.3%	11.8%
1 Car or Van in Household	46.6%	46.2%	45.2%	44.9%	47.1%	43.0%	42.0%	46.1%	40.7%
2 Cars or Vans in Household	25.7%	25.9%	27.0%	25.2%	24.5%	33.8%	30.8%	21.0%	34.0%
3 Cars or Vans in Household	5.3%	5.3%	6.2%	5.8%	5.0%	8.5%	8.0%	4.1%	9.3%
4 or More Cars or Vans in Household	1.9%	1.9%	2.1%	2.0%	1.5%	3.3%	3.6%	1.5%	4.3%
All Cars or Vans in the Area	32,921	18,014	84,886	35,136	25,982	23,768	71,848	13,183	58,665
Cars or Vans per household	1.22	1.22	1.27	1.21	1.18	1.51	1.44	1.07	1.56

Car and van ownership is lower in Chichester City than anywhere else in West Sussex. Around 27% of households do not have a car or van and nearly half (46%) have only one. The average of 1.07 car or van per household is also the lowest in the county and only increased slightly between 2001 and 2011.

Plan 3 shows the distribution of car ownership in the LCWIP area, showing the concentration of low car ownership in the centre of the city.

Plan 3: Car ownership in and around the LCWIP area



Reflecting the lower level of car ownership in the LCWIP area, the proportion of residents travelling to work by car is around 50%, around 10% lower than the county average. Notably, the overall level of walking (24%) and cycling (8%) are much higher than the county averages (10% / 3% respectively), and are in fact the highest levels in West Sussex.

It is also notable that 10% of residents in employment work from home. However, this is half the rate in the rural areas of CDC, which has the highest level in the county.

Appendix C.1 Method of Travel to Work (2011)

	Adur District	Shoreham-by-Sea	Arun District	Bognor Regis	Littlehampton	Arun Rural	Chichester District	Chichester City	Chichester Rural
Home working	10.2%	10.8%	12.5%	12.2%	10.3%	15.8%	16.4%	9.9%	18.4%
Train	7.3%	7.8%	4.4%	2.9%	5.3%	5.9%	4.3%	3.6%	4.5%
Bus	5.5%	6.2%	2.4%	3.4%	2.0%	1.2%	1.9%	2.1%	1.9%
Car or van driver	58.3%	56.0%	60.8%	59.5%	60.4%	63.7%	56.4%	46.6%	59.4%
Car or van passenger	5.1%	4.8%	6.1%	7.4%	5.9%	4.1%	3.9%	4.6%	3.8%
Cycle	3.7%	3.9%	3.6%	4.0%	4.3%	2.2%	4.1%	7.8%	2.9%
Foot	7.8%	8.3%	8.3%	8.9%	9.9%	5.4%	11.3%	23.9%	7.4%
Other	2.1%	2.1%	1.8%	1.8%	1.9%	1.7%	1.7%	1.6%	1.8%
All people aged 16-74 in employment	29,356	16,557	67,443	29,304	21,156	16,983	53,285	12,594	40,691

The length of trips gives some indication of why this might be the case. Over half of work trips made by residents of the Chichester City area are under 5km (3 miles), with a high level of 40% of trips under 2km (NB this excludes people working from home). This is the highest level in the county, although at 48% Worthing is a close second.

There is a clear contrast with the travel patterns of the workforce in Chichester City (not shown) where around 30% have a trip to work of 5km or less.

Appendix D.1 - Distance Travelled to Work (2011)

	Adur District	Shoreham-by-Sea	Arun District	Bognor Regis	Littlehampton	Arun Rural	Chichester District	Chichester City	Chichester Rural
Less than 2km	16.6%	17.4%	17.0%	18.0%	22.0%	9.0%	19.0%	39.9%	12.6%
2km to less than 5km	16.9%	12.7%	12.6%	12.6%	13.4%	11.8%	10.6%	11.1%	10.5%
5km to less than 10km	20.2%	24.7%	19.2%	23.0%	13.0%	20.6%	11.5%	7.8%	12.6%
10km to less than 20km	12.3%	9.9%	13.3%	9.8%	17.1%	14.6%	14.5%	9.1%	16.2%
20km to less than 30km	3.8%	3.8%	5.1%	5.1%	4.4%	6.1%	6.2%	5.7%	6.3%
30km to less than 40km	3.8%	4.6%	2.7%	2.2%	2.7%	3.5%	2.8%	1.6%	3.2%
40km to less than 60km	1.3%	1.4%	3.1%	2.6%	3.2%	3.8%	3.7%	3.8%	3.7%
60km and over	4.4%	5.7%	4.6%	3.9%	4.8%	5.5%	5.5%	3.7%	6.1%
Work mainly at or from home	10.2%	12.4%	12.5%	12.2%	10.3%	15.8%	16.4%	9.9%	18.4%
Other	10.4%	12.1%	9.9%	10.6%	9.2%	9.4%	9.8%	7.4%	10.5%

2.3 Data on cycling & walking in Chichester

National Travel Survey (2017-18)

DfT figures from 2017-18 showed that 18.1% of adults in Chichester District (as a whole) cycled at least weekly, either for travel or leisure (the highest levels in West Sussex), with 4.6% cycling five times a week. The figures for cycling for travel only were 8.4% and 2.4% respectively.

The equivalent figures for walking show that 75.6% of adults in Chichester walked at least weekly, either for travel or leisure, with 41.2 doing so five times a week. The figures for walking for travel only were 41.6% and 18.6% respectively.

Census data (2011)

The 2011 census revealed a high level of cycling, with 4.9% of trips to work by cycle in Chichester District (as a whole). Many of these were within the LCWIP area.

Table 2 below shows the level of cycling to work in wards either partly or fully in the LCWIP area. The four wards in the city had levels of cycling to work ranging from 7% to 11%. Wards immediately outside the city itself also had higher than average levels of cycling, with both Donnington and Fishbourne exceeding 8% despite the severance created by the A27.

Only 13.5% of trips to work in the CDC area were on foot, though in Chichester City the levels were much higher, ranging from 22.7% to 29.4%. Apart from Donnington, walking levels in neighbouring areas were much lower than for the four city wards, with distance presumably having a greater effect than for cycling.

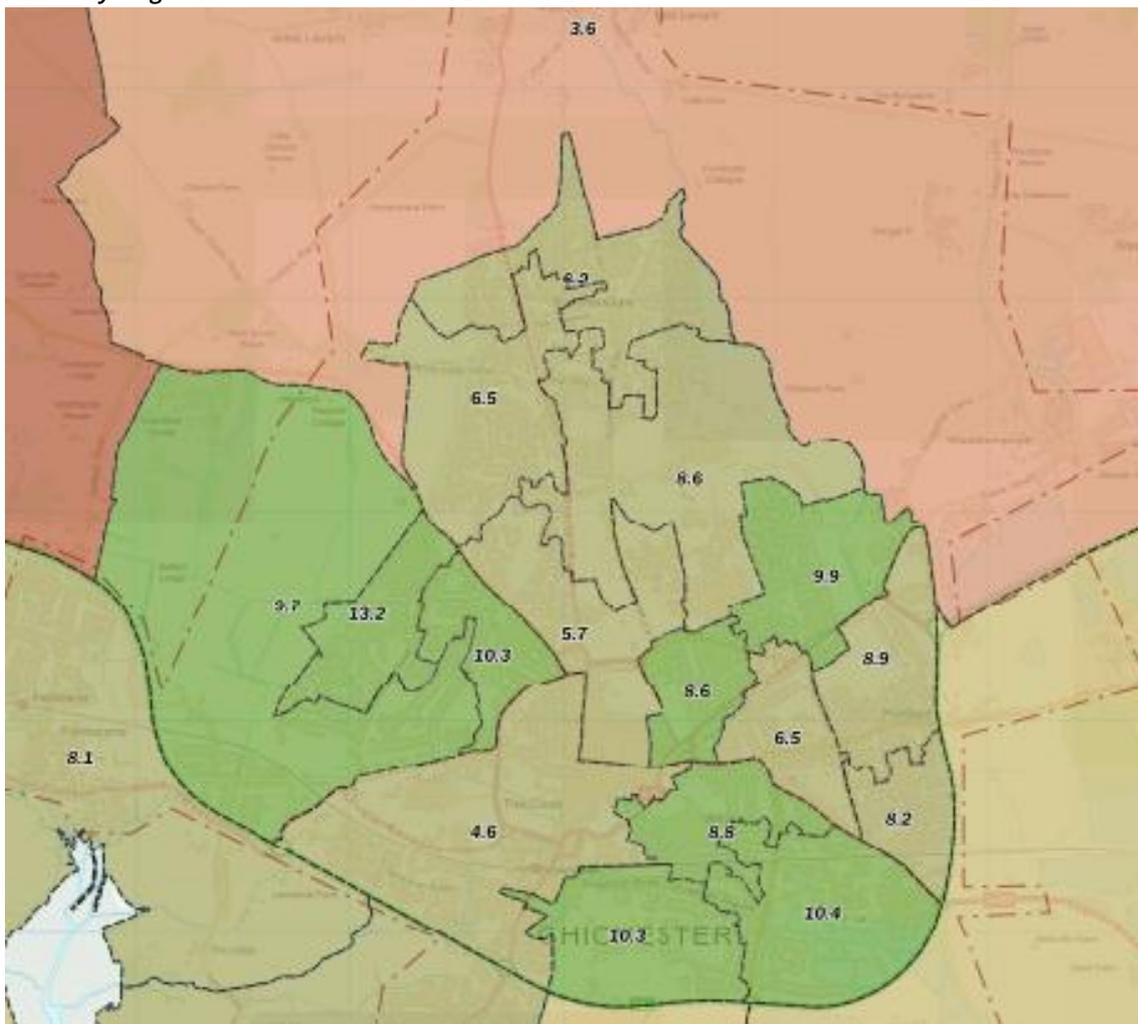
Table 2: Cycling & walking levels, 2011 census (NB ward boundaries at the time of the 2011 census)

Ward	Cycling	Walking
Chichester East	8.64%	28.72%
Chichester North	6.94%	22.64%
Chichester South	8.59%	29.41%
Chichester West	11.07%	22.70%
Donnington	8.59%	12.32%
Fishbourne	8.13%	6.48%
Lavant	3.59%	6.09%
North Mundham	4.74%	6.76%

The Department for Transport developed the Propensity to Cycle Tool (PCT) as part of its Local Cycling & Walking Infrastructure Plan (LCWIP) guidance. While it is designed to show how cycling might increase under different scenarios (this will be used later in the LCWIP), it can also be used to show data from the census

Plan 4 below shows 2011 census cycling to work levels in Lower Super Output Areas (LSOA) in the LCWIP area. LSOAs are used by government to represent geographic areas with equal population levels, giving a clearer understanding than wards. The higher cycling levels in Chichester City can be seen in more detail when plotted as LSOAs.

Plan 4: Cycling to work in and around the LCWIP area

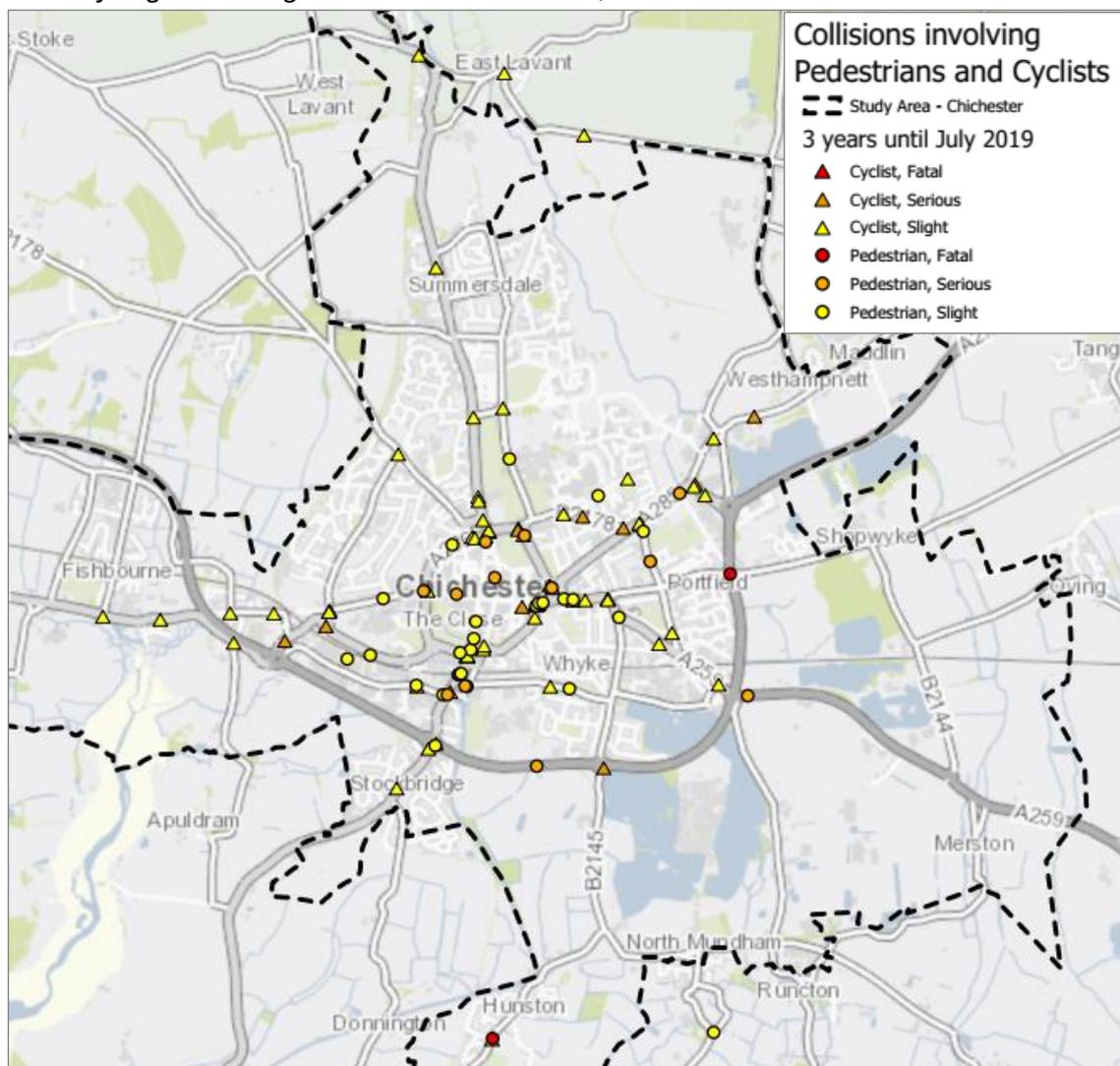


Collision data

Figures for collisions and casualties give an indication of the level of risk to people cycling and walking in the LCWIP area. However, it is important to note that the most severe injuries (commonly described as Killed or Seriously Injured – KSI) are thankfully rare, and are usually not a statistically significant way to show which locations are the most hazardous. While slight injuries are more common, a large proportion of these are often not notified to police.

Plan 5 below shows the distribution of collisions of varying severity across the LCWIP area. It can clearly be seen that in the main most injuries were incurred at main roads in the area. There were notable clusters around the Chichester ring road at the Northgate, Hornet and Southgate gyratory systems.

Plan 5: Cycling and walking collisions in the LCWIP area, 2016-2019



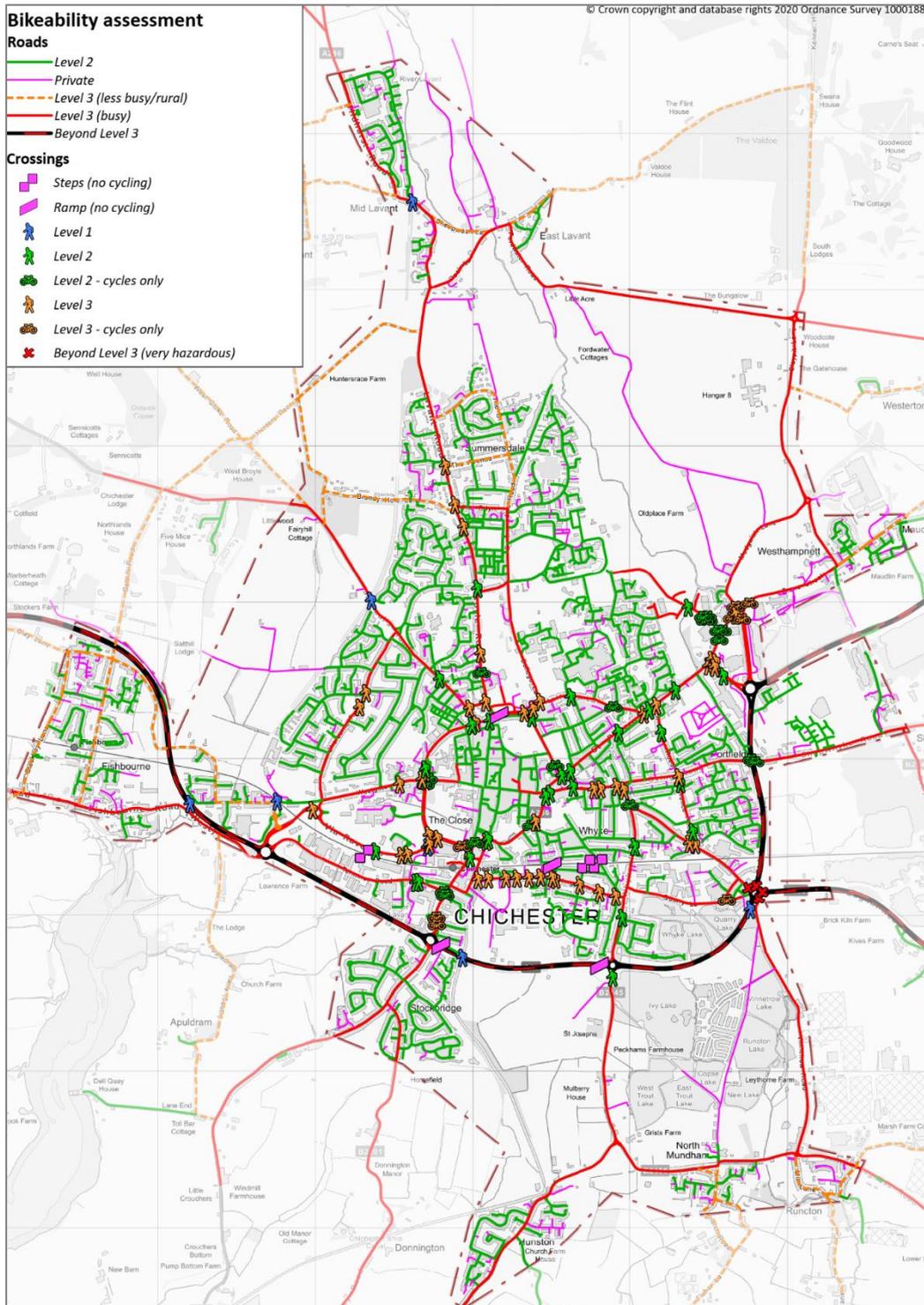
2.4 Provision for cycling & walking in Chichester

To assess how safe and convenient it is to cycle around Chichester, a desk-based study was carried out to assess the level of cycling skills needed to use the highway network. This was followed up by site visits to investigate crossing points on the network.

The process was based on Transport Initiatives' Cycle Skills Network Audit, scaled back for speed and cost-effectiveness (omitting an area-wide assessment of paths and cycle tracks).

Plan 6 below shows the whole LCWIP area, while Plan 7 shows the central area.

Plan 6: Bikeability assessment of roads and crossings in the LCWIP area



Plan 7: Bikeability assessment of roads and crossings in the central LCWIP area

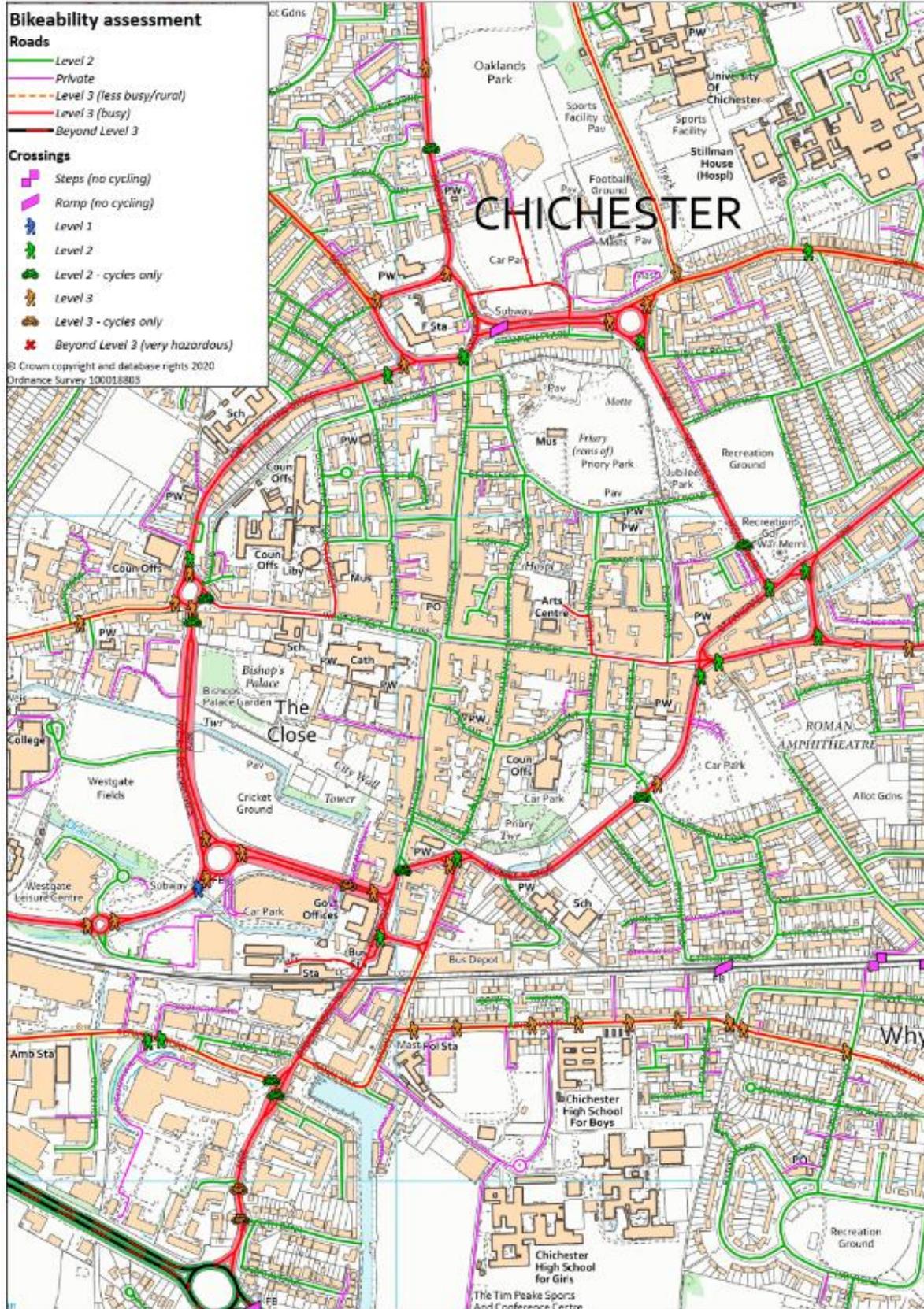


Table 3 below explains the levels used in these plans.

Table 3: Bikeability assessment audit levels

Level	Type	Description
Level 2	Road	Residential or other quiet street, suitable for most people cycling including older children (i.e. with skills equivalent to Level 2 Bikeability)
Private	Road	Private street – access may be allowed at some times (generally similar to Level 2)
Level 3 (less busy/ rural)	Road	Busier road in urban areas (e.g. rat run) or minor road in rural areas with lower traffic but high speeds, generally only suitable for less risk averse cyclists
Level 3 (busy)	Road	Busy road only suitable for less risk averse cyclists (i.e. with skills equivalent to Level 3 Bikeability)
Beyond Level 3	Road	Very busy road with fast moving traffic, unsuitable even for experienced cyclists (e.g. A27)
Steps	Crossing	Grade-separated crossing (bridge or subway) with steps
Ramp	Crossing	Grade-separated crossing with ramp but cycling prohibited
Level 1	Crossing	Grade-separated crossing with ramp with cycling allowed
Level 2	Crossing	Higher quality/protected crossing – walking only
Level 2 – cycles	Crossing	Higher quality/protected crossing – walking & cycling (or cycling-only)
Level 2	Crossing	Lower quality/unprotected crossing – walking only
Level 2 – cycles	Crossing	Lower quality/unprotected crossing – walking & cycling (or cycling-only)
Beyond Level 3	Crossing	Hazardous crossing for any user

The audit shows that while there are areas where cycling is relatively safe and convenient, these are generally surrounded by roads that only people who feel confident cycling will be prepared to use. This especially applies to the A286 inner ring-road which restricts cycling (and indeed walking) access between the central area of Chichester and the rest of the city. Road barriers are compounded by other physical features such as the railway.

In the outlying part of the city, and especially the more rural areas, there are little or no alternatives to using unsuitable roads classified as Level 3 or beyond.

Level 3 road (A286 Avenue de Chartres) with sub-standard width cycle track & footway



Crossing provision is also very poor. There are a large number of Level 3 crossings, including every crossing on Kingsham Road/Avenue. Apart from the Barnfield Drive/Westhampnett Road roundabout, there are very few Level 2 crossings which permit cycling.

The crossings of the railway and A27 are particularly poor, with only one grade-separated crossing of the railway and two of the A27 where cycling is allowed (though there are other bridges across the A27 where cycling is prohibited).

Plan 8 below shows Rights of Way and cycle routes. Note these were not audited in detail at this stage as this was done as part of the future route development process. The dotted blue lines include cycle routes which combine both traffic-free and on-road infrastructure.

While there are several useful and good quality traffic-free routes for walking and cycling (notably Centurion Way, Saltern's Way and the Chichester Canal towpath), connectivity to these is poor. There are also considerable areas of the city with low standard provision and others with little or no provision, especially in the north of the LCWIP area.

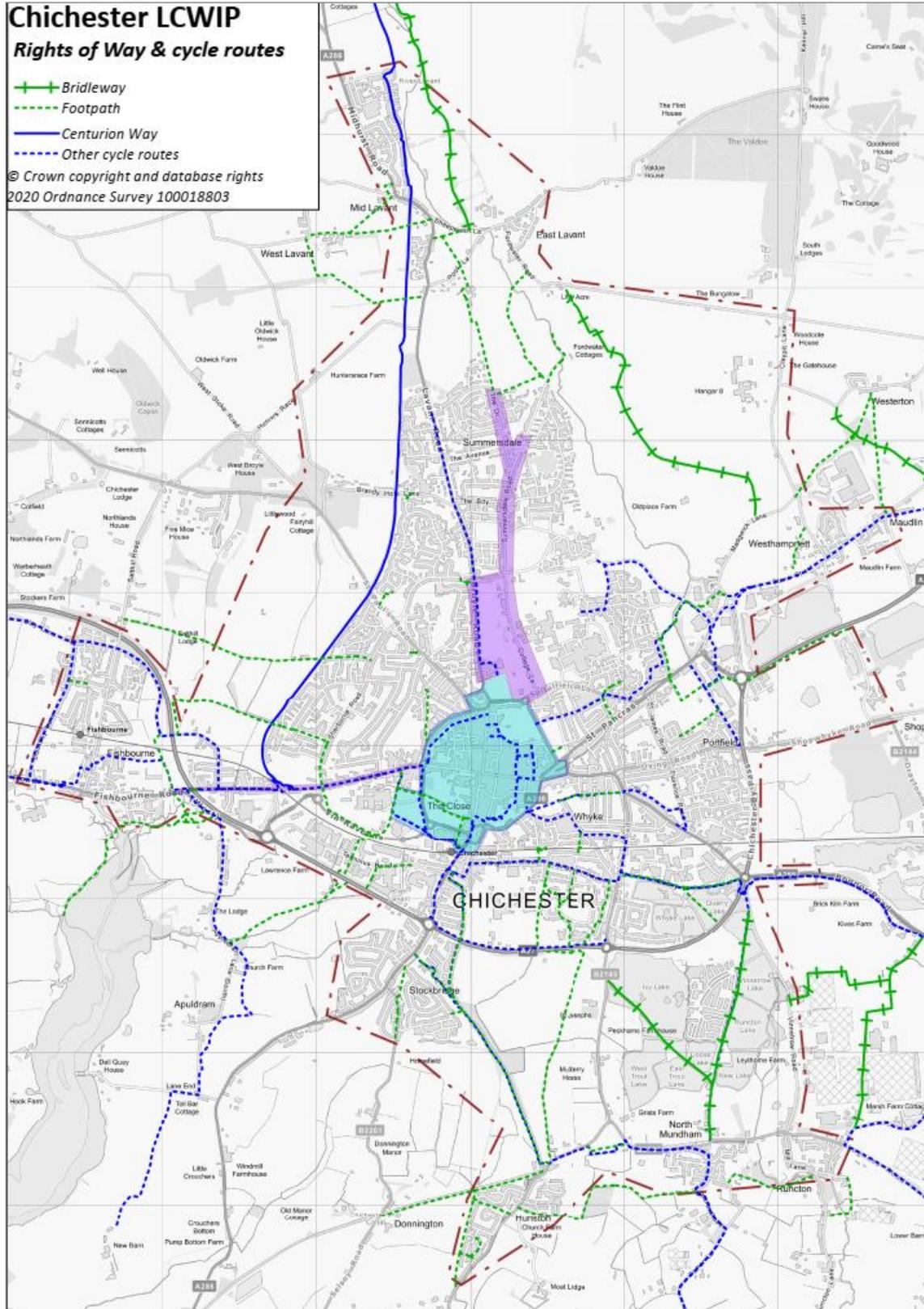
Level 3 crossing of A286 Avenue de Chartres north of station



Level 3 crossing of B2145 Lagness Road at Foxbridge Drive, Hunston (NCN route)



Plan 8: Rights of Way and cycle routes in LCWIP area (also showing core walking zone & key walking routes)

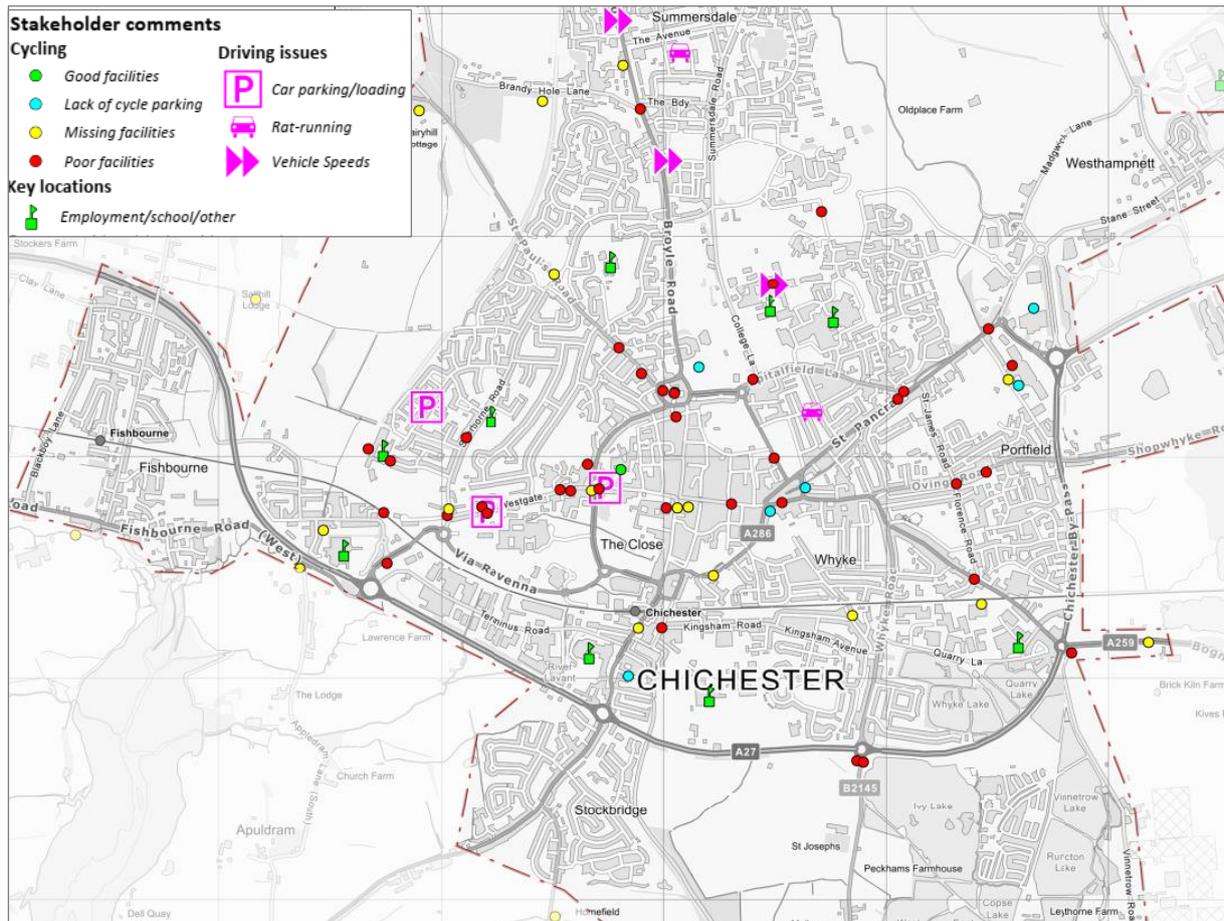


2.5 Stakeholder input

As well as data based on existing travel patterns and the road and path network, the views of key stakeholders are important. These can help to reveal areas where there are concerns or where improvements might be most beneficial.

A stakeholder workshop was held in July 2019 to gather information on the key issues. Plan 9 shows the outputs from the workshop. Detailed comments (provided separately) were gathered from participants and used later in the LCWIP process to help refine walking and cycling proposals.

Plan 9: Stakeholder comments



Stakeholder workshop



3. Potential for cycling & walking

3.1 Introduction

Developing and planning a potential cycle network can be a complex process, but essentially relies on building up options that deliver suppressed demand while being realistic and deliverable. The stages to be followed are:

- Analysing existing and potential trips, based on demand
- Identifying corridors to deliver the demand-led trips
- Prioritising corridors for further assessment
- Developing priority routes in more detail and identifying improvements

Planning strategic improvements for walking is somewhat different, since in most cases the core infrastructure (footways) are already present. Furthermore, walking is generally more evenly distributed than cycling. Hence, the stages to be followed are:

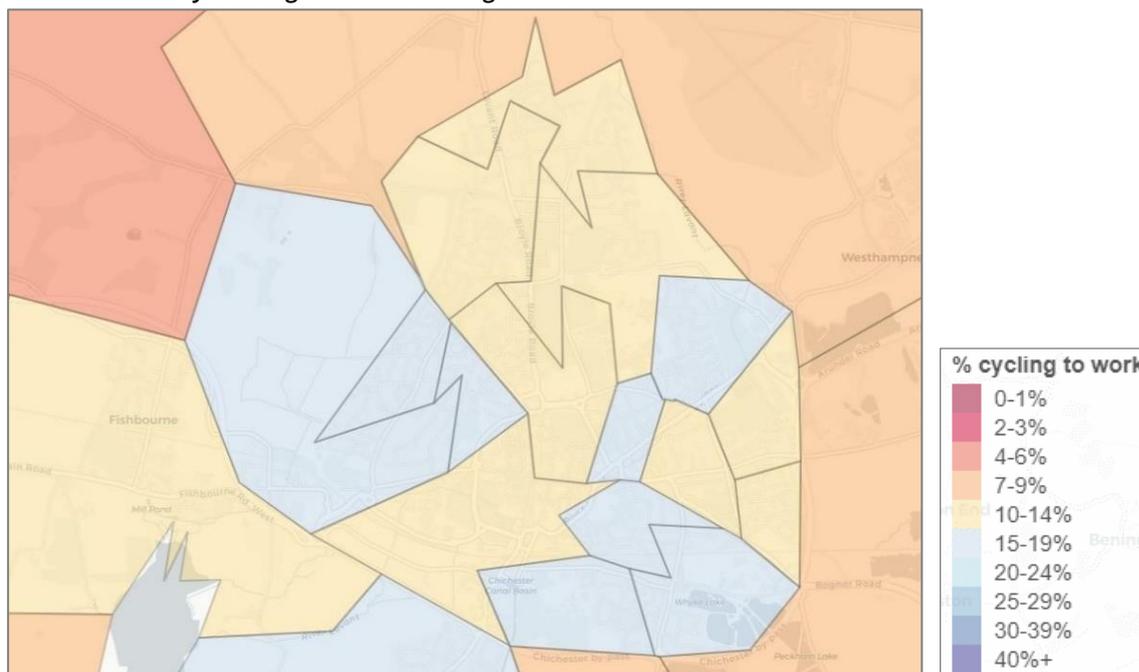
- Defining Core Walking Zone(s) and key walking routes
- Auditing Core Walking Zone(s) and key walking routes
- Identifying improvements

3.2 Potential for cycling

By understanding and analysing data on actual cycle trips, the future network can be planned to serve the highest number of trips. The DfT's Propensity to Cycle Tool (PCT) shows the increase in cycling, based on a range of scenarios. The PCT extrapolates from current cycling patterns based on cycle trip distances and hilliness. This can then be used to show where people might cycle if it was safe and convenient.

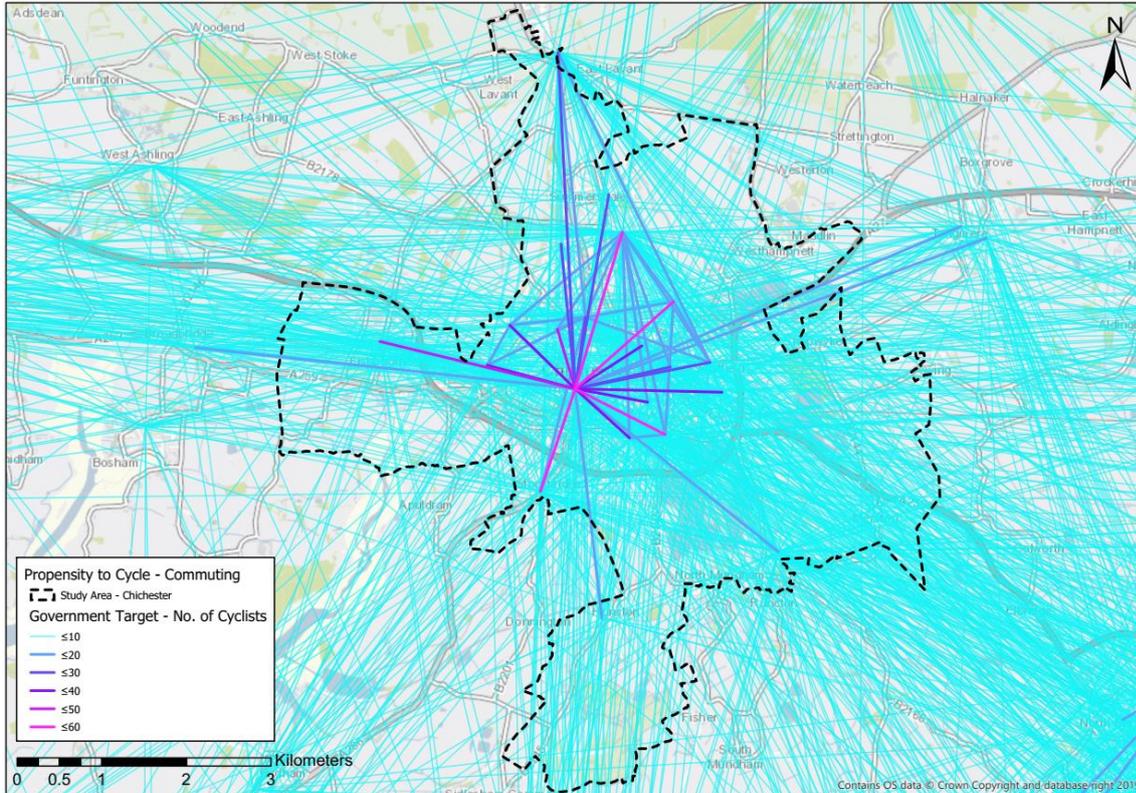
For the Chichester LCWIP, the "Government Target – near market" scenario was used. This shows the increase based on an overall national doubling of cycling, concentrated where the types of trips and socio-demographic profile both support cycling. While cycling levels would increase across the LCWIP area, the largest increases are in the west and south.

Plan 10: PCT analysis using Government Target – near market scenario

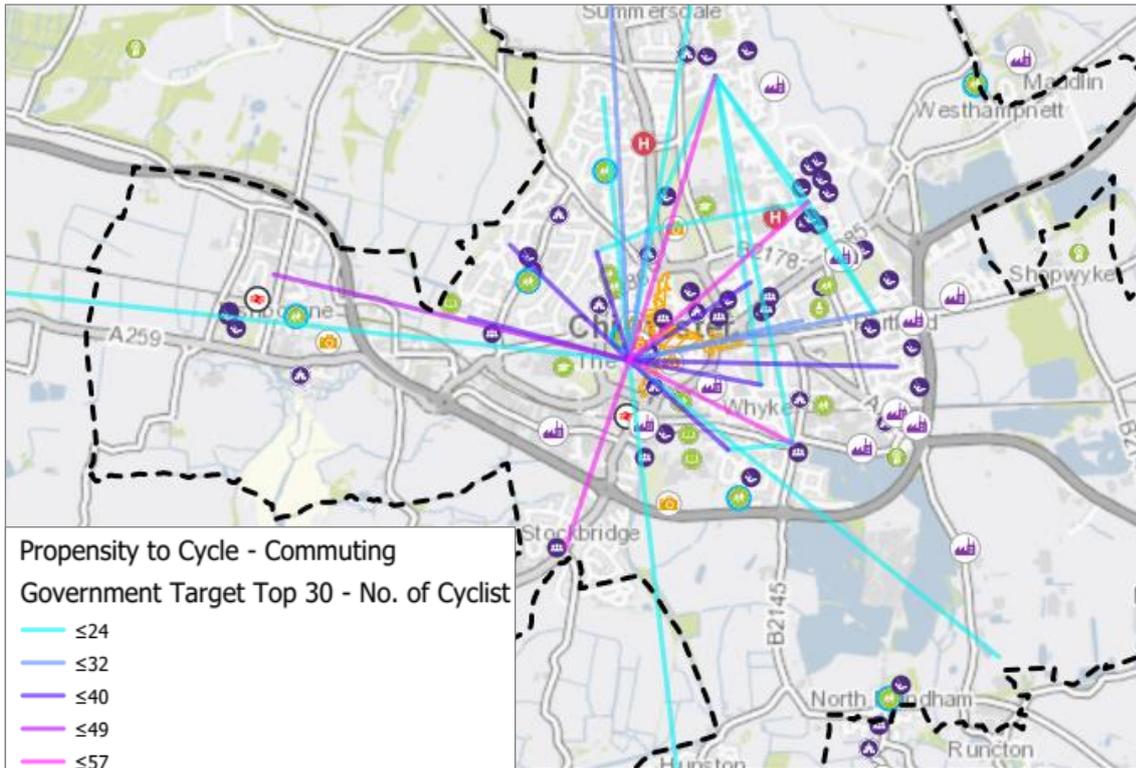


These increases can be examined in more detail to show the origins and destinations of trips. Plan 10 shows the overall level in each LSOA area. Plan 11 shows idealised straight-line trips between all LSOA pairs, with the most significant trips highlighted. This shows that the highest potential routes are almost all radial (into/out of the centre of Chichester).

Plan 11: PCT analysis of origin-destination trips under Government Target – near market scenario



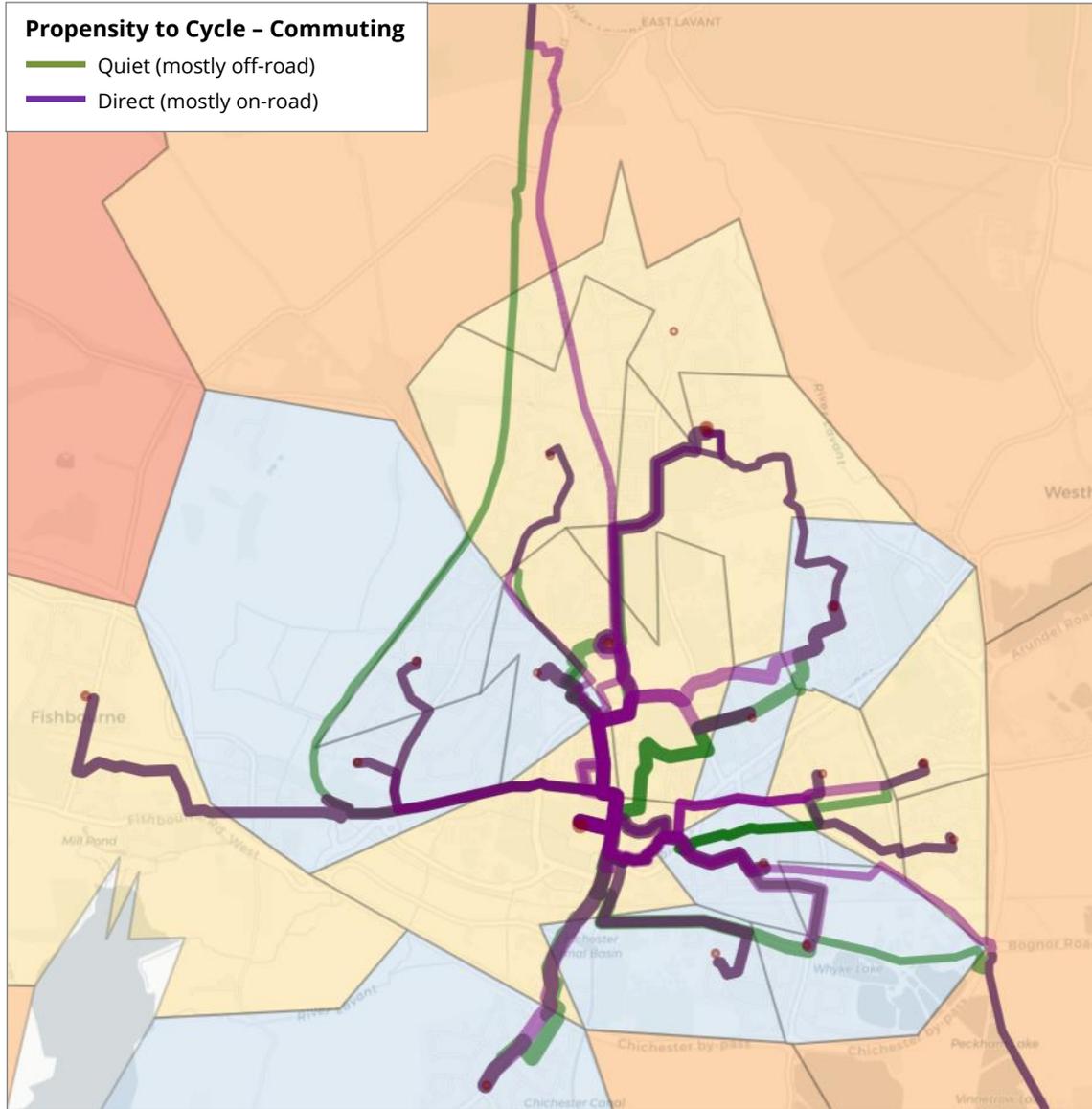
Plan 12: PCT analysis of top 30 origin-destination trips under Government Target – near market scenario



The PCT allows these trip corridors to be plotted against the actual route network, rather than idealised straight lines. Plan 13 shows the same top 30 potential trip alignments, using the road and path layout in the LCWIP area. Note that green lines show quiet (generally off-road) trips while purple lines reflect more direct trips along the road network. The thickness of the line shows the level of potential trips.

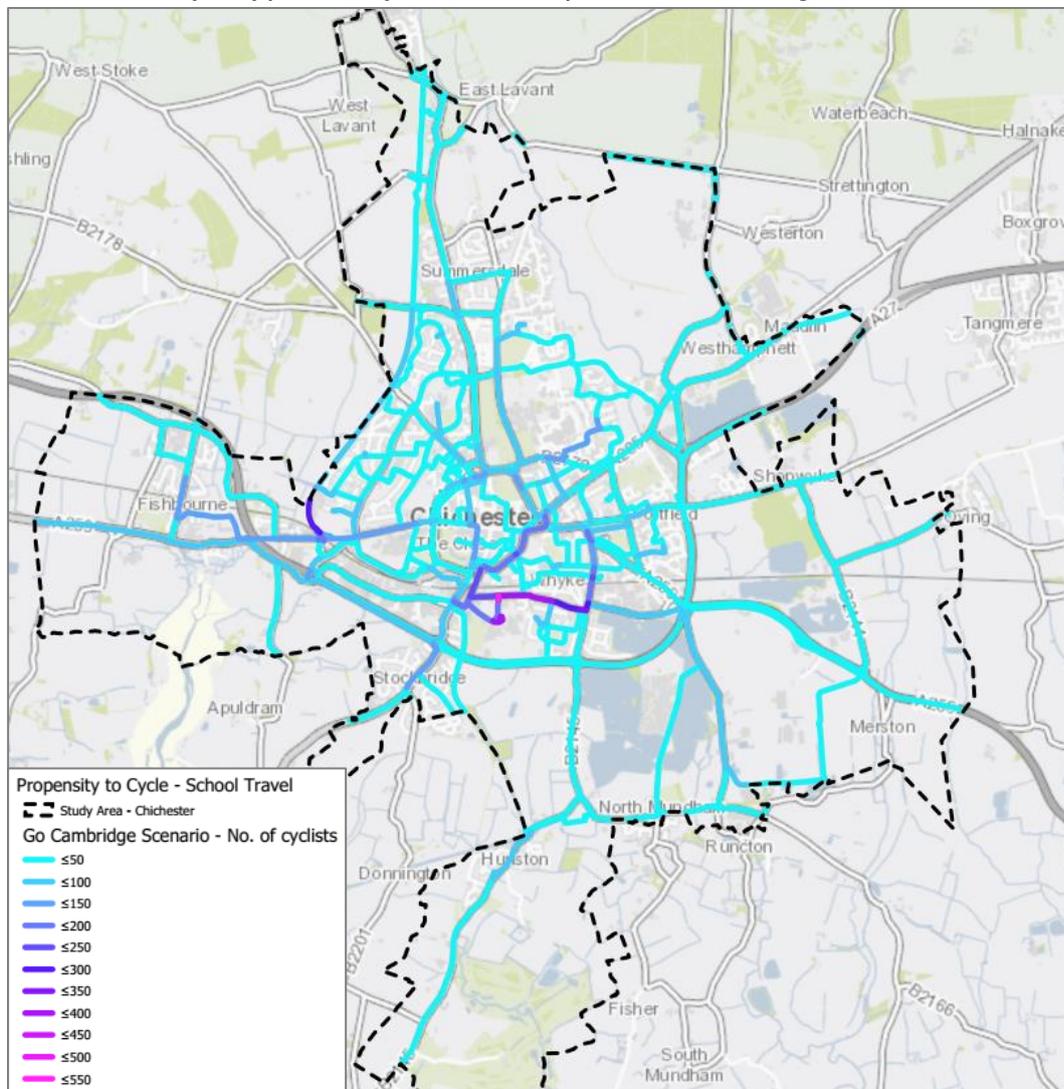
It is important to appreciate that these are potential trips assuming improvements for cycling. Hence some trips are shown along roads which most people would consider to be currently unsuitable for cycling.

Plan 13: PCT analysis of top 30 potential trip alignments under Government Target – near market scenario



While the PCT was initially designed only to assess data on cycling to work, it has recently been revised to include cycling to school, with different scenarios. Plan 14 shows potential cycle journeys under the “Go Cambridge” scenario, in which the pattern of pupils travelling to school would be similar to that in Cambridge.

Plan 14: PCT analysis of potential cycle to school trip under “Go Cambridge” scenario



Issues with cycle demand analysis

It is important to note that the PCT is based on the 2011 census and hence does not take into account any changes in either residential or workforce population since that date. It also only uses travel to work or school data.

Furthermore, the modelling does not allow for future developments, such as those planned at White House Farm and Tangmere. As these are highly significant in the study area, these need to be addressed in terms of the potential for cycling based on the level of population increase. A realistic target would be for 15% of trips to be made by cycle, matching the highest level in the Government Target scenario shown above.

Where there is no evidence of demand, the development of routes along other desire lines identified in policies and plans may still be justified in terms of leisure and recreation. Using this as the basis for a route will lead to a different approach to alignments and type of infrastructure.

Initial suggestions for route corridors

Based on the analysis of the road and path network, a set of possible corridors was developed for further assessment. These were assessed in detail and presented at a second workshop for stakeholders in November 2019. Many detailed comments were received which were used to help refine the proposed routes. Plan 15 below shows the routes, split into four quadrants to reflect the format used at the workshop.

Plan 15: Potential route options (quadrants as used at Stakeholder meeting)

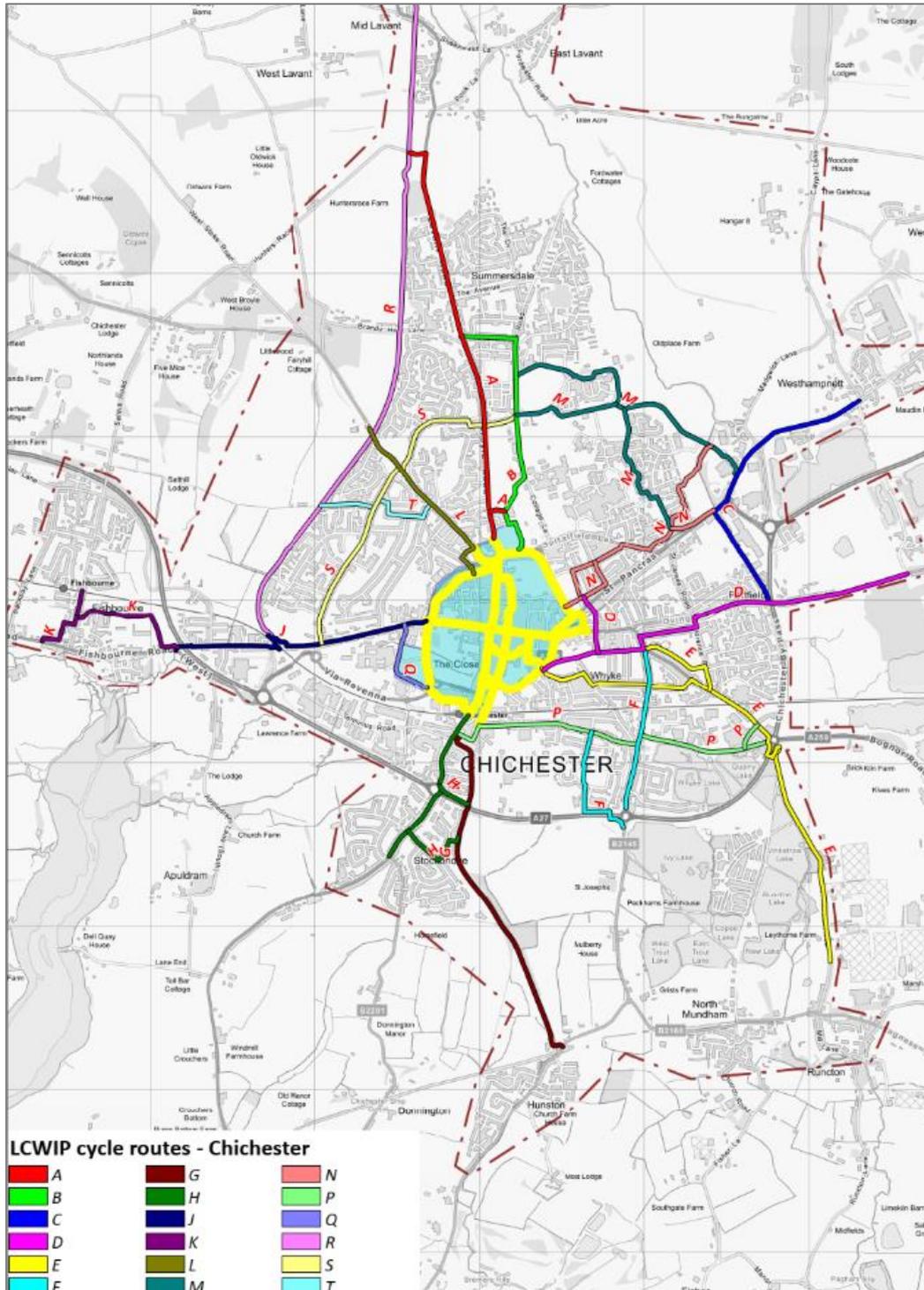


Route network

An initial version of the proposed network was developed taking into account all the factors discussed above. The network was subsequently refined following discussions between the consultants, CDC and WSCC. Routes were split into those where the lead responsibility for promoting the route would be taken by CDC, WSCC or another party (including developers). It was not considered necessary for routes to be prioritised further at this stage.

The initial version of the proposed network is shown in Plan 16, with the final version shown in Plan 19 below.

Plan 16: Initial version of proposed network



All the proposed routes lie outside the core area and terminate at the A286 ring road. Improvements to links within the core area have not been allocated to individual routes since it would be difficult to define specific alignments and most trips will use a number of links.

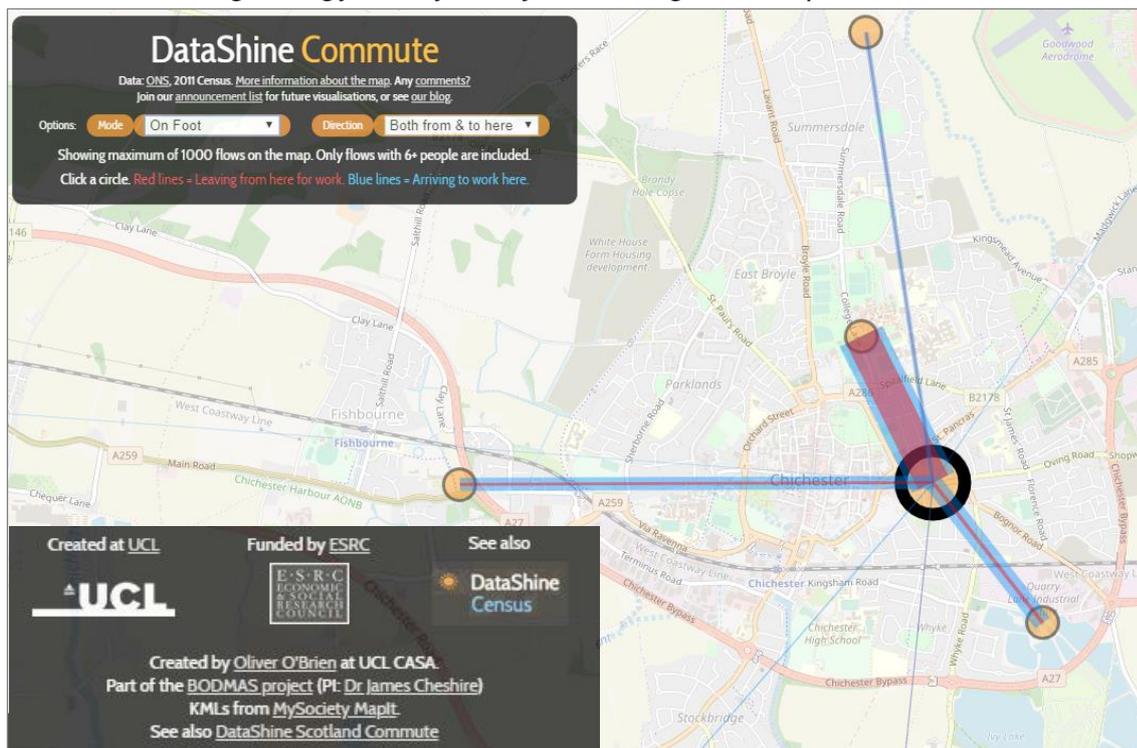
3.2 Potential for walking

There is no version of the PCT which can be used for walking. However, the Core Walking Zone (CWZ) was defined based on the cluster of key destinations in the city centre. The ring road forms a distinct boundary, matching for the most part the historic city walls. Hence this area was defined as the CWZ. This definition was mostly supported by the stakeholder workshop, which recommended extending the CWZ to incorporate three key destinations:

- Chichester station
- Chichester College
- Chichester Festival Theatre

Defining key walking routes is less straightforward and requires detailed analysis of raw census data. A tool which allows this to be done without excessive work is the Datashine portal⁴ which provides analysis of data from the 2011 census. Plan 17 shows walking trips between areas of Chichester which establishes shows that the main flows are to the north, south-east and west of the city centre.

Plan 17: Main existing walking flows to/from city centre (using Datashine portal)



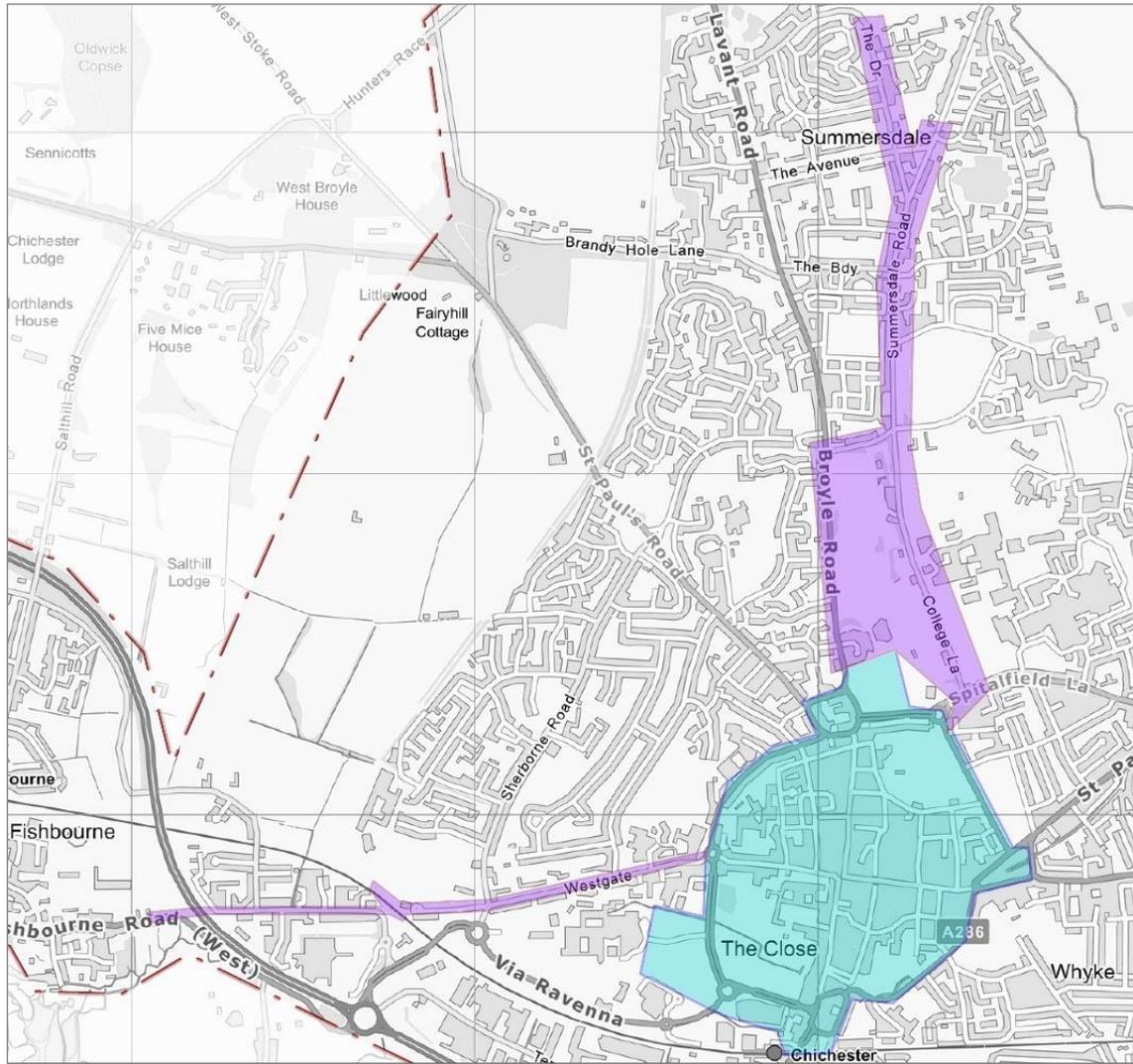
Following discussions with officers, it was agreed that two routes should be assessed in detail:

- North of CWZ – key destinations include Chichester University and St. Richard’s Hospital, extended to Summersdale
- West of CWZ – key destinations include Bishop Luffa school, White House Farm development, Centurion Way and links to Fishbourne

⁴ <https://datashine.org.uk/>

Plan 18 shows the Core Walking Zone with the two key walking route corridors.

Plan 18: Core Walking Zone (blue) and key walking route corridors (purple)



Signed walking route to town centre through Northgate car park



4. Cycling assessment & proposals

4.1 Summary

Desk research and site visits were carried out to investigate and assess the existing and potential alignments for the possible route options (both on- and off-road). Plan 18 below shows the final version of the network that was reviewed in more detail.

The review process included the following stages:

- Assessment of existing routes (both roads and paths) to determine if they are fit for purpose, based on the DfT Route Selection Tool (RST)
- Identification of links to fill gaps in the network or replace sub-standard sections
- Identification of routes and route sections to match the alignments revealed by the demand assessment and/or satisfy desire lines identified by stakeholders.

Note that routes where the "route promoter" is WSCC or developers were not assessed in detail for feasibility or cost. This includes routes forming part of the draft county LCWIP.

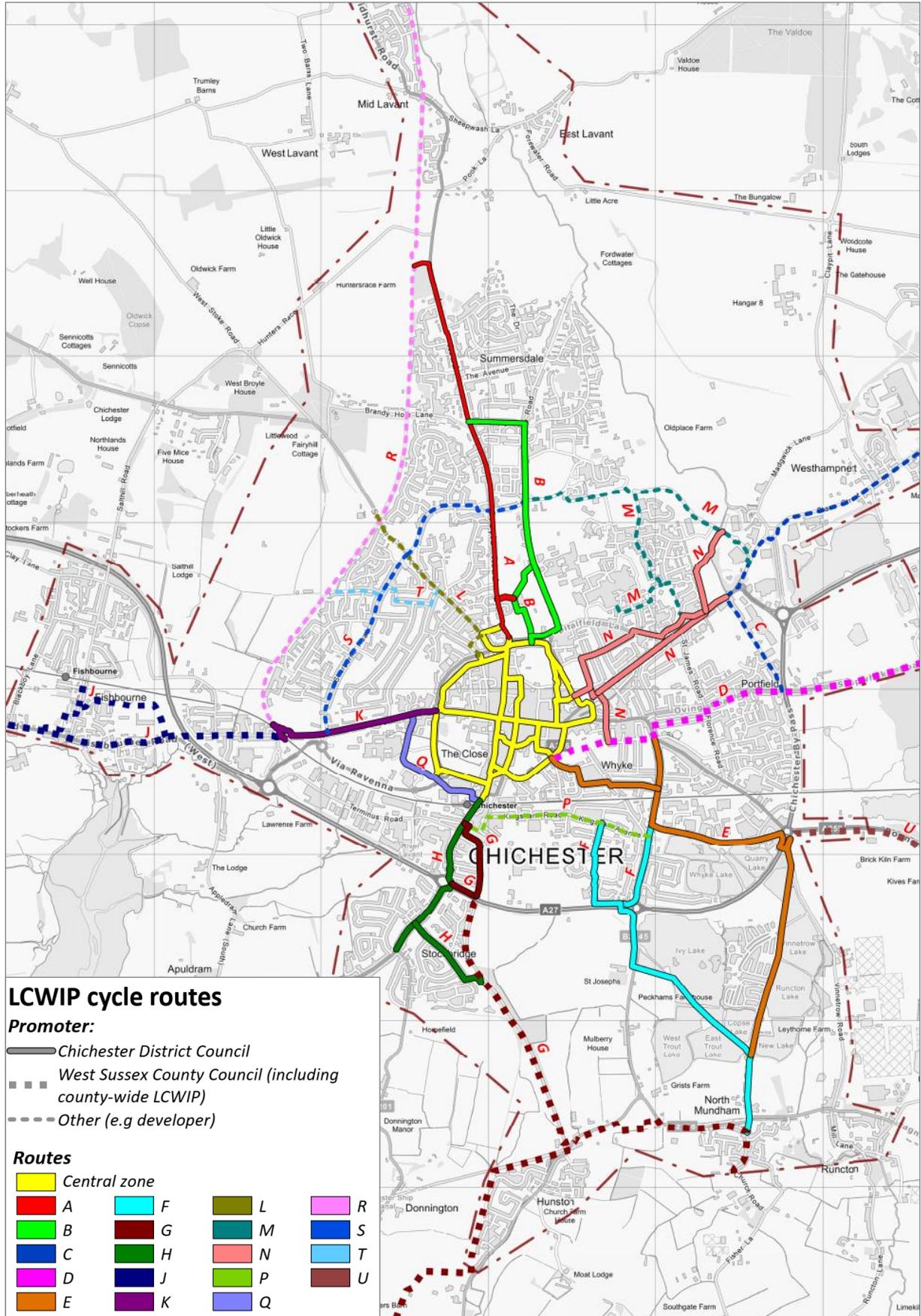
4.2 Routes

As part of the review, the network was divided into 19 individual routes, listed in Table 4. The total length of these routes (including spurs) is 57km, including 7km in the core area.

Table 4: Proposed cycle routes

Route	Name	Promoter	Length (km)	
			Main	Spur(s)
Core area			7.0	
A	Lavant	CDC	2.4	0.1
B	University	CDC	1.8	0.5
C	Westhampnett	Other	2.3	
D	Shopwyke	WSCC	2.5	
E	Vinnetrow	CDC	3.6	
F	North Mundham	CDC	2.5	0.6
G (north)	Chichester Canal	CDC	0.5	0.2
G (south)	Selsey Greenway	WSCC	4.4	1.4
H	Stockbridge	CDC	1.1	0.6
J	ChEmroute	WSCC	2.3	1.2
K	Westgate	Other	1.2	
L	St Paul's	Other	1.2	
M	Graylingwell	Other	1.6	1.3
N	St Pancras	CDC	1.6	1.5
P	Kingsham	Other	1.2	
Q	College	CDC	0.8	
R	Centurion Way	Other	6.8	
S	Sherborne	Other	2.1	
T	Parklands	Other	0.8	
U	Bognor-Chichester	WSCC	2.0	

Plan 19: Final version of proposed network



4.3 Route assessment

As noted above, detailed assessment of the routes focused on those expected to be developed and promoted by CDC: A, B, E, F, G north, H, K, N and Q. While the other routes are also important, these will be promoted and developed by either WSCC or a third party (including developers), or form part of wider plans.

Three routes are included in the draft county LCWIP: G south (Selsey Greenway), J (ChEm-route, being developed by Highways England) and U (Bognor – Chichester).

The assessment involved the application of the DfT’s RST to the existing route alignment and then to the route following the proposed interventions. This shows the level of improvement that can be achieved.

The RST measures quality of a route using five key criteria: Connectivity, Safety, Directness (deviation from straight line distance), Gradient and Comfort. Routes were divided into sections with similar characteristics and scored against these five criteria, from 0 (poor) to 5 (excellent). Junctions considered to be hazardous to cycling were also identified and recorded (described as ‘critical junctions’).

The LCWIP technical guidance outlines that the aim is to identify cycle routes which score 3 or above against each of the criteria (or could be improved to score 3 or above), ideally with no critical junctions. Improvements were therefore identified for poor scoring sections. In some cases, alternative routes were required to achieve higher quality.

The intention of the improvements is to meet the key design outcomes which are described in the LCWIP guidance.

Key design outcomes, DfT LCWIP guidance

<p>Coherent</p> 	<p>The network must be coherent; it must link all the places cyclists want to start and finish their journeys with a route quality that is consistent and easy to navigate. Abrupt changes in the level of provision for cyclists will mean that an otherwise serviceable route becomes disjointed and unusable by the majority of potential users.</p>
<p>Direct</p> 	<p>Routes for cyclists must provide direct and fast routes from origin to destination. In order to make cycling preferable to driving, routes for cyclists must be at least as direct – and preferably more direct – than that available for private motor vehicles. An indirect route for cyclists may result in some of them choosing the more direct, faster route, even if it is unsuitable for cycling.</p>
<p>Safe</p> 	<p>Cycle networks must not only improve cyclists' safety, but also their feeling of how safe the environment is. Consideration must be given to reducing the speeds of motor vehicles to acceptable levels, particularly when cyclists are expected to share the carriageway. The need for cyclists to come into close proximity and conflict with motor traffic must be removed, particularly at junctions, where the majority of crashes occur.</p>
<p>Comfortable</p> 	<p>Smooth surfaces, with minimal stopping and starting, without the need to ascend or descend steep gradients and which present few conflicts with other users creates comfortable conditions that are more conducive to cycling. The presence of high speed, high volume motor traffic affects both the safety and the comfort of the user.</p>
<p>Attractive</p> 	<p>Cyclists are more aware of the environment they are moving through than people in cars or other motor vehicles. Cycling is a pleasurable activity, in part because it involves such close contact with the surroundings. The attractiveness of the route itself will therefore affect whether users choose to cycle.</p>

An example of the RST output, for Route A, is given below. Full details are included in Appendix B. The proposed measures for each route are summarised in Table 5 and set out in more detail in Section 6.

Example RST assessment for proposed Route A

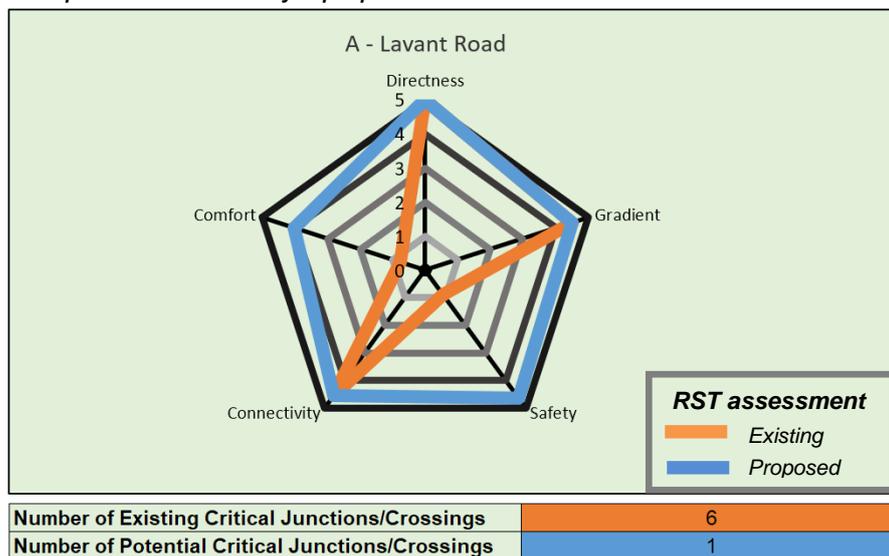


Table 5: Summary of measures on routes promoted by CDC

Route	Name	Summary of proposed measures
A	Lavant	New section of shared use path at northern end to connect with recently constructed link to Centurion Way Introduction of new protected cycle lanes along Lavant Road (using space redistributed from unused central hatching)
B	University	Cycle street proposals on College Lane and local junction improvements on the Broadway
E	Vinnetrow	New protected facilities for cycling and upgrades to existing facilities where necessary
F	North Mundham	Removal of through traffic, filtered permeability & improvements in Whyke and by the Free School Improved surface on path to North Mundham
G (north)	Chichester Canal	Improved surfacing and access between canal towpath and A27 Better links at Basin Road
H	Stockbridge	Protected cycle lanes (replacing existing shared use path) with continuous footways at side roads (using space redistributed from unused central hatching) Upgrade of Stockbridge Road/Terminus Road junction to incorporate proposed cycle tracks/lanes with cycle priority facilities on all approaches and pedestrian crossings on all arms
K	Westgate	Major improvements to Orchard Street/Westgate junction Cycle street, cycle lanes/tracks and/or filtered permeability between Orchard Street and Centurion Way
N	St Pancras	Protected cycle lanes on St. Pancras Road with link to hospital
Q	College	Improved crossing of Swieqi Road (Chichester College access road) to maintain cycle and pedestrian priority Improved links at Chichester station

5. Walking assessment & proposals

5.1 Introduction

As noted above, the DfT has set out guidance on how to assess infrastructure for walking using the 'Walking Route Audit Tool' (WRAT). Three areas were identified as being the priority for walking assessments:

- Core Walking Zone
- Northern walking route
- Western walking route

The highway network (including all pavements) was first divided into links and areas for more detailed auditing, using a desk-based approach. Each link or area began and ended where the characteristics of the pedestrian environment changed significantly or were interrupted by a major junction.

Site visits and detailed surveys were then carried out for all of these. The links and areas were assessed using the WRAT process (see Appendix C for the full scoring criteria from the WRAT guidance). This looks at five core categories (divided into 20 sub-categories):

- Attractiveness
- Comfort
- Directness
- Safety
- Coherence

Each of the subcategories was scored on a three point scale:

- 0 - Poor provision
- 1 - Adequate but should be improved if possible
- 2 - Good quality provision

The maximum score possible is 40. The WRAT guidance recommends that any item with a score under 70% (28 out of 40) is considered to be poor. While the guidance does not differentiate between items scoring over 70%, these have been divided into two groups for this LCWIP: Adequate (70%-85%) and Good (over 85%). This will assist development of measures to improve walking by allowing interventions to be prioritised

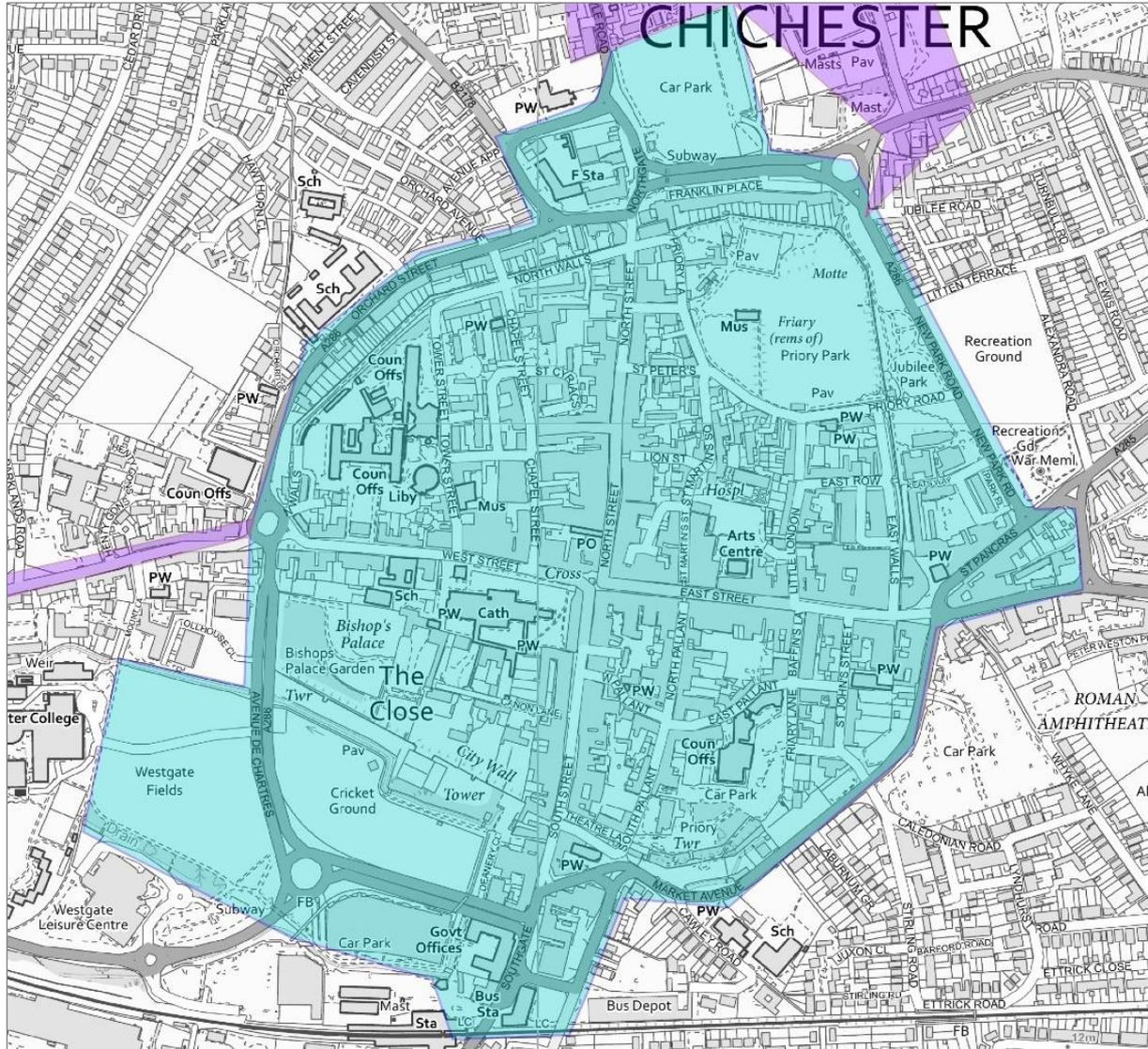
Example of poor provision (crossing - subcategory 12), South Street



5.2 Core Walking Zone (CWZ)

The CWZ is shown in Plan 20 and covers central Chichester. As noted above, the CWZ was defined initially on the basis of local geography, with a number of changes from feedback from stakeholders as well as observations gathered during the cycling assessment.

Plan 20: Core Walking Zone



Each link was scored and assessed as shown in Plan 21 below. The results of the assessment are shown in Table 6. Appendix C contains full details of the assessment.

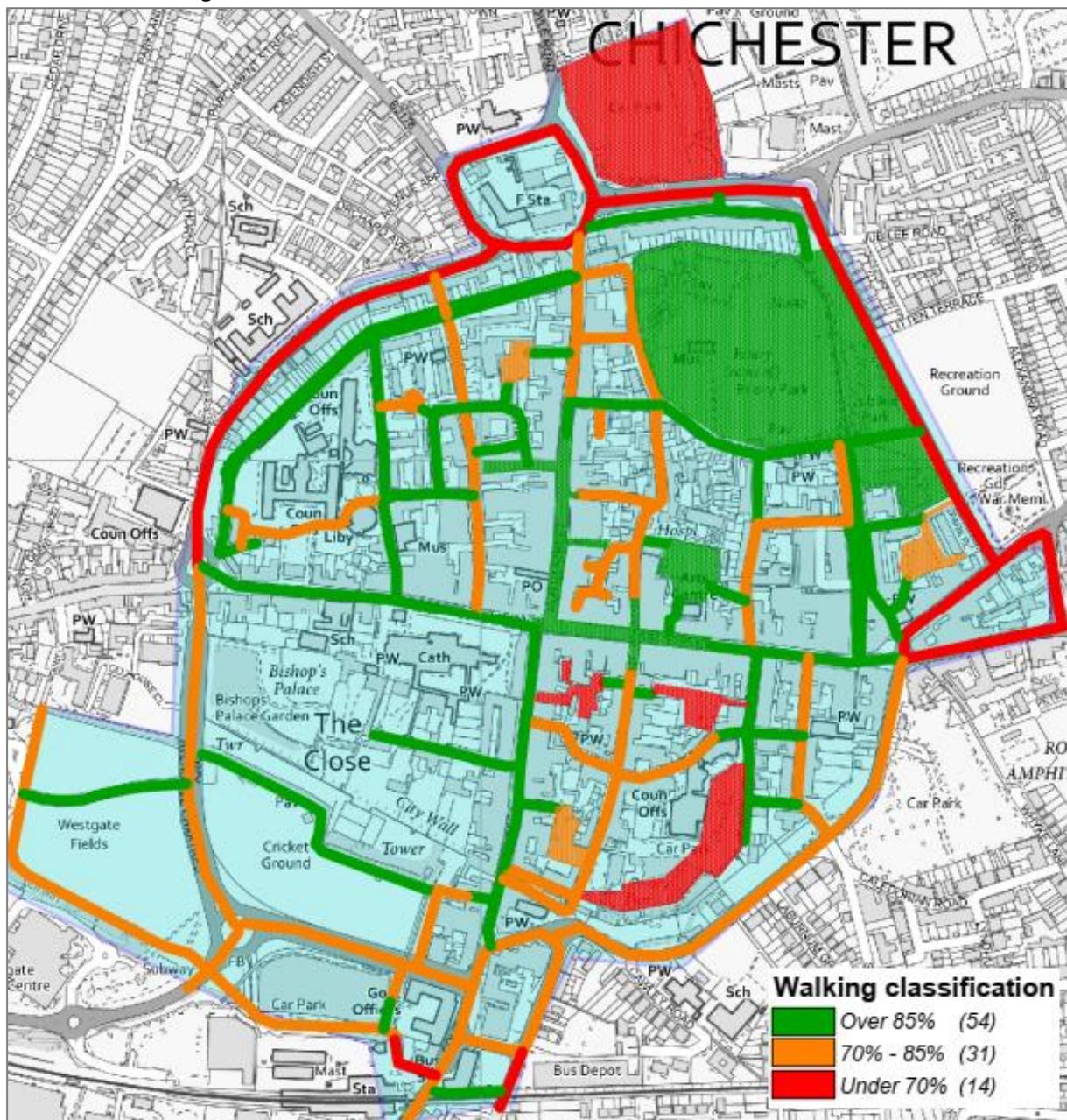
Table 6: Links in CWZ

Classification	No. of links/areas
Good	54
Adequate	31
Poor	14

Most of the links assessed were classified as good or adequate, and hence according to the DfT criteria did not need attention.

Plan 21 shows the links, colour coded using a Red-Amber-Green scale (an alternate version suitable for people with colour-blindness is provided in Appendix C).

Plan 21: Core Walking Zone assessment



The areas with poor provision for walking fall into two main categories:

- Footways on the main roads around the centre (including the Northgate and St. Pancras/Hornet gyratory systems)
- Walking links through car parks, including at Chichester station’s northern entrance

Despite the relatively good performance, there are some significant issues to be addressed to make walking in the core area of Chichester attractive and convenient for both residents and visitors. These are set out in more detail in Appendix C.

The density of car parks in and around the city centre makes a clear statement that people arriving by car are welcome. However, once drivers have parked the consistency of their experience on foot (including that of their passengers) was assessed as being generally

unsatisfactory, particularly if they are disabled or have other mobility issues. There is very little dedicated pedestrian provision within car parks and hence after leaving their cars, drivers and passengers are generally expected to share car park roadways with vehicles arriving or leaving. In particular Northgate, Baffins Lane and Cawley Priory/East Pallant car parks were all classified as Poor for people walking.

The poor performance in some areas should be considered in the light of the overall circumstances. Chichester is an historic city with historic streetscapes. Preserving these restricts some of the things which can be done to change existing infrastructure. In the historic core there are many places where narrow pavements result in a zero score, but where pavement widening is not a realistic option.

South Pallant – very narrow footway on one side only



Similarly, many links scored low on fear of crime where paths are not well overlooked, such as those through most parks or along the city walls. These will be fine during daylight hours but less so in darkness (two parks, Priory Park and Bishops Palace Gardens are locked at night, but the rest are open). However, it would not be reasonable to expect that this could or should be changed significantly as this is due to the nature of those locations.

Unavoidably narrow shared path at East Walls



5.3 Key walking routes

Two corridor routes were assessed for walking, heading north and west from the core area:

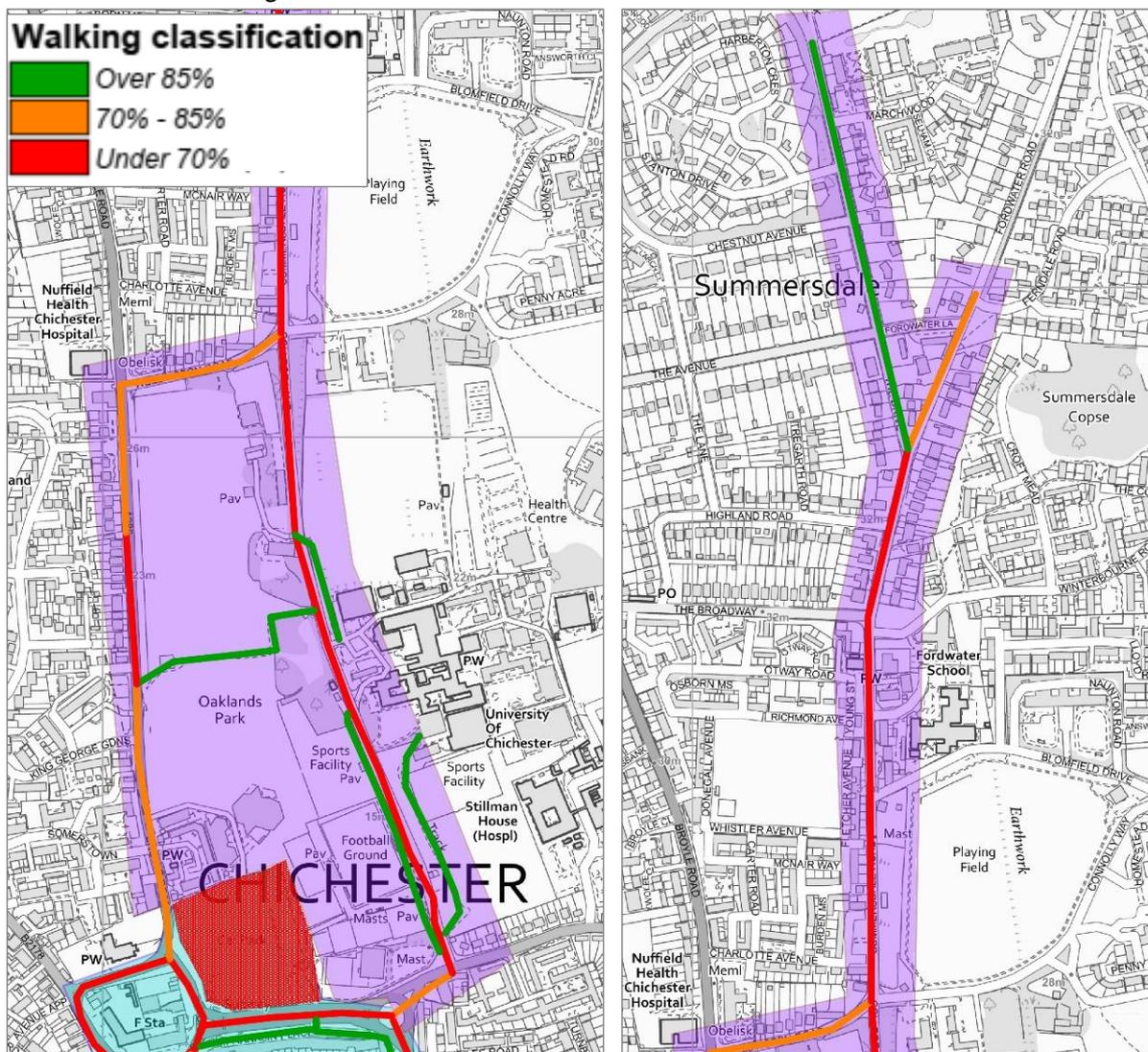
- **Northern route** – about 2km long, from the north of the CWZ at Northgate car park. It includes access to the University along College Lane and then further to the north to residential areas along Summersdale Road. A linking section along Broyle Road and Wellington Road completes this corridor. The path from College Lane across Oaklands Park was also surveyed. It is roughly aligned with proposed cycle route B.
- **Western route** – this runs for 1.7km, from the west of the CWZ along Westgate as far as Fishbourne Road West and the link to Fishbourne Palace. It follows the same alignment as cycle routes J and K.

Northern route

The Northern route was split into 14 separate sections, shown in Plan 22 below. Every section failed on at least one of the twenty assessment criteria.

The lowest performing link was College Lane between the University of Chichester and Oaklands Way, which failed on several issues. This is a key link to the University (and also potentially St Richards Hospital) and hence should be a priority for any future intervention.

Plan 22: Northern walking route assessment



Northern walking route – link between Northgate car park & Chichester Festival Theatre

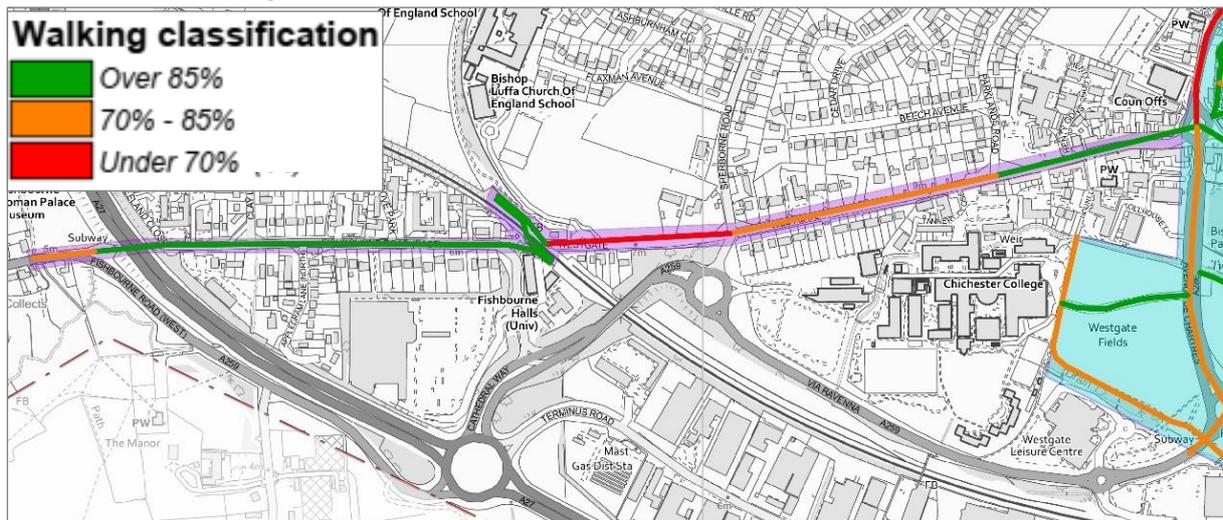


Western route

The western route was divided into eight sections, shown in Plan 23 below. Five of the sections failed on one or more criteria.

The key sections were on Westgate where there was poor crossing provision, inconsistent footway provision, and lack of consistent tactile paving.

Plan 23: Western walking route assessment



Western walking route – pinch points on footway of Westgate at Henty Gardens



6. Detailed proposals

6.1 General

A range of sources were used to develop detailed proposals for cycling and walking. As well as best practice examples from other locations in West Sussex, good practice elsewhere in the UK and indeed abroad was used.

6.1 Proposals for cycling

A variety of inputs was used to develop detailed proposals for the core area, plus the routes outside the core area being promoted by CDC. These included feedback from stakeholders and site visits.

Outside core area

Table 7 sets out the existing situation on key sections of routes outside the core area (see Plan 24 for references).

Table 7: Existing provision on routes

Route	Section	Ref	Existing cycling provision
A	Lavant Road (Hunters Race - Hunters Way)	1	Recently constructed link between Centurion Way and Lavant Road, but no provision on road itself
	Lavant Road / Broyle Road (Hunters Way - Churchside)	2	Advisory cycle lanes throughout, but with gaps in provision and narrow sections of <1.2m. Space used extensively for wide central hatching & waiting areas for vehicles turning right.
B	Broadway	3	No current facilities – quiet residential street
	College Lane	4	No current facilities – quiet street (similar feel to country lane despite being at edge of city centre). Southern end is main access to Chichester University
E	Vinnetrow Road	5	Narrow shared use path connecting with public footpath
	A27 bridge	6	Shared use footbridge
	Quarry Lane	7	Limited facilities (short narrow cycle link to bridge)
	Whyke Road (Quarry Lane - Cleveland Road)	8	Signed cycle route with no facilities
	Cleveland Road - Lyndhurst Road	9	Signed cycle route with no facilities but along quiet residential streets
	Caledonian Road	10	Signed cycle route with no facilities but along quiet residential street
	Whyke Road (railway to Bognor Road)	11	No facilities
F	Whyke Road (A27 to railway)	12	No facilities
	B2145 to North Mundham	13	Existing shared use path as far as Free School, track south-east to North Mundham
	Sheffield Park Road/Hay Road to Kingsham Road	14	Shared use path across park

Route	Section	Ref	Existing cycling provision
G	Chichester Canal (north)	15	Shared use towpath and path along A27, with steep link (obstructed by barriers)
H	Grosvenor Road	16	No facilities but quiet residential street
	Stockbridge Road (Grosvenor Road - A27)	17	No facilities apart from short shared use path on eastern footway
	A27 Bridge / King's Avenue	18	Cycling not allowed on bridge
	Stockbridge Road (King's Avenue - railway)	19	Narrow shared use path on western footway
K	Westgate	20	Quiet residential street with no cycle facilities apart from very narrow gaps at road narrowings
N	River Lavant open space	21	Shared use path through park
	Swanfield Drive East	22	New link as part of Lidl development
	St. Pancras Road / Westhampnett Road	23	Busy road with no cycle provision
	Cutten Way	24	No facilities but quiet residential street
Q	Chichester College Park	25	Shared use facilities from station through College Fields to Westgate

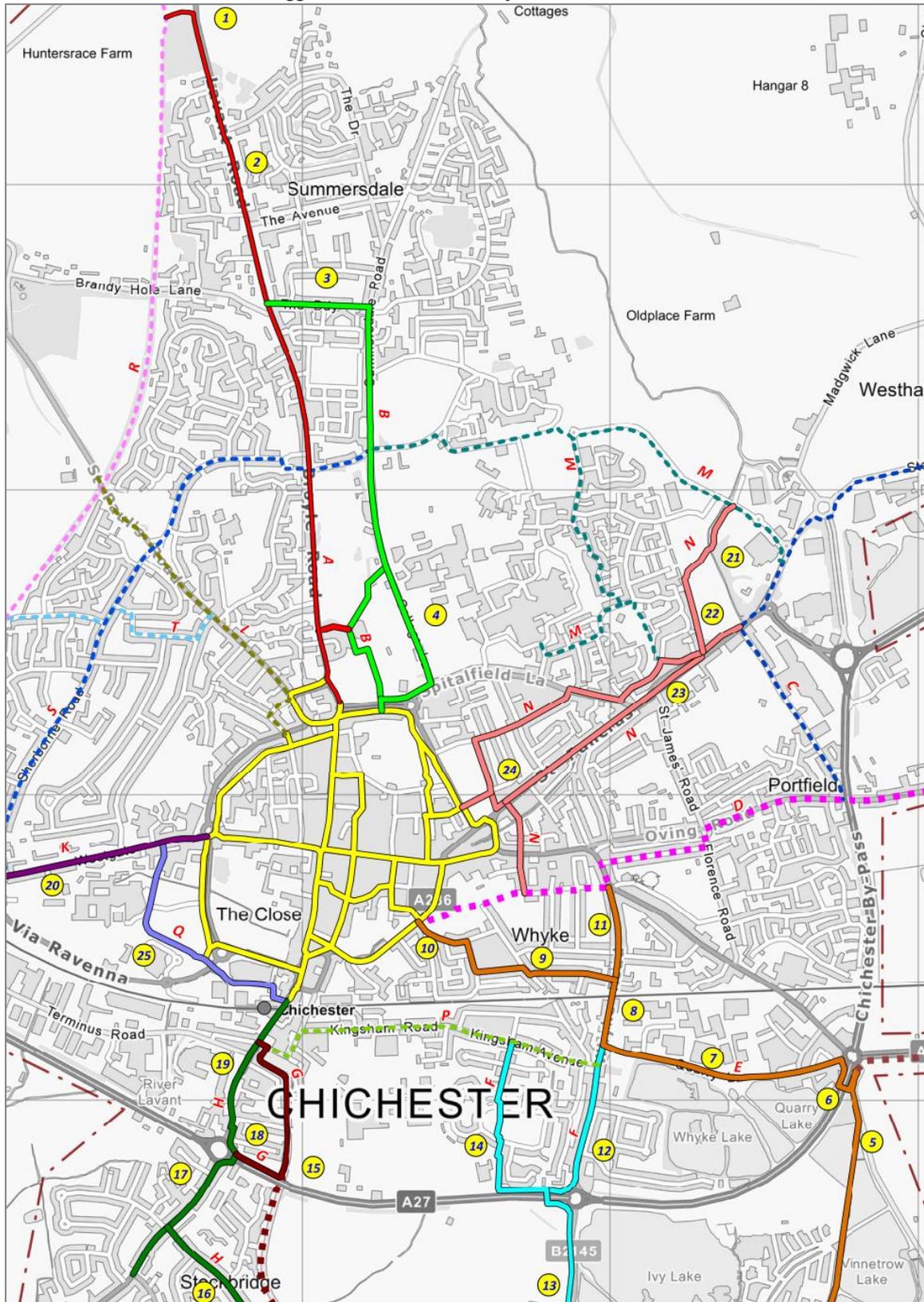
Broyle Road – existing narrow advisory cycle lanes (Route A)



Table 8 summarises the main suggested interventions on routes promoted by CDC, with locations shown in Plan 24.

Larger scale plans of each route with additional details on proposed interventions are included in Appendix B. Plan 25 shows an example of these for Route A.

Plan 24: Route network (main suggested interventions only)



Plan 25: Example of detailed plan of proposed interventions (Route A)

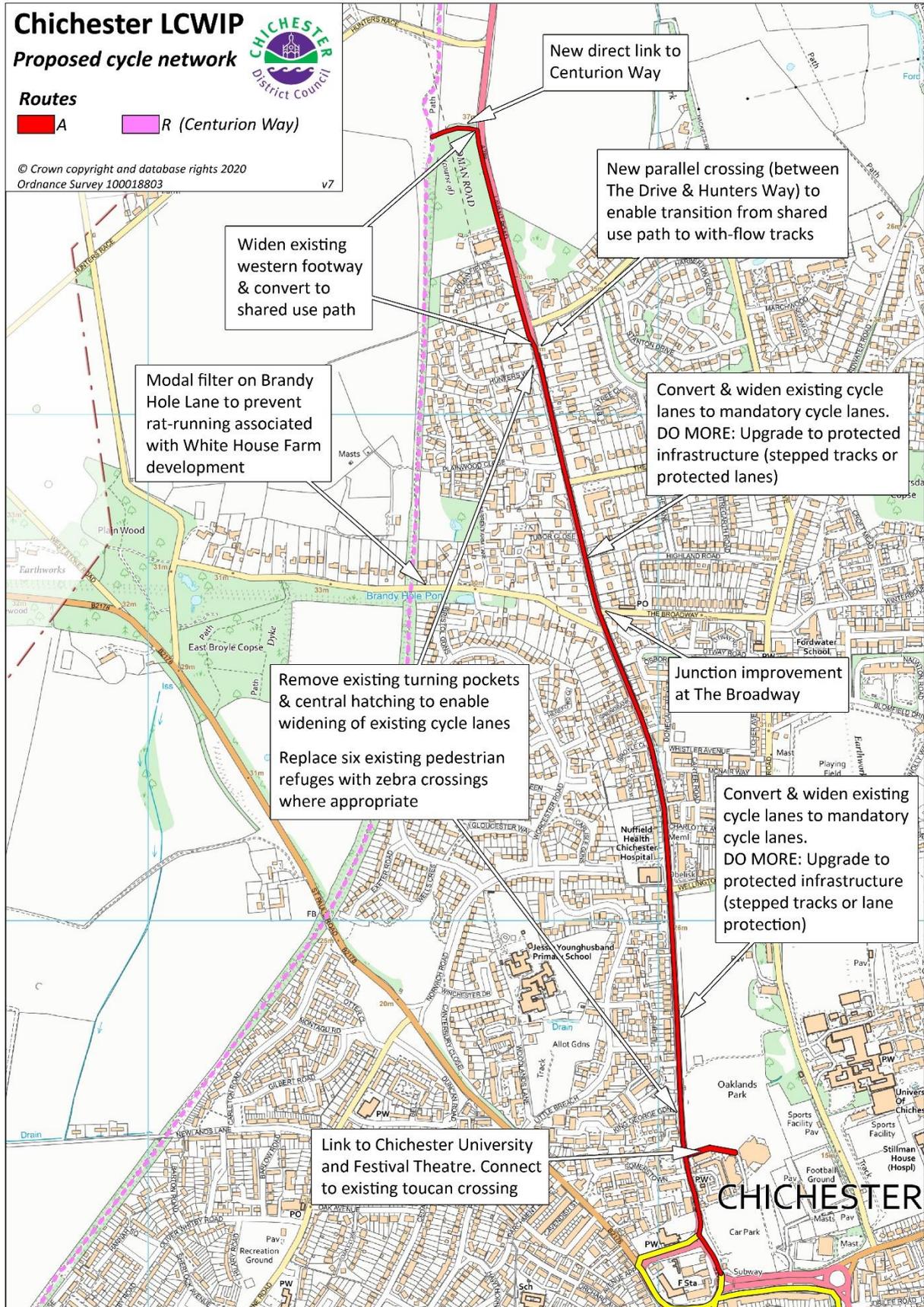


Table 8: Main interventions – “Do Minimum” & “Do More” (references are to Plan 23)

Route	Section	Ref	Do Minimum	Do More	Proposal used for RST & costing
A	Lavant Road (Hunters Race - Hunters Way)	1	Widen existing western footway & convert to shared use path. New parallel crossing (between The Drive & Hunters Way) to enable transition from shared use path to with-flow tracks	-	New shared use path with new parallel crossing (Do Minimum)
	Lavant Road / Broyle Road (Hunters Way - Churchside)	2	Convert & widen existing cycle lanes to mandatory cycle lanes, with removal of existing right turn waiting areas & central hatching to provide space. Replace existing pedestrian refuges with zebra crossings.	As 'Do Minimum' but upgrade to protected infrastructure (stepped tracks or wands). Redesign of junction at Brandy Lane/The Broadway.	With-flow protected cycle lanes on Lavant Road & junction upgrade at Brandy Lane/The Broadway (Do More)
B	Broadway	3	New crossing facility of Lavant Road at Brandy Hole Lane & proposed cycle facilities (link to Route A) Upgrade existing side-entry junctions to continuous footways. 20mph zone.	Investigate removal of through vehicle access as part of wider Summersdale Low Traffic Neighbourhood approach (would also benefit Routes M & S)	New crossing at Lavant Road plus continuous footways at side-entry junctions (Do Minimum)
	College Lane	4	Upgrade existing side-entry junctions to continuous footways. Introduce 'Cycle Street' south of Connolly Way. Modal filter on College Lane at junction of Spitalfield Lane (possibly with bus gate).	Investigate removal of through vehicle access as part of wider Low Traffic Neighbourhood approach (would also benefit Routes M & S). Alternatively, investigate new alignment for access to University from south	Route along College Lane with 'Cycle Street' Treatment (Do Minimum)
E	Vinnetrow Road	5	Improve access from public bridleway to shared use path – replace existing area with informal parking with footway (may need bollards). Remove existing verge/hatch markings & incorporate into widened shared use path	-	No RST impact - localised improvements only

Route	Section	Ref	Do Minimum	Do More	Proposal used for RST & costing
E	A27 bridge	6	Improve ramps & landing areas - Highways England (HE) responsibility	As part of future A27 plans, replace cycle bridge with at grade signalised crossing	No RST impact - localised improvements only
	Quarry Lane	7	Protected cycle lanes in both directions between Bognor Roundabout - Whyke Road, with priority at side roads (will require removal of parking)	-	With-flow protected cycle lanes (Do Minimum)
	Whyke Road (Quarry Lane - Cleveland Road)	8	Improve junction of Whyke Road/Quarry Lane. Remove parking & replace with cycle lanes	Upgrade to protected lane (stepped tracks or wands) & filter at Quarry Lane	With-flow protected cycle lanes (Do More)
	Cleveland Road - Lyndhurst Road	9	Tighten junctions with Whyke Lane to reduce speeds & change priority to east-west movements	-	No RST impact - localised improvements only
	Caledonian Road	10	Reduce width at junction with Market Avenue and introduce continuous footway Improve link to Toucan crossing & de-clutter footway to increase effective width	-	Slight junction improvements only - no RST impact
	Whyke Road (railway to Bognor Road)	11	-	Removal of through traffic on Whyke Road as in former HE proposal	Proposal would remove through traffic but no specific cycle measures
F	Whyke Road (A27 bypass junction to Quarry Lane)	12	-	Removal of through traffic on Whyke Road as in former HE proposal	Proposal would remove through traffic but no specific cycle measures
	North Mundham to B2145/A27	13	Improve surface of bridleway Introduce raised table at school delivery access De-clutter existing shared use path along B2145 & remove excessive markings	-	No RST impact - localised improvements only
	A27 to Kingsham Road	14	Fill in gap in existing crash barrier by A27 shared path De-clutter & re-surface section between A27 track & Sheffield Park Road Improve crossings of Hay Road (both sides of park) to improve access for	Modal filter at north end of Cherry Orchard Road	Do Minimum: No RST impact - localised improvements only

Route	Section	Ref	Do Minimum	Do More	Proposal used for RST & costing
			pedestrians & cyclists		
G	Chichester Canal towpath	15	Improved access between canal towpath & A27 cycle track, removing staggered barriers which do not conform to Equality Act Minor surface improvements on towpath. Extend existing crash barrier around A27 layby to protect shared use track	Flexipave or similar permeable all-weather surface on towpath	No RST impact - localised improvements only

Ramp with staggered barriers between Chichester Canal towpath and A27 cycle track



H	Grosvenor Road	16	Signed cycle route along low traffic cul-de-sac	Additional traffic calming measures	No RST impact - localised improvements only
	Stockbridge Road (Grosvenor Road - A27)	17	Introduce bi-directional track on eastern side of Stockbridge Road (protected by posts)	As 'Do Minimum' but upgrade to kerbed facility	Kerbed cycle track & upgrade of existing crossing on Stockbridge Road (Do More)
	A27 Bridge / King's Avenue	18	Allow cycling on bridge and improve links between Stockbridge Road (north and south) & bridge	-	As Do Minimum

Route	Section	Ref	Do Minimum	Do More	Proposal used for RST & costing
	Stockbridge Road (King's Avenue - Railway)	19	Replace existing shared use path with mandatory cycle lanes with continuous footways at side-entry junctions (space gained by removing existing right turn waiting area & central hatching) Minimal remodelling of Terminus Road junction	As per 'Do Minimum' but upgrade to protected lanes Upgrade Terminus Road junction to incorporate proposed cycle lanes, with cycle priority on all approaches	With-flow protected cycle lanes (Do More)
K	Westgate	20	Replace Orchard Street roundabout with cycling & walking friendly junction 'Cycle Street' between Orchard Street & Parklands Road, with raised table at Henty Gardens junction Two-way cycle track west of Parklands Road Replace roundabout at Sherborne Road junction with crossroads (E-W priority)	Modal filter west of Mount Street junction	Do More
N	River Lavant open space	21	Minor maintenance at existing provision	-	As Do Minimum
	Swanfield Drive East	22	Minor maintenance at existing provision	-	As Do Minimum
	St. Pancras Road / West-hampnett Road	23	Improve continuity of back-street route including facilities on Spitalfield Lane	New route with protected cycle lanes	Protected lanes (Do More)
	Cutten Way	24	New parallel crossing at St. Pancras Road junction	-	New crossing (Do Minimum)
Q	Westgate Fields / Chichester College	25	Improve cycle route across Chichester station car park Redesign crossing of Swieqi Road (College access) to give priority to cycling & walking	Widen cycle side of track & resurface in coloured bitmac to make it clearer	No RST impact - localised improvements only
SIGNING OF ALL ROUTES					

Table 9 sets out overall capital costs for these routes, plus signing of part (Do Minimum) or all (Do More) of the network.

Table 9: Proposed route costs - "Do Minimum" & "Do More"

Route	Name	Do Minimum (£m)	Do More (£m)
A	Lavant	0.75	2.0
B	University	0.17	0.87
E	Vinnetrow	1.19	1.32
F	North Mundham	0.3	0.51

G (north)	Chichester Canal	0.14	0.24
H	Stockbridge	0.82	1.89
K	Westgate	0.51	0.79
N	St Pancras	0.15	0.7
Q	College	0.08	0.15
Signing of whole network		0.15	0.3
GRAND TOTAL		4.26	8.77

Core area

Proposals have also been drawn up and costed for cycle provision in the core area, set out in Plan 26. The network in the core area has been split into 17 links which are described in Table 10, with proposed 'Do Minimum' and 'Do More' measures.

The interventions in the core area also include cycle direction signing. As the area will be the main destination for increased cycle trips, increased cycle parking provision should also be provided.

The overall estimated costs for the measures in the core area are £1.0m (Do Minimum) or £4.85m (Do More).

Plan 26: Route network in core area

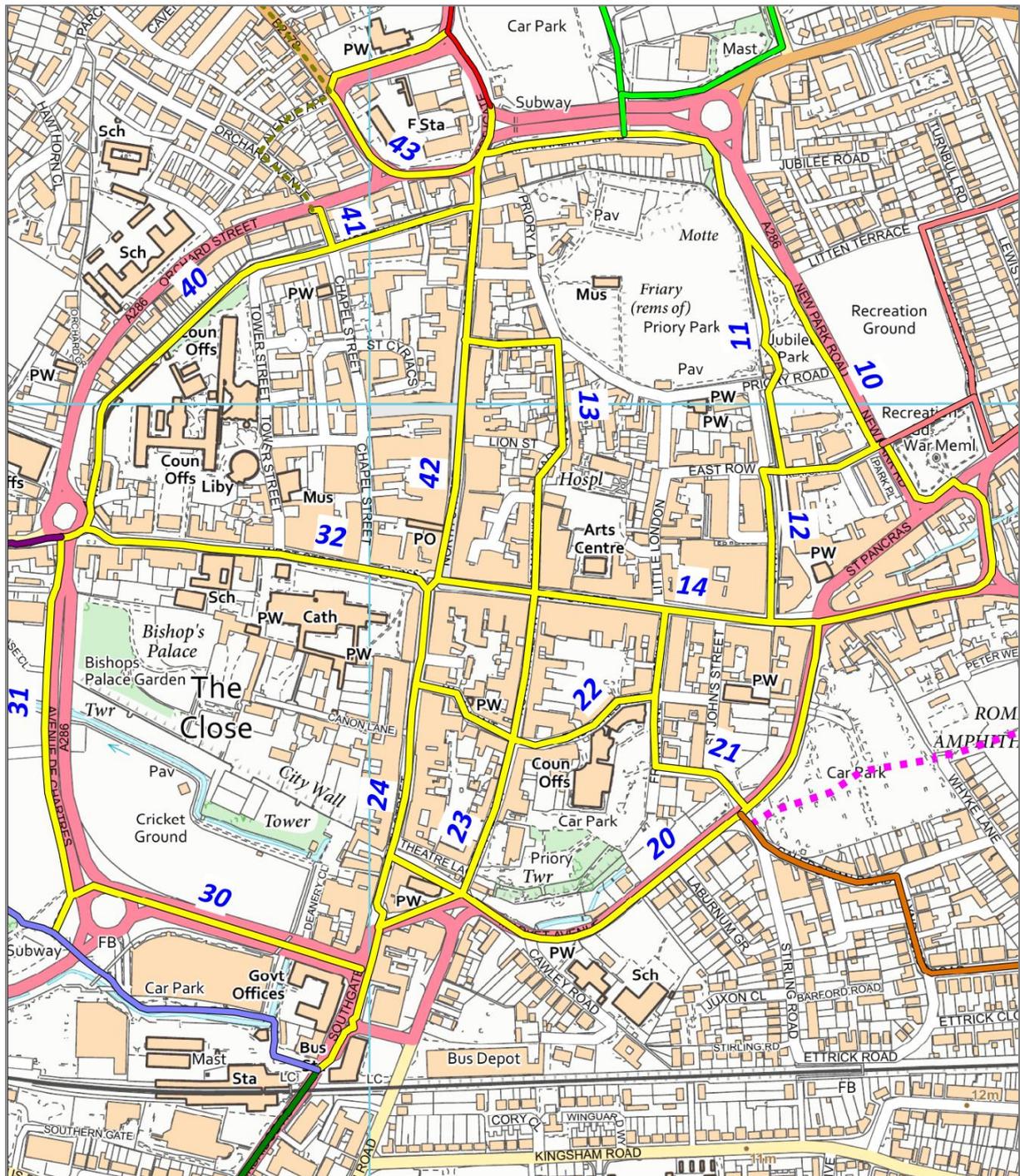


Table 10: Main interventions – core area

Link	Quad-rant	Name	Do Minimum	Do More	Length (km)
10	NE	Oaklands Way / New Park Road	New parallel route on shared footway/side streets	Protected lanes & crossing of Oaklands Way	0.83
11	NE	Jubilee Gardens	Widened path & crossing of Priory Road	Low Traffic Neighbourhood	0.26
12	NE	East Walls / Keats	Clearer link at Keats		0.28

		Way	Way		
13	NE	St Peters / St Martin's Square / St Martin's Street	Contraflow in St Peters Allow cycles to cross East Street without dismounting		0.36
14		East Street / The Hornet	Improved links at eastern end	Experimental removal of cycling restriction	0.56
20	SE	Market Avenue		Provide two-way cycle track	0.65
21	SE	St John's Street / Friary Lane	Improved links to Toucan crossing	Low Traffic Neighbourhood	0.18
22	SE	East Pallant / West Pallant	Continuous footway/ modal filter at west end of West Pallant		0.37
23	SE	North Pallant / South Pallant / Old Market Avenue	Allow cycles to cross East Street without dismounting Cycle street in Old Market Avenue		0.40
24		South Street / Southgate	Improved links at southern end	15mph speed limit for buses	0.53
30	SW	Avenue de Chartres (south)		Protected cycle lanes	0.31
31	SW	Avenue de Chartres (west)	Widen path, introduce separation between walking & cycling sides Replace Orchard Street roundabout with walking & cycling friendly junction	Protected cycle lanes	0.41
32		West Street	Widen cycle gaps	15mph speed limit for buses	0.38
40	NW	North Walls	Cycle street		0.57
41	NW	Chapel Street	Modal filter at walls		0.5
42		North Street / Northgate	Improved links at northern end	Experimental removal of cycling restriction	0.49
43	NW	Northgate gyratory		Complete redesign of Northgate gyratory	0.34
ALL	Cycle parking		Increased on-street parking	At least one cycle hub	

Costs

Table 11 shows the overall combined cost of the proposed cycle network measures.

It is important to note that the Do More estimate includes some very large-scale projects such as redesigning the Northgate gyratory. Clearly, projects such as these are not straightforward and would need to be developed over the full ten-year timescale of the

LCWIP. However, the benefits they would bring to Chichester which go far beyond the impact on cycling, as they would reduce the wider effects of motor traffic on the city.

Note the costs include works associated with currently proposed developments (e.g. at White House Farm) if they are part of routes promoted by CDC.

Table 11: Estimated costs – all cycle measures

Area	Do Minimum	Do More
Cycle network outside core area	£4.26m	£8.77m
Core area	£1.0m	£4.85m
TOTAL (CYCLING)	£5.26m	£13.62m

6.3 Proposals for walking

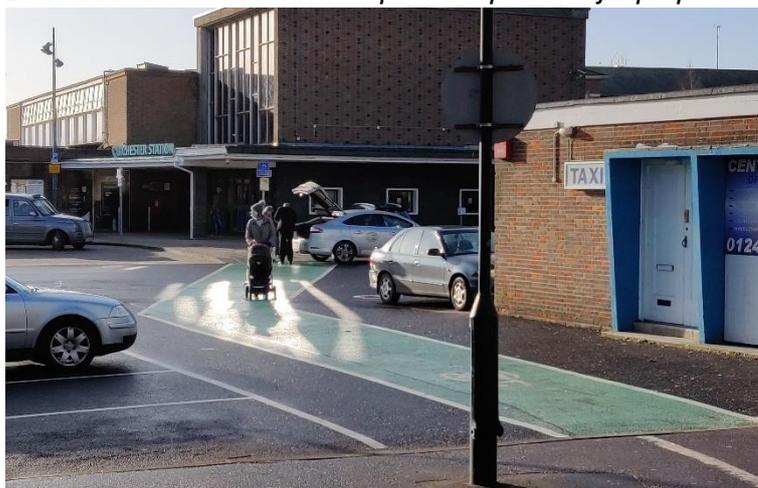
Developing specific recommendations for the core walking zone and key walking routes is more complex than for cycling, as there are a much larger number of smaller measures. Full details are therefore provided in Appendix C rather than in the main LCWIP.

The cost estimate in Table 12 is based on the range of measures set out in the Appendix. However, the estimate is not a simple sum of each proposed measure but is instead a global estimate based on the scale of interventions. Note that the estimate includes several proposals that would be delivered in conjunction with the proposed cycling measures.

Table 12: Estimated costs – all walking measures

Area	Do Minimum	Do More
Core Zone	£0.25m	£0.45m
Key route (west)	£0.1m	£0.2m
Key route (north)	£0.15m	£0.25m
TOTAL (WALKING)	£0.5m	£0.9m

Link across Chichester station car park – no provision for people walking



6.4 Overall estimate of costs

Table 13 shows the overall estimate, with an additional 15% for contingency/optimism bias. Note that these costs exclude project management, planning issues, detailed design or other costs (including land acquisition if required).

Based on the table of recommendations we have arrived at the outline cost of £6.7million ("Do Minimum") or £16.7 ("Do More) for the LCWIP as a whole.

Table 13: Estimated costs – all measures

Focus	Do Minimum	Do More
Cycling network	£6.05m	£15.66m
Walking measures	£0.65m	£1.04m
TOTAL	£6.7m	£16.7m

As noted above, some measures proposed for walking and cycling will overlap (e.g. the southern end of College Lane). Hence it is likely that the overall costs would be lower when areas are examined in detail rather than from the perspective of walking or cycling alone.

Example of low cost improvement – removal of unnecessary "END" marking at Mount Lane



Example of high cost improvement – replacement of Northgate gyratory



7. Conclusions

7.1 General

The general assessment of the demand for both cycling and walking in Chichester shows the potential to further develop the existing levels, which are the highest in West Sussex.

However, developing proposals which will be of a sufficient quality to have an impact will require significant investment, both in terms of cost and resources. The importance of political leadership to take the proposals forward must also not be underestimated.

7.2 Funding

It must be stressed that funding for these schemes is not expected to be provided by CDC and WSCC alone. As is generally the case with projects of this type, a variety of funding sources would be needed, including external grants, other third parties and contributions from developers. This includes Emergency Active Travel Fund (EATF) funding from central government, as well as any future support announced as part of the revised CWIS expected to be announced later in 2020.

It is also important to note that the LCWIP is a 10 year programme. The average cost per year of around £0.7m for the Do Minimum measures would be a significant increase on current levels of expenditure, and would mean around £18/year for each person in the LCWIP area. However, this matches the level generally regarded as the minimum needed to have a significant impact on cycling levels, including by the All Party Parliamentary Cycling Group report "Get Britain Cycling" in 2013.

Expenditure to deliver Do More measures would result in an annual cost of £1.7m. While this equates to over £40/person each year, this sum would deliver a much higher quality of interventions. It would lead to a higher level of shift to cycling in particular, as well as benefitting walking. There would also be a significant positive impact on the city's general environment which would support economic development.

7.3 Impact of COVID-19 pandemic

The impact of the pandemic has been unprecedented. As well as the tragic loss of life and the wider effect on health, there have been major impacts on the economy and travel. One of these has been a rise in cycling and walking during the Lockdown period. This is at risk as motor traffic rises, in part due to the loss of capacity on public transport.

The government launched the EATF in May 2020 to help local authorities deliver significant measures to provide infrastructure for walking and cycling, helping to address the impact of COVID-19. A letter from the Department for Transport set out requirement for councils to demonstrate "*swift and meaningful plans to reallocate roadspace to cyclists and pedestrians, including on strategic corridors.*" Funding is to be provided in two tranches, with Tranche 1 being 20% of the overall amount

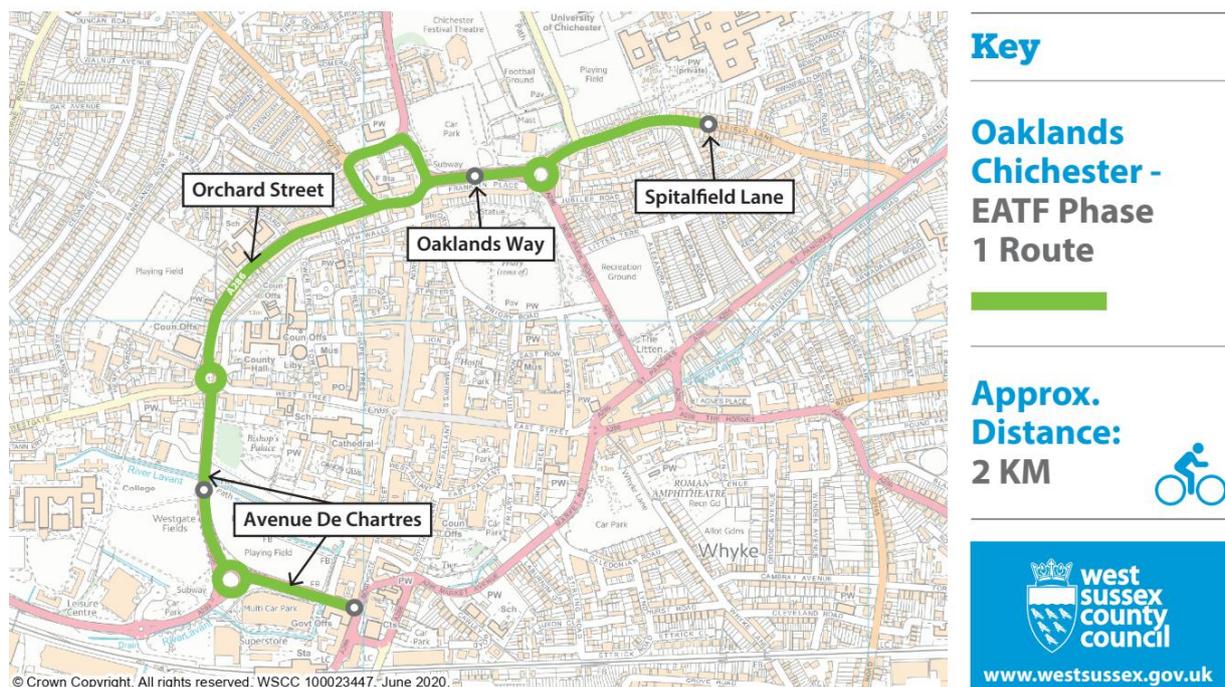
In June 2020 WSCC was allocated a sum of £781,000 for Tranche 1 of the EATF. This has been committed to deliver 21km of new and improved cycle infrastructure across the county. In Chichester, the proposed interventions published by WSCC in June 2020 will focus on the A286 ring-road (see Plan 27). The measures involve reallocating road space for cycling by converting one lane of the dual carriageway in each direction to form a cycle lane, with light protection. Other sections of the route will have a range of treatments.

The 2km route will link to the central retail area and other major employment sites, such as the University of Chichester and St Richard’s Hospital. There may be potential for part or all of the route to become permanent.

The works will be supported by a 20mph speed limit and create links to existing cycle facilities. Alternatives will be provided to cycle paths where physical distancing may be difficult to maintain.

Plan 27: WSCC EATF Phase 1 route – Chichester station to Spitalfield Lane (from WSCC press release, June 2020)

**Railway Station to Spitalfield Lane Chichester
EMERGENCY ACTIVE TRAVEL FUND (EATF) - PHASE 1 ROUTE**



7.4 Next steps

Stage 5 of the LCWIP covers prioritisation of proposed measures. Initially it was intended for this to be included as part of this LCWIP. However, it is now being delivered by WSCC in conjunction with the county-wide, South Downs National Park and other area LCWIPs.

WSCC is exploring the possibility of further support to allow a consistent approach to all LCWIPs. This will include application of a Multi-Criteria Assessment Framework so that proposals in different areas (and LCWIPs) can be assessed on the same basis. This will include use of the DfT’s Active Mode Appraisal Tool (AMAT) which will further allow a degree of comparison and consistency with LCWIP projects elsewhere in England.

The final Stage 6 of the LCWIP is integration and application. This will be developed by CDC following the adoption of the current document. It will include consideration of how the LCWIP proposals can be incorporated into the council’s Infrastructure Business Plan (IBP).

The IBP prioritises the infrastructure needed to support growth identified in the CDC Local Plan via a five year rolling programme for its delivery, together with possible funding broken down by source (including the CIL Spending Plan). The latest IBP was approved in March 2020.

Appendix A. Glossary

1. Acronyms

AMAT	Active Mode Appraisal Tool
CDC	Chichester District Council
CIL	Community Infrastructure Levy
CWIS	Cycling & Walking Investment Strategy
CWZ	Core Walking Zone
DfT	Department for Transport
IBP	Infrastructure Business Plan
KSI	Killed or Seriously Injured
LCWIP	Local Cycling & Walking Infrastructure Plan
LSOA	Lower Super Output Area
PCT	Propensity to Cycle Tool
RST	Route Selection Tool
SDNPA	South Downs National Park Authority
TI	Transport Initiatives
WRAT	Walking Route Assessment Tool
WSSC	West Sussex County Council

2. Technical terms

Measure & description	Photo ref
<p>Bus gate</p> <p>A modal filter (see below) where only buses, cycles and pedestrians (and possibly taxis) are allowed to pass. The most effective bus gates use automated rising/falling bollards which lower to allow buses to pass (as in Graylingwell Drive) but can also be enforced by camera. Sign-only restrictions may be ignored.</p>	
<p>Continuous footway</p> <p>A way of providing priority for pedestrians over turning vehicles at side roads by continuing the footway surface across the junction, giving strong visual priority to people walking. A 'continuous cycleway' can be provided in a similar way for a cycle lane or track.</p>	

Contraflow cycling

Where cycles are allowed to travel in both directions on streets that are one-way for motor traffic. It can be implemented using lane markings and signing (with or without some form of physical protection), or by using signing only at the entrance to the contraflow section.



Cycle bypass

Physical separation for cycles enabling them to avoid a restriction for other road users such as traffic signals and chicanes



Cycle lane

Advisory – dashed white line marking out a lane intended for cycling. Motor vehicles should not enter the lane unless it is unavoidable but are not legally prohibited from doing so. Advisory lanes offer little benefit to people cycling.



Mandatory – solid white line marking out a lane for the exclusive use of cycles. Motor vehicles are legally prohibited from driving in the lane. Mandatory lanes offer some benefit to people cycling but are not protected from traffic encroachment.



Cycle parking

Cycle parking ranges from hoops ('Sheffield stands') to secure on street parking ('bike hangars'), lockers and compounds. Cycle parking should be fit-for-purpose, secure and well located, and allow all types of cycles to be parked.

**Cycle street**

Low traffic street where motor vehicles are allowed but cycling has priority

**Floating bus stop / bus stop bypass**

Cycle track running behind a bus stop so that cycles do not have to interact with buses. May be at a lower level than the stop and footway, or at the same level. Some have zebra crossings for bus passengers to cross the cycle track.

**Light protection**

Intermittently placed objects (e.g. bollards, posts, planters or sections of low kerb) to separate and protect people cycling from motor traffic. Usually used in conjunction with a mandatory cycle lane.



<p>Low Traffic Neighbourhood</p> <p>An area of streets (usually mostly residential) where <u>through</u> motor traffic is removed or reduced and calmed to provide a better, more liveable neighbourhood to support walking, cycling, play and community use. Access by motor vehicles is still possible but usually from one direction only.</p>	
<p>Modal filter (road closure)</p> <p>A permanent or part-time road closure for motor traffic with access for pedestrians and cycles. It may be enforced by physical measures or signing. Camera enforcement can be used but only London councils have legal powers to do this, though a recent ministerial announcement indicates this might change.</p>	
<p>Parallel crossing</p> <p>A crossing similar to a zebra crossing, which can be used by cycles as well as pedestrians (may be on a raised table)</p>	
<p>Protected cycle track</p> <p>A path for cycling physically separated from areas used by motor vehicles and pedestrians. It may be next to, or completely away from the carriageway.</p>	

<p>Raised table</p> <p>A flat raised section of the carriageway, used to slow traffic and make it easier for pedestrians to cross</p>	
<p>School Street</p> <p>Section of street outside a school with restricted access during school pick-up and drop-off times, enforced by physical measures or signs. Camera enforcement can be used but only London councils have legal powers to do this, though a recent ministerial announcement indicates this might change.</p>	
<p>Separation</p> <p>A physical feature separating space used by cycles and pedestrians on a traffic-free path, such as a kerb, white line or surfacing in different colours or materials</p>	
<p>Shared use path</p> <p>A path which is shared by pedestrians and cycles but where motor traffic is not permitted. It can include footways alongside carriageways as well as routes completely away from roads, like in parks. Shared paths are not recommended where there is heavy use by pedestrians.</p>	
<p>Toucan crossing</p> <p>A signal controlled crossing that can be used by both pedestrians and cycles (may be on a raised table)</p>	

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Chichester City LCWIP

Appendix C

Walking audit – Core Walking Zone & key routes



June 2020



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1. Introduction

Technical guidance¹ on the development of a Local Cycling and Walking Infrastructure Plan (LCWIP) was published by DfT in April 2017. This sets out an approach to network planning for walking which includes the identification of a 'Core Walking Zone' in addition to longer key walking routes. As part of the scoping of the LCWIP the area forming the Core Walking Zone was identified as the centre of Chichester. This was assessed in November 2019. In February 2020 a further survey was undertaken of two corridor routes running north and west from the core area. The core walking zone and the starting points of the key walking routes are shown in Plan 1 below.

Plan 1. Core Walking Zone & key walking routes



¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/607016/cycling-walking-infrastructure-technical-guidance.pdf

2. Walking audit process

An initial survey was carried out of the Core Walking Zone using GIS. The road and path network was divided into links and areas for more detailed auditing. Each link or area began and ended where the characteristics of the pedestrian environment changed significantly or were interrupted by a major junction.

Once determined, the links and areas were assessed using the LCWIP Walking Route Assessment Tool (WRAT). This tool looks at five core categories that are further split into twenty subcategories.

WRAT categories

Core category	Subcategory	Issues to be assessed
Attractiveness	1. Maintenance	Maintenance of footways, removal of vegetation, rubbish and care of street furniture
	2. Fear of crime	Evidence of vandalism and how well the area is overlooked & observed
	3. Traffic noise & pollution	Level of traffic noise and pollution affecting the area
	4. Attractiveness - other	Any other issues such as lighting, excessive guardrails & bollards, refuse sacks etc.
Comfort	5. Condition	How level the footways are and the quality of the surface
	6. Footway width	Generally, over 2m is considered good and less than 1.5m is poor
	7. Crossing width	The width of staggered crossings, specifically the width of refuges, islands and reservations
	8. Footway parking	How the footway is obstructed by footway parking
	9. Gradient	Are there significant gradients on the footway?
	10. Comfort - other	Other obstructions such as access gates opening onto footway, bus shelters, bins and other barriers
Directness	11. Footway provision	How footways provide for pedestrian desire lines
	12. Location of crossings	How pedestrian crossings are located in relation to pedestrian desire lines
	13. Gaps in traffic	Can pedestrians crossing away from crossings find adequate gaps in traffic
	14. Crossing delay impact	How staggered crossings and waiting times affect journey times
	15. Green man time	Length of green man time
	16. Directness - other	Are bus stops etc. accommodated? Is the layout confusing leading to potential severance?
Safety	17. Traffic volume	How much traffic is there and how close is it to pedestrians?
	18. Traffic speed	How fast the traffic is moving and its proximity to pedestrians
	19. Visibility	How well pedestrians can see and be seen
Coherence	20. Dropped kerbs and tactile paving	Are dropped kerbs and tactile paving correct and where they should be?

Each of the twenty subcategories were scored on a three point scale

- *Poor provision - score 0*
- *Adequate but should be improved if possible - score 1*
- *Good quality provision - score 2*

The full descriptions of the scoring criteria as set out in the DfT guidance are at the end of this Appendix (see www.gov.uk/government/uploads/system/uploads/attachment_data/file/602531/walking-route-audit-tool.xlsx).

The maximum score possible is 40. The LCWIP guidance recommends that any item with a score under 70% (28 out of 40) is considered to be poor.

The DfT guidance does not differentiate between items scoring over 70%. However, to assist development of measures to improve walking we have divided these into two groups: Adequate (70%-85%) and Good (over 85%).

Example of Poor crossing provision (subcategory 12), South Street

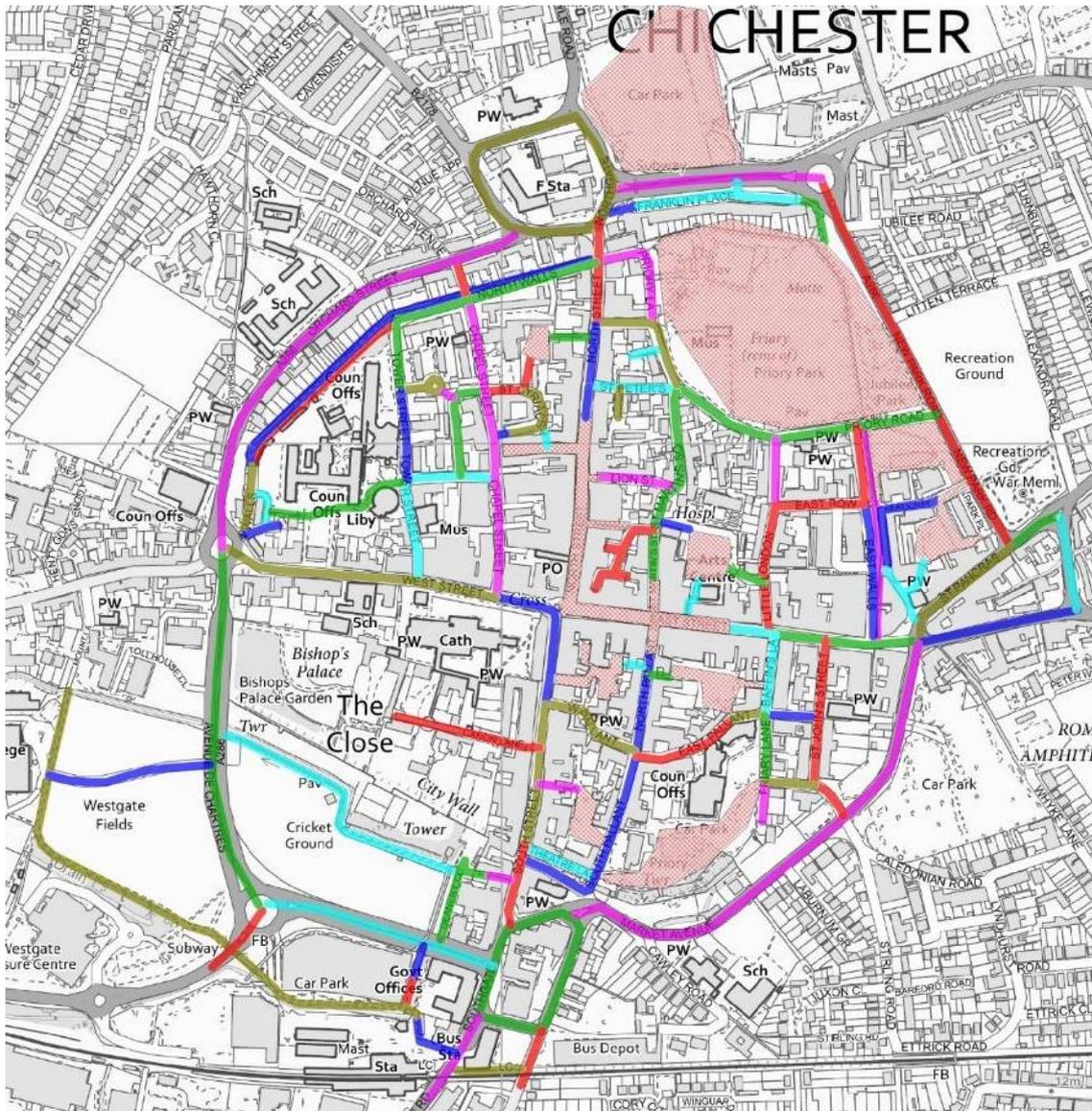


3. Core Walking Zone - detailed audit

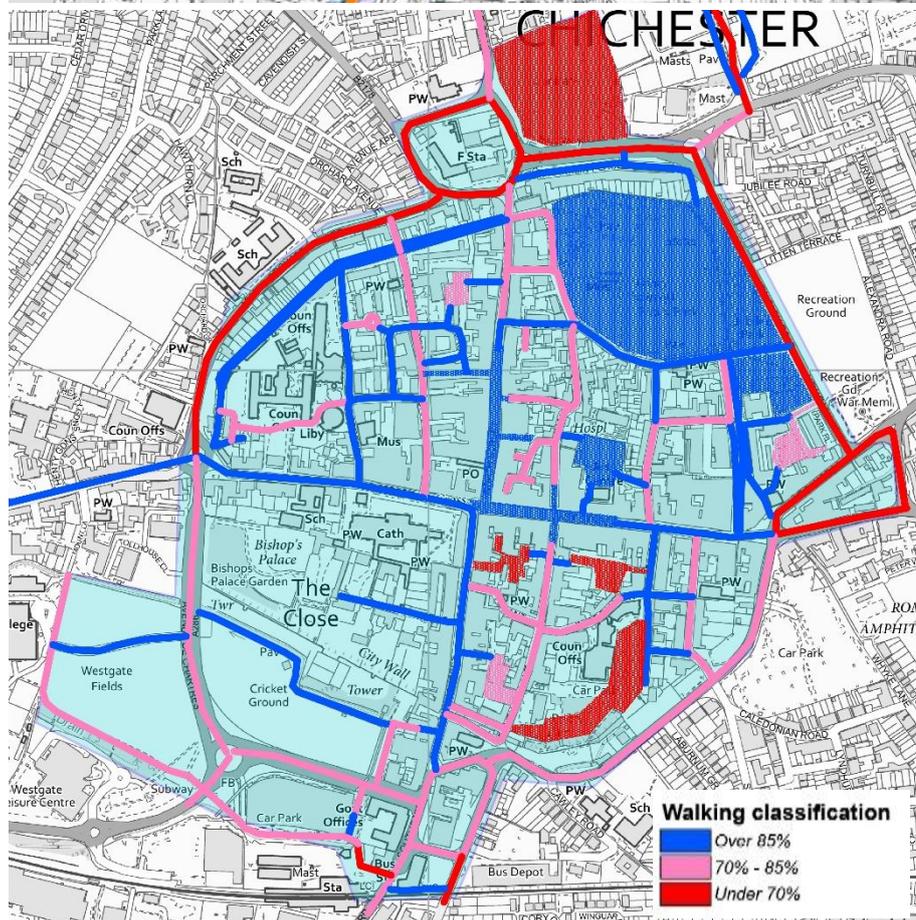
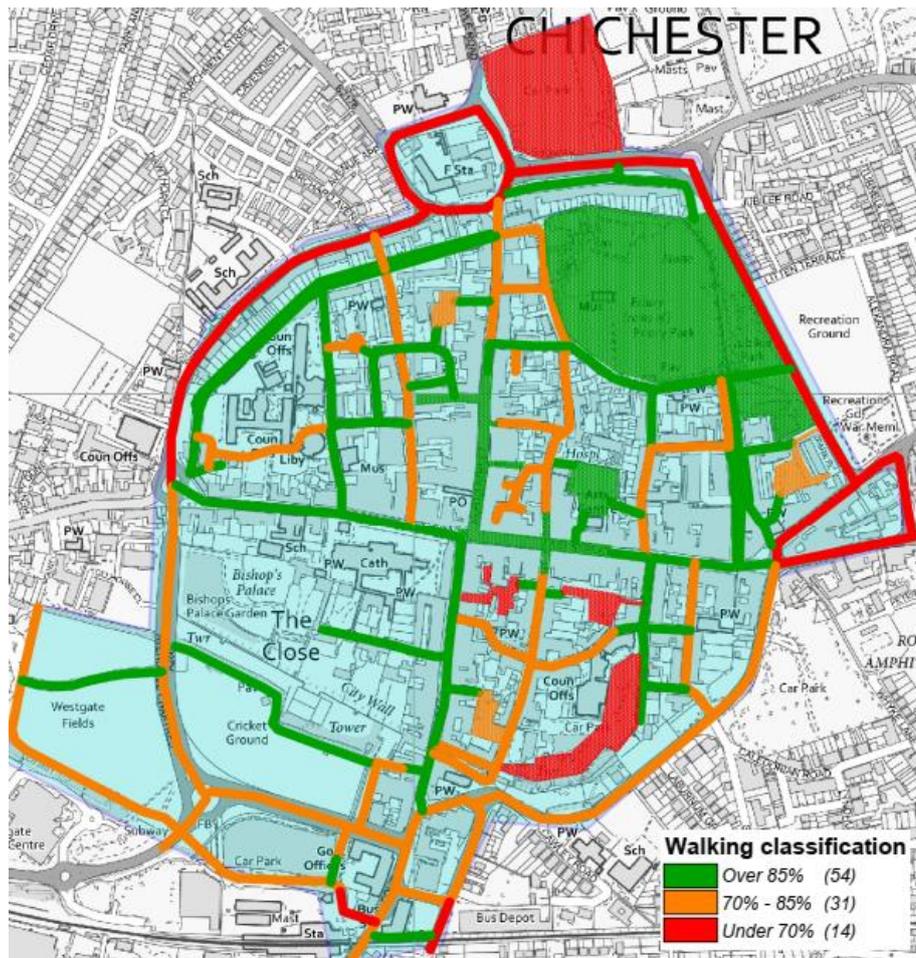
The initial survey divided the audit area into 99 distinct items comprising 88 links and 11 areas (mostly car parks). These are shown in Plan 2 below (note different colours used only to indicate separate sections).

Plan 3 shows links and areas classified as Good (green), Adequate (amber) or Poor (Red) according to the percentage score. The smaller plan uses a reverse heat map version to allow for colour blindness.

Plan 2. Audit links and areas



Plan 3. Audit links and areas classified by % score (with alternate version for colour blindness)



Overall, 54 links or areas were classified as Good, with 31 Adequate (i.e. improvements would be of some benefit) and 14 Poor. The latter are listed below.

Table 1. Links and areas classified as Poor

Ref.	Street / area	Score (max 40)	%	Comments
CW07	Station Approach	27	68%	Very poor for pedestrians accessing shared path away from the station. Pedestrian comfort sacrificed to accommodate disabled parking bays
CW81	Cooper Street car park	27	68%	Route through car park with no pedestrian provision. Minimal footpath on access road
CW04	Basin Road	26	65%	Very poor crossing at north end where pavement on west side peters out short of crossing point
CW19	The Hornet	26	65%	Narrow pavements. One build-out has dropped kerb but nothing opposite. Very poor
CW20	Needlemakers	26	65%	Unnecessarily wide with lots of fast traffic and inadequate crossings.
CW21	St Pancras	26	65%	Crossing at east end is poor for visibility and the whole thing is unsatisfactory
CW77	Cawley Priory & East Pallant car parks	26	65%	Car parks with no serious pedestrian provision
CW84	Baffins Lane car park	26	65%	No pedestrian provision through car park. Very poor provision on accesses. Narrowing, missing drops etc.
CW23	Northgate car park	25	63%	Another car park with no pedestrian provision and a clear route intended through it. Pedestrians just have to mix it
CW16	Oaklands Way	24	60%	No tactile and central reservation means no crossings. Narrow footpath overgrown in parts
CW10	Orchard Street	23	58%	Very narrow pavements at points. No tactile at side roads and accesses. Ponding at some. Poor pavement surface and narrow island at southern end by roundabout
CW24	Northgate gyratory	23	58%	The problems with this gyratory are well documented but the pedestrian provision at all arms is very poor and some of the pavements are very narrow
CW17	New Park Road	22	55%	Pavement not continuous on both sides and at points narrow. Insufficient crossings badly placed and some missing tactile
CW18	St Pancras	22	55%	Intimidating environment for pedestrians. Narrow pavements, poor quality of dropped kerbs, inadequate crossings and lots of speeding traffic on what feels like a one-way race track

There are some mitigating circumstances which need to be noted before more detailed analysis of the findings is discussed. Chichester is an historic city with historic streetscapes, the preservation of which restricts some of the things which can be done to change existing infrastructure. In the historic core there are many places where narrow pavements result in a score of zero, but where pavement widening is not a realistic option.

Similarly, many links scored low on fear of crime where paths are not well overlooked, such as those through parks or along the city walls. These will be fine during daylight hours but less so in darkness. However, it would not be reasonable to expect that this could or should be changed significantly as this is due to the nature of those locations.

Despite the relatively good performance, there are some significant issues to be addressed to make walking in the core area of Chichester attractive and convenient for both residents and visitors.

The density of car parks in and around the city centre makes a clear statement that people arriving by car are welcome. However, once drivers have parked the consistency of their experience on foot (including that of their passengers) is likely be much less satisfactory, particularly if they are less able bodied. Apart from one section of a single car park there is no dedicated pedestrian provision within car parks and hence after leaving their cars, drivers and passengers are expected to share car park roadways with vehicles arriving or leaving. In particular, Northgate, Baffins Lane and Cawley Priory/East Pallant car parks were all classified as Poor for people walking.

While the narrowness, or in some cases absence, of pavements is not unusual in an historic streetscape, what is less acceptable is the absence of adequate dropped kerbs to facilitate crossing where and when pavements cease. The almost total absence of tactile paving at the majority of crossings is also very poor. We would expect to see tactile paving as standard at any major junction or key crossing point (this can be provided in a way which is in keeping with conservation areas). This is not the case in Chichester, with the Northgate gyratory being an example of where a major series of junctions lack any tactile paving. Indeed, the overall walking and crossing provision at the gyratory is very poor.

As part of the cycling section of the LCWIP we carried out a partial Cycle Skills Network Audit (CSNA) of Chichester. This identified roads where cyclists or pedestrians would require skills greater than those achieved at Bikeability Level 2 (as taught at the end of primary school) to ride along or cross them in consistent safety.

The formal crossings on these roads were audited against the same criteria and the outcome of this audit are shown in Plan 4 below.

The CSNA shows that virtually all the roads in the city centre inside the inner ring road are were classified Level 2. The overall traffic safety issues in the city centre are satisfactory within the actual streets. However, the CSNA did not audit the car parks, just their access roads, so the lack of pedestrian provision within these is a genuine safety concern. Nearly as important is how the overall pedestrian experience might detract from enjoyment of the attraction of the historic city centre.

The pedestrianised streets in the centre are attractive, but while they were not failed in the walking audit it must be stated that the surface is very uneven in places. This is a drawback with York stone paving and cobbles which may fit the historic nature of the location but will be a problem those with pushchairs, wheelchairs or other mobility issues. Some historic towns and cities have found solutions that allow the retention of these materials while removing most of their inherent unevenness.

The detailed LCWIP audit found that the pedestrian environment of central Chichester is not coherent. The LCWIP walking audit categories provide the context for addressing the issues that lead to the lack of coherence. This will allow the development of a clear vision of what a pedestrian friendly Chichester should look like. The more detailed findings are dealt with below. By addressing these it will be possible to create a pedestrian environment that truly enhances the visitor experience and therefore benefits the whole of Chichester.

It is important to note that the overall score can mask those links or areas which were rated as Poor on one or more of the assessment categories, with a score of zero. Around two-thirds (68) of the items audited had scores of zero on at least one category. These are described below in detail and shown in Plans 4-21.

Attractiveness

Plans 5, 6 and 7 below show the links (highlighted dotted yellow) and areas (yellow fill) that failed on one or more of the attractiveness categories.

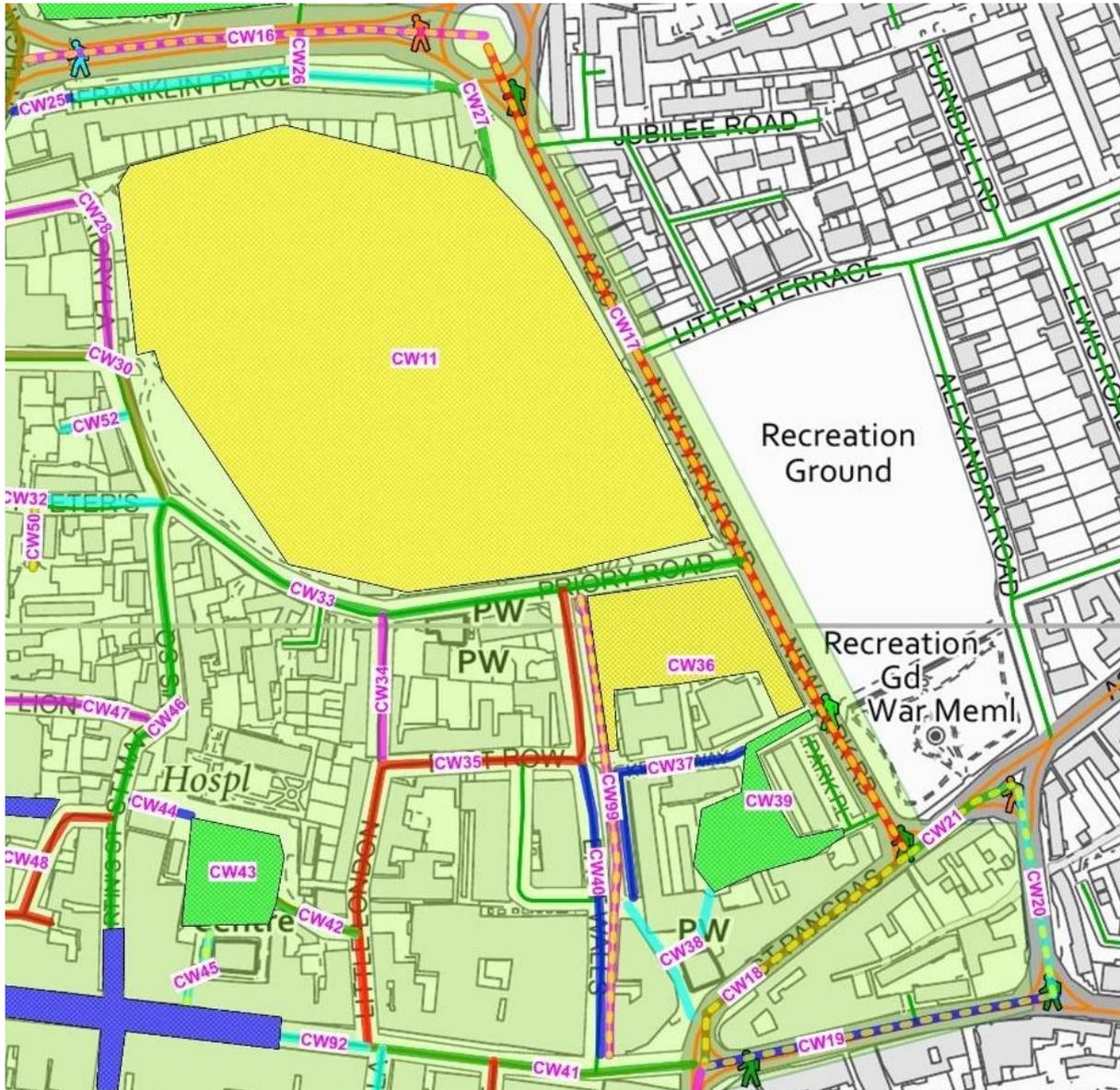
Plan 5. North west area



The links that failed on the attractiveness category were:

- **CW10** Orchard Street, which failed on traffic noise and pollution.
- **CW15** North Walls shared cycle/footpath and **CW54** North Walls footpath, both of which failed on the fear of crime category due to their isolated nature. This could be a deterrent to people walking and cycling, particularly after dark.

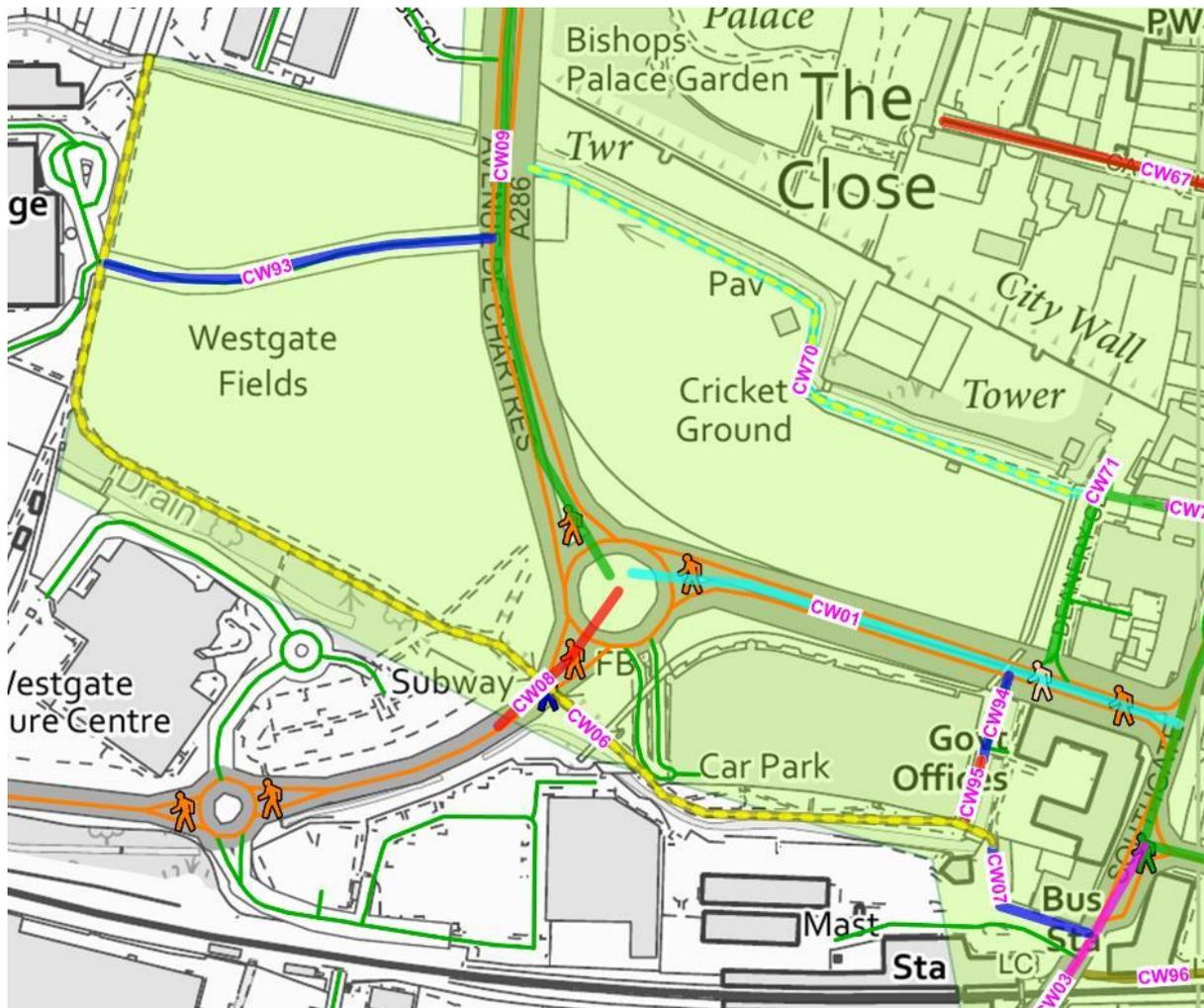
Plan 6. North East area



The links that failed on the attractiveness category were:

- **CW16** Oaklands Way failed on maintenance as parts of the narrow footpath on the south side is significantly overgrown by adjacent bushes.
- **CW17** New Park Road, **CW18 & CW21** St Pancras, **CW19** The Hornet and **CW20** Needlemakers all failed on traffic noise and pollution.
- **CW11** Priory Park, **CW36** New Park open space and Keats Way and **CW99** Upper Walls Walk failed on fear of crime, again due to their isolated nature.

Plan 7. South area



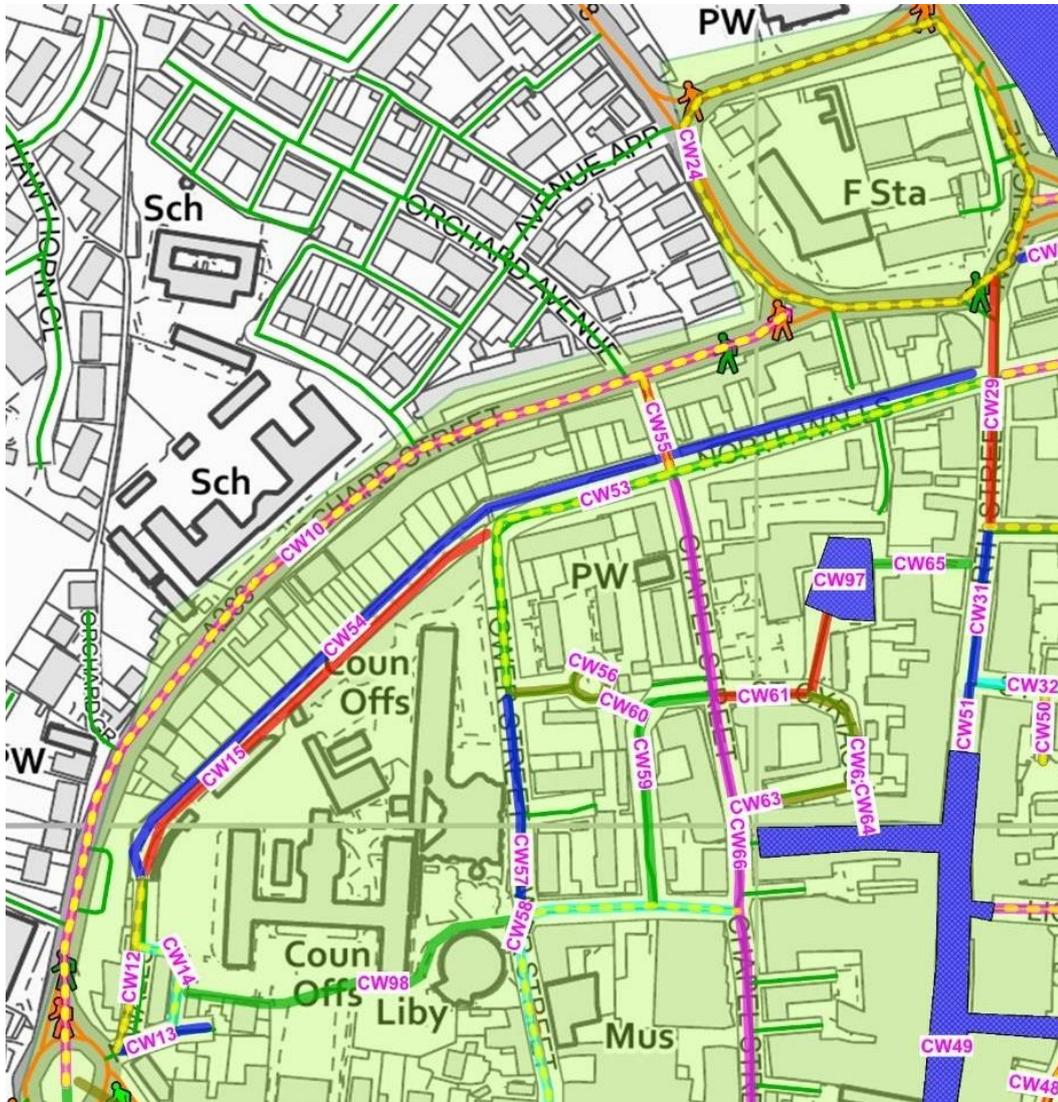
The links that failed on the attractiveness category were:

- **CW06** Chichester Station - Chichester College path and **CW70** Walls Walk by River Lavant, both of which failed on the fear of crime category due to their isolated nature.

Comfort

Plans 8, 9 and 10 below show the links (highlighted dotted yellow) and areas (yellow fill) that failed on one or more of the comfort categories.

Plan 8. North west area



The links that failed on the comfort category were:

- **CW10** Orchard Street has narrow pavements, areas of poor surfacing and a narrow island by the roundabout at its southern end.
- **CW24** Northgate gyratory, also has sections of narrow pavement which is poor for such a major feature.
- **CW12** and **CW53** (both North Walls) and **CW58** Tower Street & The Woolstaplers also have narrow pavements.

Plan 9. North east area



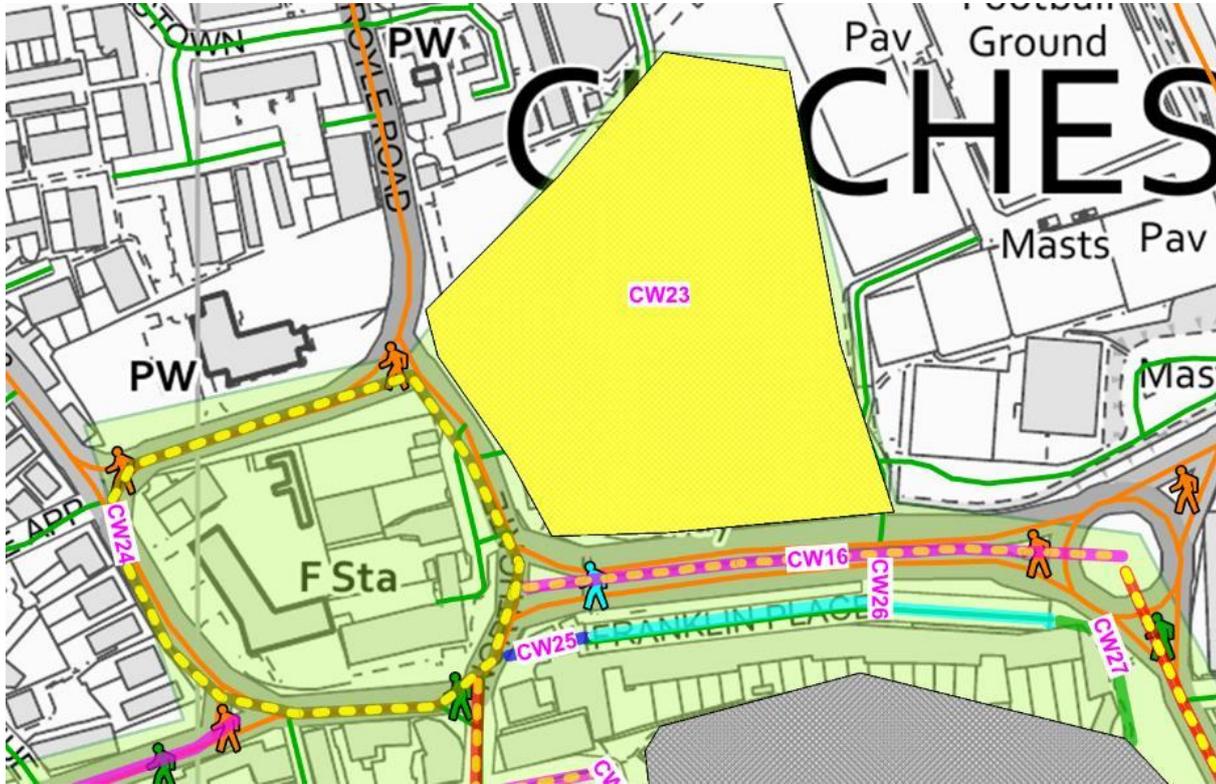
The links that failed on the comfort category were:

- **CW16** Oaklands Way, **CW17** New Park Road, **CW19** The Hornet, **CW33** Priory Road, **CW34** Little London, **CW47** Lion Street and **CW52** Jays Walk all have narrow pavements.
- **CW18** St Pancras and **CW28** Priory Lane have narrow pavements and issues with poor surface quality.
- **CW30** Guildhall & Priory Road have issues with crossing points.
- **CW35** Little London and East Row and **CW46** St Martin’s Street have bollards and parking meters obstructing and reducing already narrow pavement widths. Little London also has a redundant guardrail panel restricting it further.
- The north end of **CW99** Upper Walls Walk can only be accessed via steps.

Directness

Plans 11-15 below show the links (highlighted dotted yellow) and areas (yellow fill) that failed on one or more of the directness category.

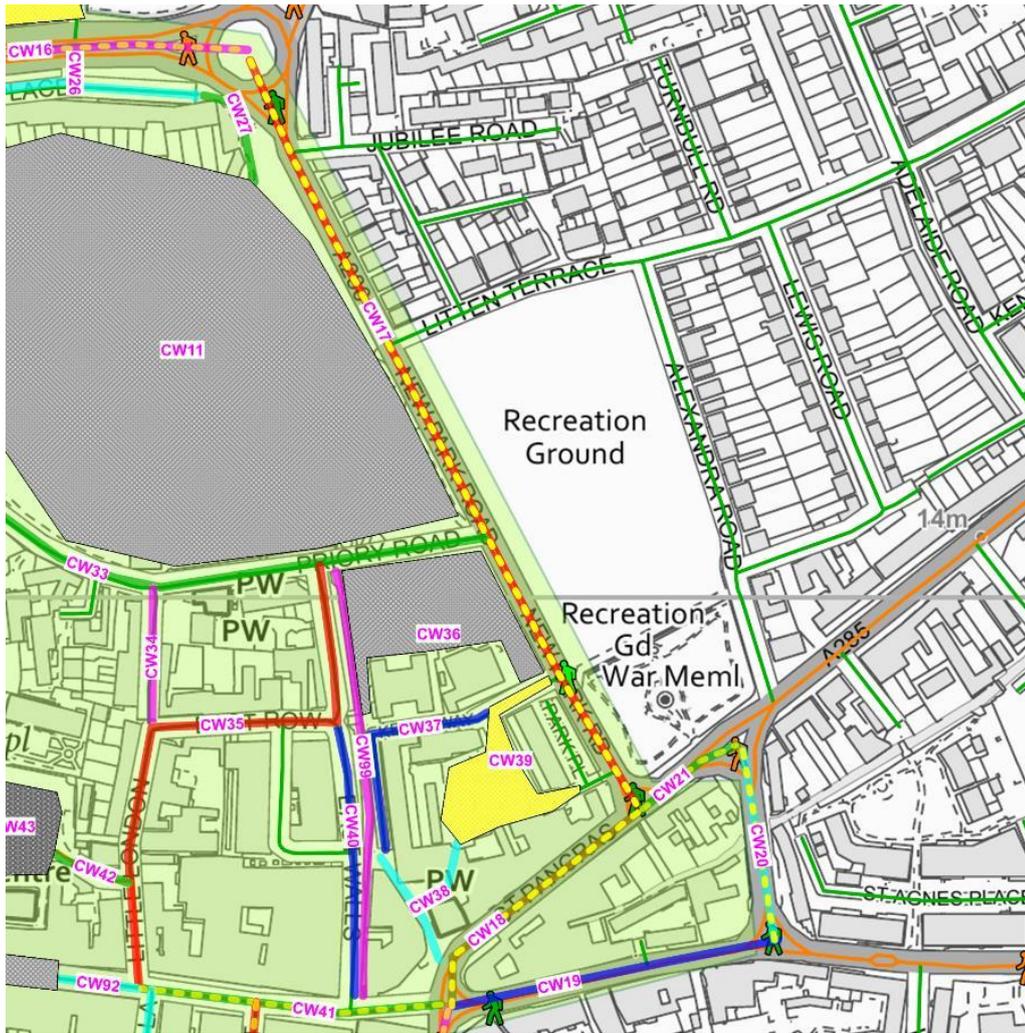
Plan 11. North area



The links that failed on the directness category were:

- **CW16** Oaklands Way has a central reservation which means there no places to cross informally along its length.
- **CW23** Northgate car park has very poor provision for pedestrians (including drivers and passengers walking to or from their cars), with no footpath provision whatsoever. There are pedestrian signs but these direct people along and across the car park roadways.
- **CW24** Northgate gyratory is missing crossings on key desire lines.

Plan 13. North east area



The links that failed on the directness category were:

- **CW17** New Park Road which suffers from lack of continuous pavement provision, crossings on desire lines, gaps in traffic in peak periods and staggered nature of existing crossing points.
- **CW18** St Pancras is also missing crossings on key desire lines and with staggered delay of exiting crossing provision.
- **CW20** Needlemakers has poor crossing location and heavy traffic at peak hours reducing crossing gaps.
- **CW21** St Pancras and **CW41** East Street both lack crossings on key desire lines.

Plan 14. South east area



The links that failed on the directness category were:

- **CW76** North & South Pallant and **CW78** South Pallant car park both have no footpaths or other walking provision on pedestrian desire lines.
- **CW77** Cawley Priory & East Pallant car parks, **CW81** Cooper Street car park, **CW84** Baffins Lane car park and **CW85** East Pallant all lack direct pavement provision and crossings on desire lines.
- **CW22** Market Road, **CW69** West & South Streets, **CW73** South Street, **CW75** Theatre Lane, **CW86** East Pallant and **CW90** St John’s Street are all missing crossings on key pedestrian desire lines.

Plan 15. South west area



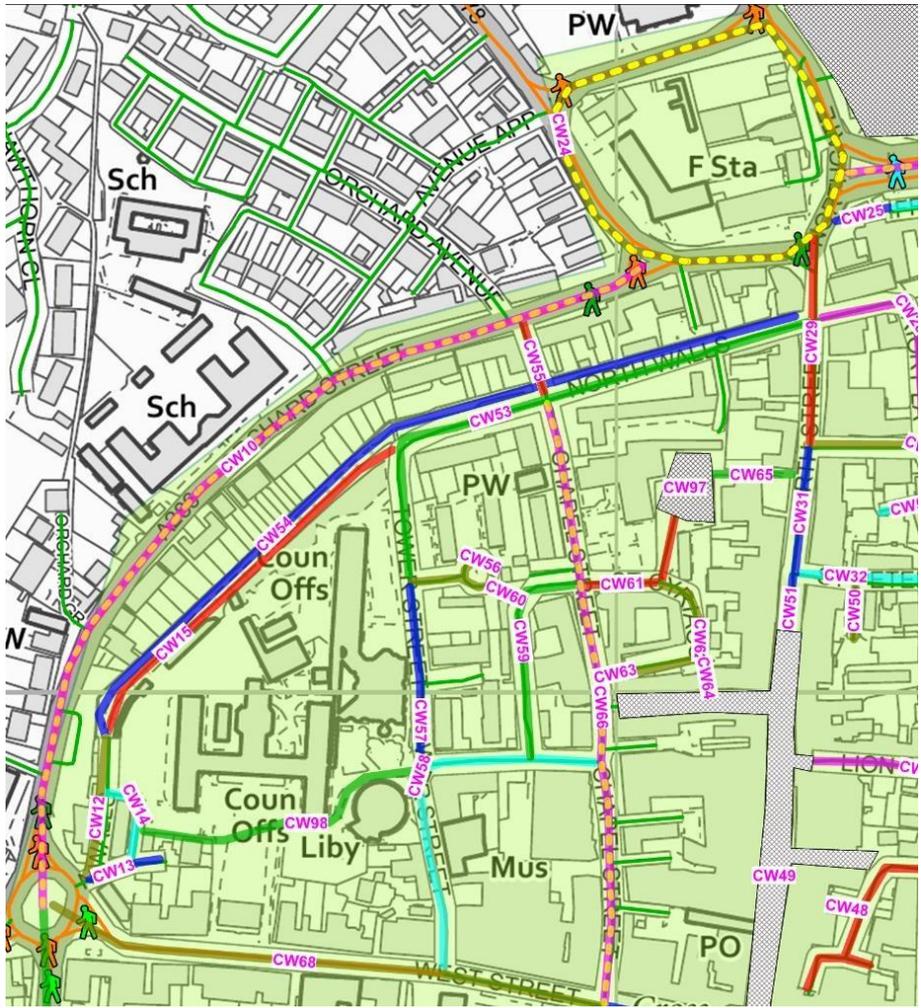
The links that failed on the directness category were:

- **CW08** Via Ravenna is missing pavement provision.
- **CW02** Southgate gyratory is missing continuous pavement provision and the staggered nature of existing crossings adds delay.
- **CW07** Station Access lacks continuous pavement provision, crossings on desire lines and staggered crossings adding to delay.
- **CW04** Basin Road and **CW71** Deanery Close lack crossings on pedestrian desire lines.
- **CW01** Avenue de Chartres lacks gaps in traffic during peak hours making it difficult to cross safely.

Safety

Plans 16, 17 and 18 below show the links (highlighted dotted yellow) and areas (yellow fill) that failed on one or more of the safety categories.

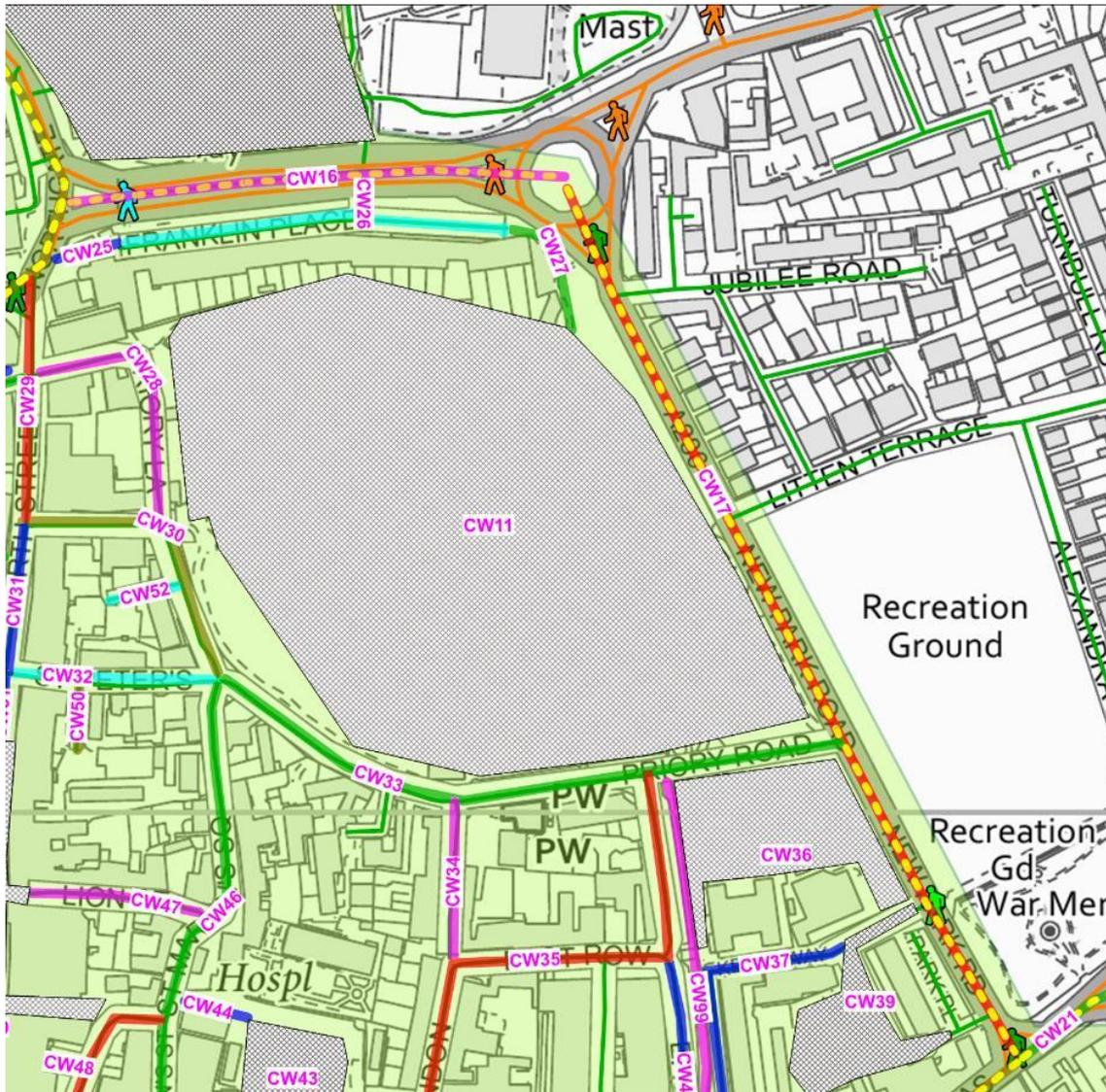
Plan 16. North west area



The links that failed on the safety category were:

- **CW66** Chapel Street where the crossings of side streets are consistently sited away from junctions where visibility was compromised.
- **CW10** Orchard Street has heavy traffic very close to pedestrians.
- **CW24** Northgate gyratory fails on all three safety categories, with proximity to heavy and fast moving traffic and some visibility issues at crossings.

Plan 17. North east area



The links that failed on the safety category were:

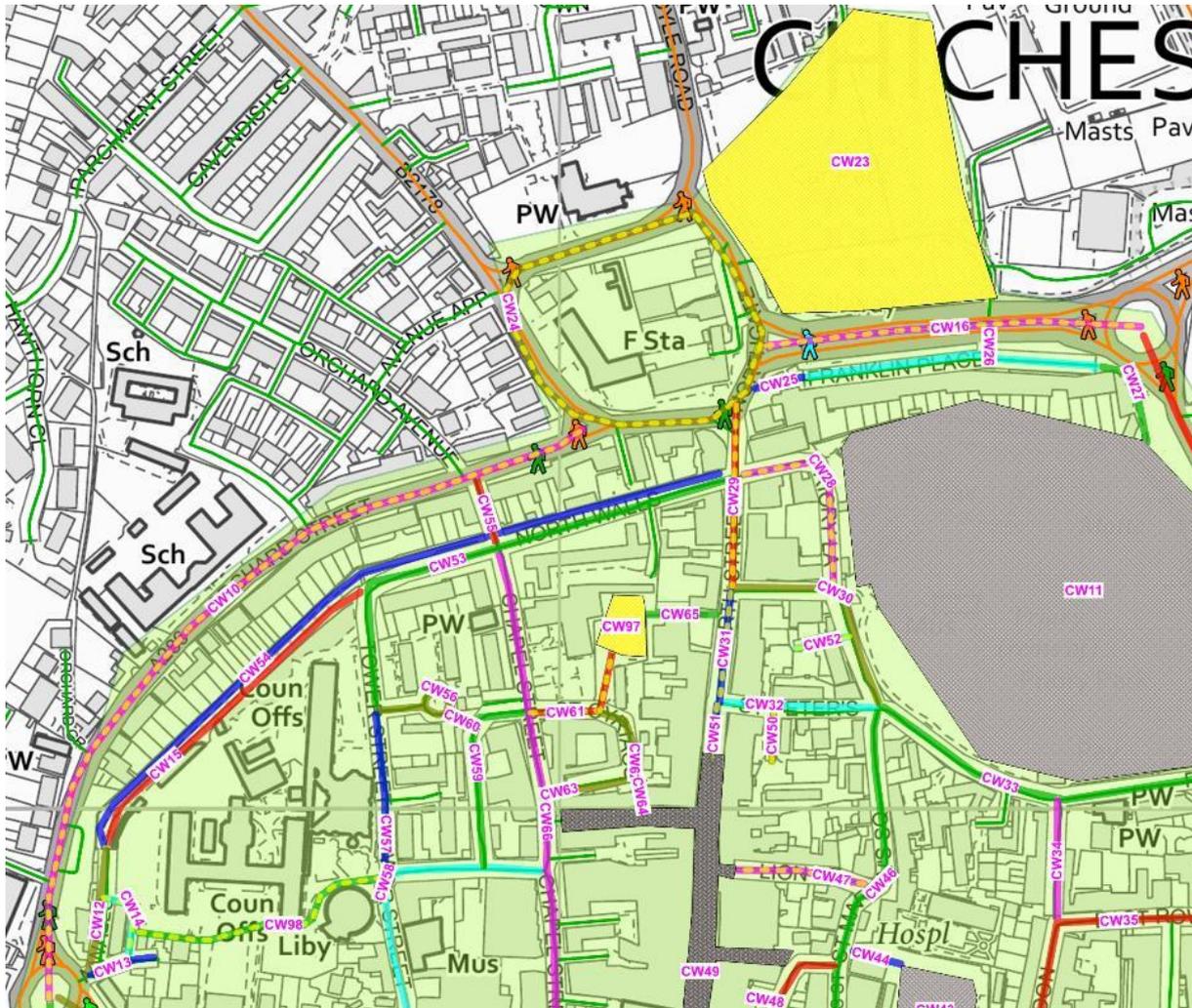
- **CW16** Oaklands Way has pedestrian proximity to heavy traffic.
- **CW17** New Park Road has close pedestrian proximity to heavy and fast moving traffic.

Coherence

Plans 19, 20 and 21 below show the links (highlighted dotted yellow) and areas (yellow fill) that failed on one or more of the directness categories.

Note that coherence refers to the clarity of the walking environment i.e. how clearly and sensibly walkers are given visual and tactile guidance on where to walk and are provided with minimal delay and inconvenience. It does not address other issues such as wayfinding.

Plan 19. North area

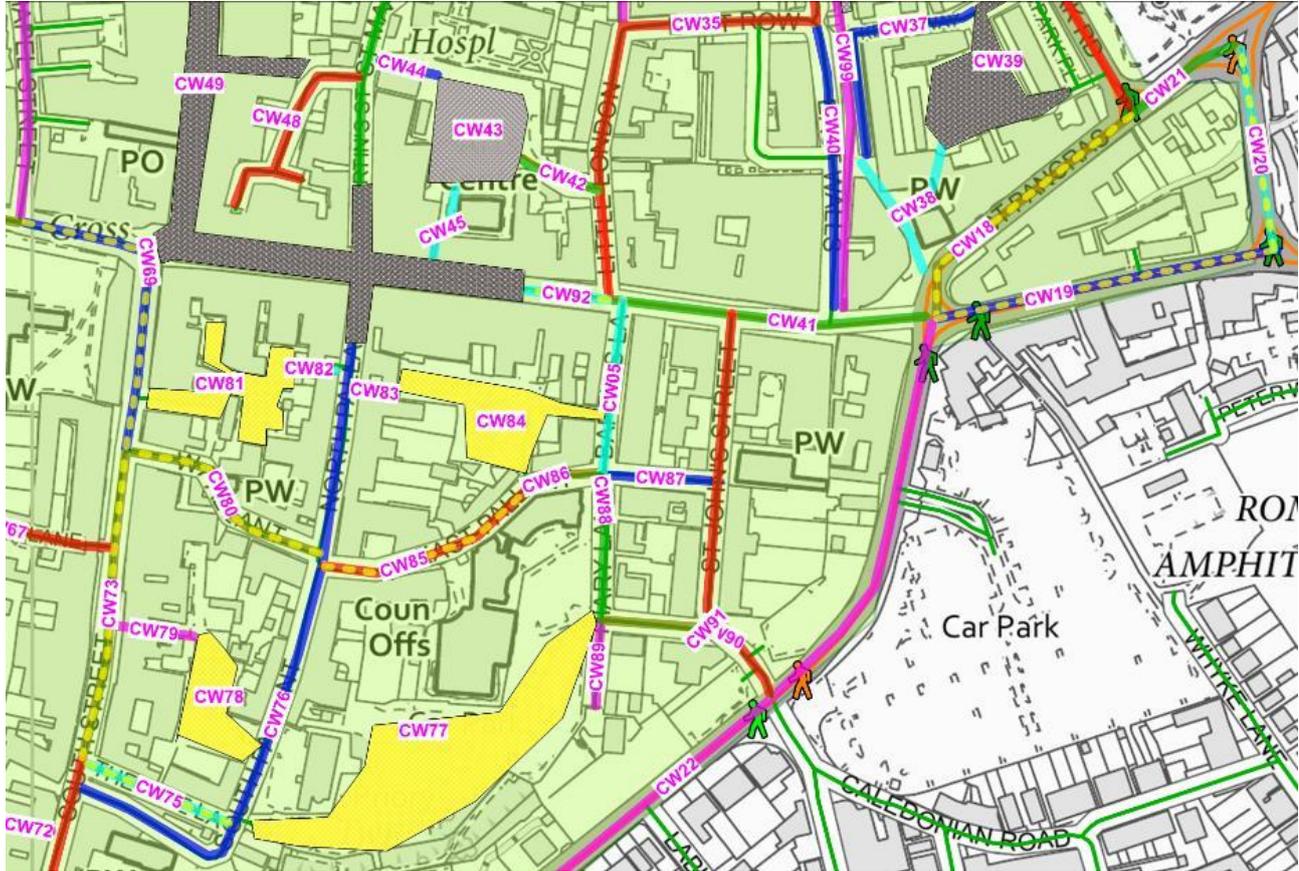


The following links and areas failed on the coherence category:

- **CW10** Orchard Street
- **CW14** West Sussex County Council access road
- **CW16** Oaklands Way
- **CW23** Theatre car park
- **CW24** Northgate gyratory
- **CW28** Priory Lane
- **CW29** and **CW31** North Street
- **CW47** Lion Street
- **CW50** St Peters
- **CW51** North Street

- **CW60** Path - Tower Close to The Providence
- **CW61** St Cyriacs
- **CW97** St Cyriacs car park
- **CW98** West Sussex County Council buildings

Plan 20. South east area



The following links and areas failed on the coherence category:

- **CW18** St Pancras
- **CW19** The Hornet
- **CW20** Needlemakers
- **CW69** West Street & South Street
- **CW73** South Street
- **CW75** Theatre Lane
- **CW77** Cawley Priory car park
- **CW78** South Pallant car park
- **CW80** West Pallant
- **CW81** Cooper Street car park
- **CW84** Baffins Lane car park
- **CW85** East Pallant
- **CW92** East Street

Plan 21. South west area

The following links and areas failed on the coherence category:

- **CW01** Avenue de Chartres
- **CW03** Southgate and Stockbridge Road
- **CW04** Basin Road
- **CW07** Station Approach
- **CW08** Via Ravenna
- **CW73** South Street
- **CW94** Access by multi-storey car park

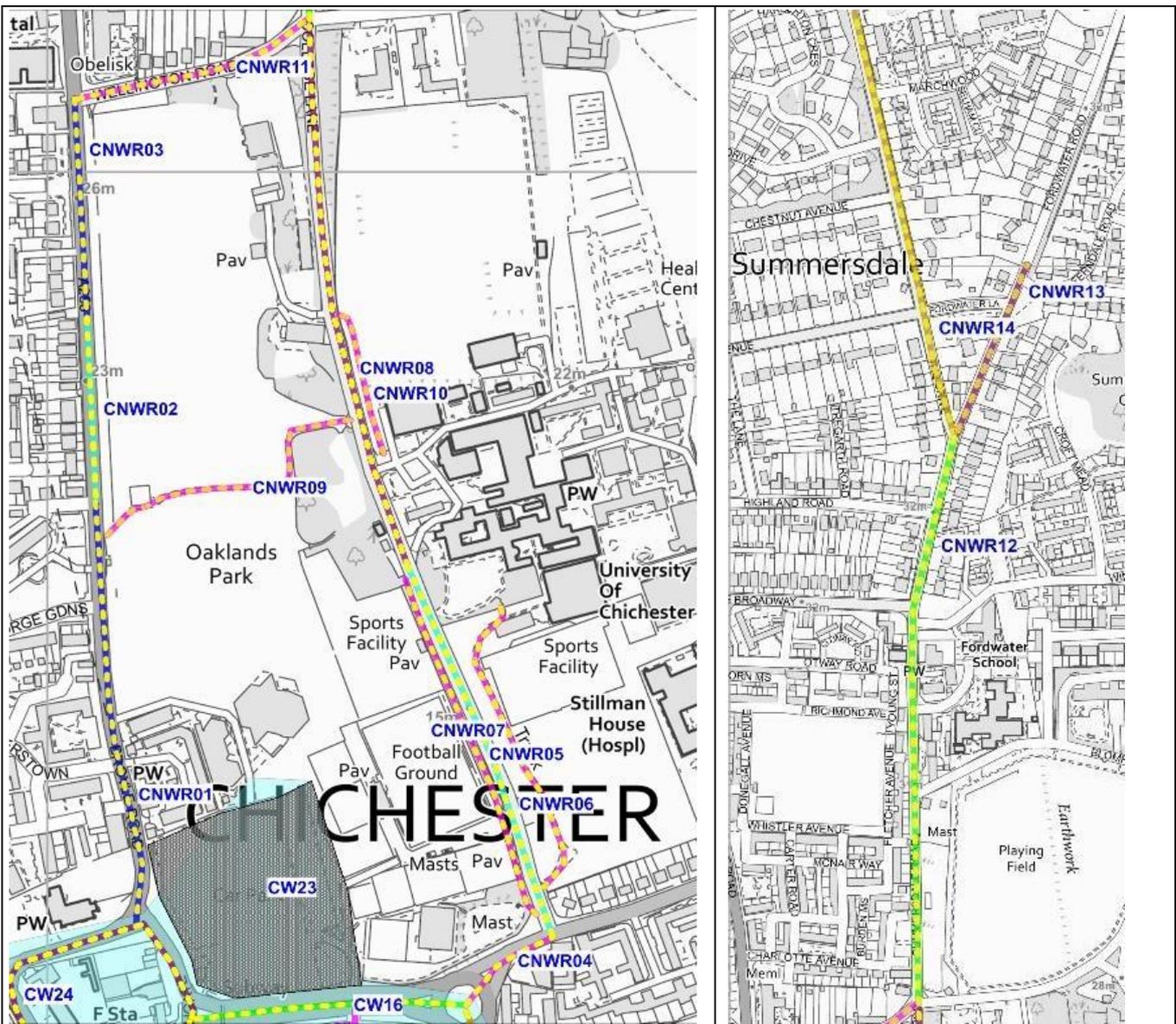
3. Key walking routes – detailed audit

A survey was undertaken of two corridor routes running north and west from the core area:

- Northern route – from the north of the core walking zone (Chichester Festival Theatre car park), including access to the University along College Lane and then further to the north along Summersdale Road. A linking section along Broyle Road and Wellington Road completed this corridor. The path from College Lane across Oaklands Park was also surveyed.
- Western route – west of the core walking zone along Westgate as far as Fishbourne Road West and Fishbourne Palace.

Northern route

Plan 22 Northern route



The northern route was split into 14 separate sections which are shown on the two plans to the left and right. All these sections are dotted yellow in the plans, indicating that they all failed at least one of the twenty assessment criteria.

The key section is the routing along College Lane between Spitalfield Lane and Wellington Road and particularly the southern section of this from the entrance to the University. This latter is served by

three possible approaches. However, one of these **CNWR07**, the path to the east of College Lane, only gives limited access to the south of the University.

College Lane itself is narrow with a footpath on the east side only. The footpath is very narrow and its condition is very poor. While the road is not heavily trafficked what traffic there is tends pass at speed due partly to being on a gradient and the overall tunnel effect is further exacerbated by walls and then trees along both sides. The environment feels very hostile for pedestrians in daylight hours.

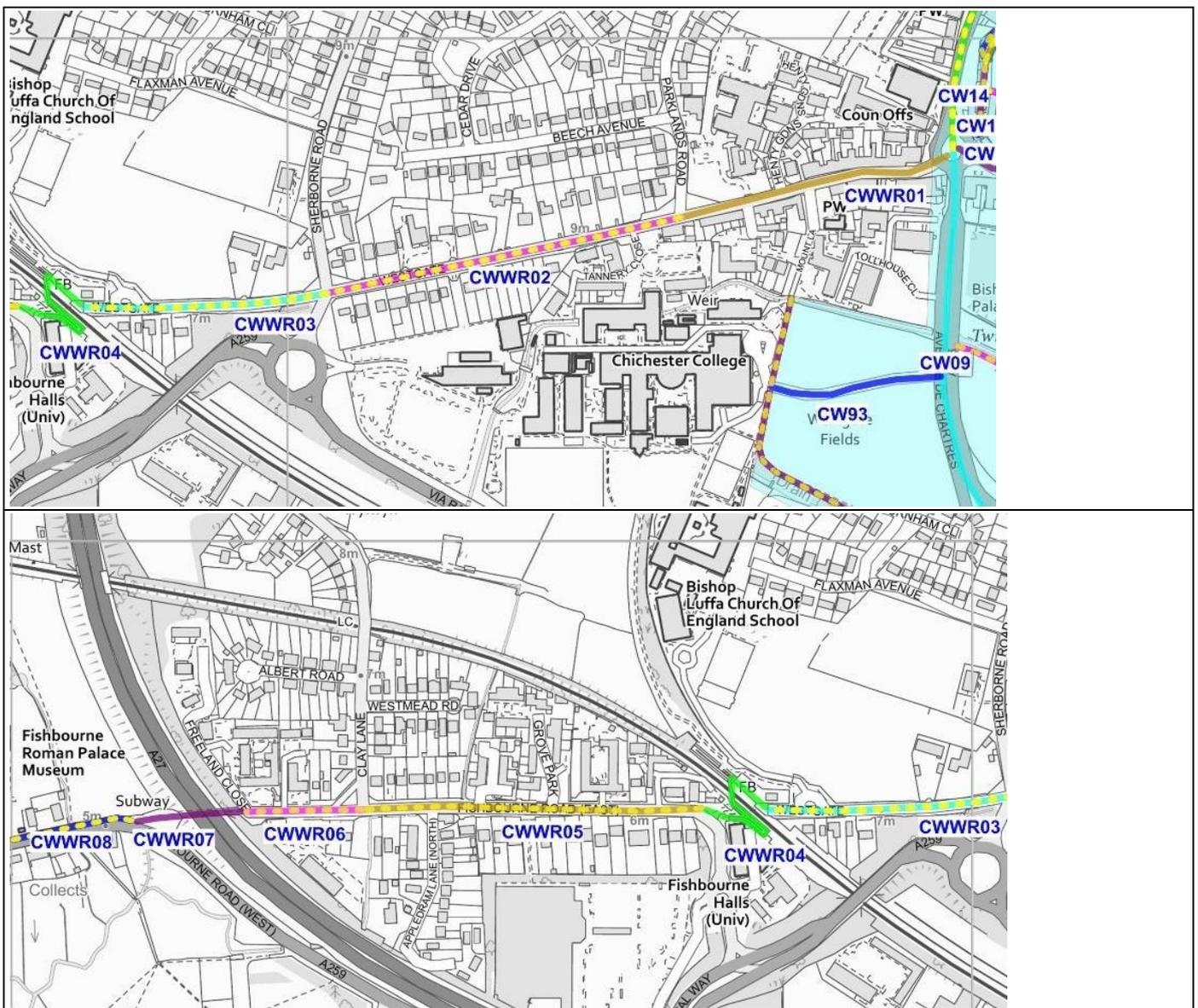
The path on the west side is behind the wall and some height above the road. This path is quite wide and winds through trees. In daylight it is well used by students but in darkness and quieter periods it is not really overlooked so is likely to be unattractive to lone pedestrians.

A solution to make this approach more attractive for walkers and cyclists would be make College Lane one way northbound as far as the college entrance, reducing the carriageway to single width and introducing traffic calming to reduce speeds. The footway could then be widened and a two-way cycle path constructed. There is likely to be more traffic to provide passive surveillance in the evening.

Alternatively, a full filter (with a bus gate) could be implemented.

Western Route

Plan 23 Western route



The eight sections of the western route are shown in the plan above. Those that failed any of the twenty assessment criteria are dotted yellow. Unlike the northern route there were three sections that did not fail any of the criteria.

It should be noted that the footbridge over the railway did not fail. While it is sub-standard from a cycle perspective, it is reasonable for people walking with a relatively gentle gradient and good visibility.

Four of the five sections that failed did so for coherence. This is primarily an absence of tactile paving and/or dropped kerbs at key desire crossing points. While we would expect all crossings of junctions and busier private accesses to have tactile paving, the provision at older minor accesses is often mixed. For the sections assessed here the presence of tactile paving was generally not coherent, with some minor crossings having tactile paving and some major ones lacking it. This is worse than having nothing at all as visually impaired people might then have a false sense of security.

The critical fails for each section are:

- **CWWR02** Westgate – failed for coherence and more crucially for the lack of crossing provision at its west end at the junction with Sherborne Road. This is a fairly busy roundabout where pedestrians on the south of Westgate must cross to the north as there is no footpath on the south side of Westgate west of the junction. This is wholly unsatisfactory for the most serious at grade crossing on the whole route.
- **CWWR03** Westgate – failed for the same reason of the crossing of its eastern junction, and coherence. The issues are even more severe on this side of the junction with missing crossing points and the disappearing footpath. Also at peak hours, traffic queues across the junction increasing the perceived hazard.
- **CWWR05 & CWWR06** Fishbourne Road East – both failed for issues of coherence and inconsistency in provision of tactile paving. Junctions also had wide swept curve accesses no matter how minor.
- **CWWR08** Fishbourne Road West – failed for some very poor surfacing and the total absence of any crossing from its south to north side on this section.

The full assessment scores for all the sections are shown in Section 4 below.

Junction of Westgate / Sherborne Road, from the south - traffic can back onto this from the south at peak times



Typical junction splay for a private residential access - much too large for this location



4. Detailed WRAT tables

Core Walking Zone links & areas scores *(critical fails highlighted red)*

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%	
CW01	Avenue de Chartres	2	2	1	2	1	1	0	2	2	2	2	2	0	2	1	2	1	1	2	0	28	70%	Missing tactile at Deanery Close crossing. Narrow refuge at Southgate junction. Central reservation means crossing away from fixed crossings difficult. Serious tree route issues on not wide paths
CW02	Southgate gyratory	2	2	1	1	2	1	2	2	2	2	0	2	1	0	2	2	1	1	2	2	30	75%	No pedestrian route past bus station & narrow pavement on inside of gyratory at this point
CW03	Southgate & Stockbridge Road	2	2	1	1	1	0	2	2	2	2	2	2	1	2	2	2	1	1	2	0	30	75%	Tactiles missing and pavement width poor at level crossing
CW04	Basin Road	1	2	1	1	1	1	2	2	2	2	1	0	1	1	2	2	1	1	2	0	26	65%	V poor crossing at north end - pavement on west side peters out short of crossing point
CW05	Baffins Lane	2	2	2	2	2	1	2	2	0	2	2	1	2	2	2	2	2	2	2	1	35	88%	
CW06	Chichester Station - Chichester College path	1	0	2	2	1	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	34	85%	Shared use (line separated) path with some sections too narrow, odd bit of overgrown bushes
CW07	Station Approach	2	2	1	1	2	1	2	2	2	2	0	0	2	0	2	2	1	2	1	0	27	68%	Very poor for pedestrians accessing shared path away from the station. Pedestrian comfort sacrificed to accommodate disabled parking bays
CW08	Via Ravenna	2	2	2	2	2	2	2	2	2	2	0	2	1	2	2	2	1	1	2	0	33	83%	No pavements and no tactiles at crossing at junction
CW09	Avenue de Chartres	2	1	1	2	1	1	2	2	2	2	2	2	1	2	1	2	1	1	2	2	32	80%	Some narrow points and tree root issues on path. Also path away from carriageway at points
CW10	Orchard Street	2	2	0	2	0	0	0	2	2	2	2	1	1	2	1	2	0	1	1	0	23	58%	Very narrow pavements at points. No tactiles at side roads and accesses. Ponding at some. Poor pavement surface and narrow island at southern end by roundabout

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments	
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%		
CW11	Priory Park	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38	95%	
CW12	North Walls	2	1	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	36	90%	Very narrow pavement
CW13	Wall Cottage Drive	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	39	98%	
CW14	West Sussex County Council access	2	1	2	2	2	0	2	2	2	2	0	1	2	2	2	2	2	2	2	0	32	80%	Not coherent	
CW15	North Wall shared path	1	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	37	93%	Very pleasant but not overlooked and vegetation needs trimming
CW16	Oaklands Way	0	1	1	2	1	0	2	2	1	2	2	0	1	2	2	2	0	1	2	0	24	60%	No tactiles, central reservation means no crossings. Narrow footpath overgrown in parts	
CW17	New Park Road	2	2	0	2	2	0	2	2	2	2	0	0	0	0	1	2	0	0	2	1	22	55%	Pavement not continuous on both sides and at points narrow. Insufficient crossings badly placed and some missing tactile	
CW18	St Pancras	2	2	0	1	0	0	2	2	2	2	2	0	1	0	2	2	0	0	2	0	22	55%	Very poor - narrow pavements, awful kerbs, inadequate crossings and lots of speeding traffic on one way race track	
CW19	The Hornet	2	2	0	1	2	0	2	2	2	2	2	1	1	2	2	2	0	0	1	0	26	65%	Very poor - narrow pavements & build out with dropped kerb on one side only	
CW20	Needlemakers	2	2	0	1	2	1	2	2	2	2	2	0	0	2	2	2	0	0	2	0	26	65%	Very wide with lots of fast traffic and inadequate crossings	
CW21	St Pancras	2	2	0	1	1	2	2	2	2	2	2	0	1	2	2	2	0	0	0	1	26	65%	Crossing at east end is poor for visibility & the whole thing is very sub-standard	
CW22	Market Road	2	2	2	2	2	0	2	2	2	2	2	0	1	1	2	2	1	0	2	2	31	78%	Crossings off desire lines and one narrow refuge	
CW23	Northgate car park	2	1	1	1	2	0	2	2	2	2	0	0	1	2	2	2	1	1	1	0	25	63%	Large car park with no pedestrian provision despite a route signed through it. Pedestrians have to mix with traffic.	
CW24	Northgate gyratory	2	2	1	2	1	0	2	2	2	2	2	0	1	2	2	0	0	0	0	0	23	58%	The problems with this gyratory are well documented but the pedestrian provision at all arms is dreadful and some of the pavement is very narrow	

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments	
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%		
CW25	Path access on west end of Franklin Place	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	40	100%	
CW26	Franklin Place	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	38	95%	No catering for pedestrian access at junction with Oaklands Way although this is probably not currently an issue
CW27	Path access on east end of Franklin Place	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%	
CW28	Priory Lane	2	1	2	2	0	0	2	2	2	2	0	2	2	2	2	2	2	2	2	2	0	31	78%	No pavement on most of length
CW29	North Street	2	2	1	2	2	1	2	2	2	1	2	0	2	2	2	2	1	1	2	0	31	78%	No tactiles and no decent crossings	
CW30	Guildhall Street & Priory Road	2	2	2	2	2	1	0	2	2	2	0	0	2	2	2	2	1	2	2	1	31	78%	Narrow pavement and incoherent when discontinued to cross to other side. No tactile	
CW31	North Street	2	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	1	1	2	0	34	85%	No tactiles at crossings	
CW32	St Peters	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	1	2	2	1	37	93%	One pavement pinch point	
CW33	Priory Road	1	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	1	2	2	1	35	88%	Pavement very narrow in parts	
CW34	Little London	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	1	37	93%	Very narrow pavements	
CW35	Little London & East Row	2	2	2	2	2	0	2	2	2	0	2	2	2	2	2	2	1	2	2	1	34	85%	Narrow footpath includes pointless guardrail panel and some bollards	
CW36	New Park open space	1	0	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	36	90%		
CW37	Lower Walls Walk & Keats Way	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%		
CW38	Church Square	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%		
CW39	New Park Road car park	2	1	2	2	2	0	2	2	2	2	0	2	2	2	2	2	1	2	1	1	32	80%	No pedestrian provision through car park	
CW40	East Walls	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	38	95%		
CW41	East Street	2	2	1	2	2	2	2	2	2	2	0	2	1	2	2	1	2	2	2	35	88%	Crossing at new paved area east end not on key desire line		
CW42	Access to Little	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	38	95%	No tactiles, otherwise good		

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments	
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%		
	London car park																								
CW43	Little London car park	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	1	2	2	2	2	37	93%	This has some good pedestrian provision but only in the north section of the car park
CW44	Path between St Martin's Street & Little London car park	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%		
CW45	Path between Little London car park & East Street	2	0	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	37	93%	Fine in daytime	
CW46	St Martin's Street	2	2	2	2	2	1	2	2	2	0	2	0	2	2	2	2	2	2	2	1	34	85%	Missing crossing points. Bollards and parking payment machine cause extra pinch points	
CW47	Lion Street	2	2	2	2	2	0	2	2	2	2	2	0	2	2	2	2	2	2	2	0	34	85%	Very narrow pavements with no dropped kerbs hence no formal crossings	
CW48	East Street pedestrian zone including Market Cross	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	38	95%	York stone slabs can be a bit uneven, similarly brick paving to a lesser extent	
CW49	North Street pedestrianised zone	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	38	95%	York stone slabs can be a bit uneven, similarly brick paving to a lesser extent	
CW50	St Peters	2	0	2	2	2	0	2	2	2	2	0	2	2	2	2	2	2	2	2	0	32	80%	Pavement vanishes and is very narrow. No tactiles.	
CW51	North Street	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	0	36	90%	No tactiles and no east west crossing at clear desire line at north end	
CW52	Jays Walk	2	1	2	2	2	0	2	2	2	2	0	2	2	2	2	1	2	2	1	33	83%	Mostly no pavement		
CW53	North Walls	2	2	2	2	2	0	2	2	2	2	1	2	2	2	2	2	2	2	2	1	36	90%	Inconsistent tactiles. Footpath only south side and very narrow at east end.	
CW54	North Walls path	1	0	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	36	90%	Only stepped access between either end. Vegetation needs trimming.	

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Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments	
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%		
CW55	Orchard Street	2	2	2	2	1	0	2	2	2	2	0	1	2	2	2	2	2	2	2	2	2	34	85%	Narrow pavements and discontinued on west side
CW56	Tower Close	2	2	2	2	2	1	2	2	2	2	0	0	2	2	2	2	2	2	2	2	1	34	85%	Pavement stops with unclear end
CW57	Tower Street	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	38	95%	
CW58	Tower Street & The Woolstaplers	2	2	2	2	2	0	2	2	2	2	2	0	2	2	2	2	2	2	2	2	1	35	88%	Narrow pavements in Tower Street and missing crossing at start of The Woolstaplers. Mixed tactiles provision.
CW59	The Providence	2	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	1	37	93%	No tactiles and crossing missing at path exit/entrance and off desire line at east end
CW60	Path between Tower Close & The Providence	2	1	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	0	35	88%	No dropped kerb at east end
CW61	St Cyriacs	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	0	37	93%	No tactiles
CW62	St Cyriacs	2	2	2	2	2	1	2	2	2	2	0	1	2	2	2	2	2	2	2	2	1	35	88%	No tactiles. Pavement provision incoherent
CW63	Path between St Cyriacs & Chapel Street	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%	
CW64	Path between St Cyriacs & Crane Street	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%	
CW65	Path between North Street & St Cyriacs car park	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%	
CW66	Chapel Street	2	2	2	2	2	1	2	2	2	2	2	0	2	2	2	2	1	2	0	0	32	80%	Crossings of side streets consistently off desire line, with some having no tactiles	
CW67	Canon Lane	2	1	2	2	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	35	88%	Narrow pavement which is very bumpy. North side pavement less than 1m wide for majority of length
CW68	West Street	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%	
CW69	West Street & South Street	2	2	2	2	1	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	0	35	88%	No tactiles at any crossing and no crossing at narrow at west end entry with obvious desire

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments			
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%				
																									line		
CW70	Walls Walk by River Lavant	1	0	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	36	90%	Not well overlooked but attractive path. Likely to suffer ponding in wet weather
CW71	Deanery Close	2	1	2	2	2	2	2	2	2	2	1	0	2	2	2	2	2	2	2	2	2	0	34	85%	Full pavement provision on west side only. Crossing with inadequate level of service and no tactiles at south end.	
CW72	Deanery Farm Lane	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%		
CW73	South Street	2	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	0	36	90%	Only able bodied people are expected to cross this street. One set of drops without tactiles	
CW74	Southgate	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%		
CW75	Theatre Lane	2	2	2	2	1	0	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	0	33	83%	Pavement narrow and non-existent on one side. Missing dropped kerbs.	
CW76	North & South Pallant	2	2	2	2	1	0	2	2	2	2	0	1	2	2	2	2	2	2	2	2	2	1	33	83%	Pavement very narrow and virtually non-existent in places with missing drops. York stone slabs also uneven	
CW77	Cawley Priory & East Pallant car parks	2	1	1	1	2	1	2	2	2	2	0	0	1	2	2	2	1	1	1	2	2	0	26	65%	Car park with no continuous pedestrian provision	
CW78	South Pallant car park	2	1	1	1	2	2	2	2	2	2	0	2	2	2	2	2	1	2	1	2	2	0	31	78%	No pedestrian provision through car park	
CW79	Passageway between South Street & South Pallant car park	2	1	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	37	93%		
CW80	West Pallant	2	2	2	2	2	0	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	0	34	85%	Narrow pavement on one side only for full length. No drops to access pavement side when provision ends on opposite side	
CW81	Cooper Street car park	1	1	2	2	1	0	2	2	2	2	0	0	2	2	2	2	1	2	1	2	2	0	27	68%	Route through car park with no pedestrian provision. Minimal footpath on access road	
CW82	Passageway between North	2	1	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	36	90%	Narrow passageway	

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Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%	
	Pallant & Cooper St																							
CW83	Passageway between North Pallant & Baffins Lane car park	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	37	93%	
CW84	Baffins Lane car park	2	1	1	1	2	0	2	2	2	2	0	0	2	2	2	2	1	1	1	0	26	65%	No pedestrian provision through car park. Very poor provision on accesses. Narrowing, missing drop kerbs etc.
CW85	East Pallant	1	2	2	2	1	0	2	2	2	2	0	0	2	2	2	1	2	2	1	0	28	70%	Pavement narrows significantly on both sides and vanishes on one. Surface rather uneven and drops missing
CW86	East Pallant	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	1	2	2	1	36	90%	Missing drop kerbs at car park access	
CW87	New Town	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38	95%	
CW88	Friary Lane	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	98%	
CW89	Friary Lane	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38	95%	
CW90	St John's Street	2	2	2	2	1	1	2	2	2	2	2	0	2	2	2	2	1	1	1	1	32	80%	Missing drops for one crossing point desire line
CW91	St John's Street	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	1	38	95%	Pavement only north side for full length and missing tactiles
CW92	East Street	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	37	93%	Missing tactile on one side of critical crossing (north east end)
CW93	Chichester College access road	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	38	95%	Pavement on south side only
CW94	Access road by multi-storey car park	2	1	2	1	2	1	2	2	2	2	0	2	2	2	2	2	2	2	2	0	33	83%	Connects to path to station and footpath vanishes before road closure. No tactiles at dropped kerb crossing.
CW95	Path between Chichester Station & Avenue de Chartres	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1	37	93%		

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments	
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%		
CW96	Access road by multi-storey car park	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38	95%	
CW97	St Cyriacs car park	2	1	2	2	2	0	2	2	2	2	0	2	2	2	2	2	1	2	1	0	31	78%	Car park lacking any pedestrian provision on what could be a useful through route	
CW98	West Sussex County Council campus	2	0	2	2	2	0	2	2	2	2	0	2	2	2	2	1	2	1	0	30	75%	Could be a useful link but as with other areas dominated by car parking there is no proper pedestrian provision		
CW99	Upper Walls Walk	2	0	2	2	2	2	2	2	1	0	2	2	2	2	2	2	2	2	2	2	35	88%	Ramped access at south end only with steps at north end	

Key northern and western walking routes scores (critical fails highlighted red)

Ref	Street name	ATTRACTIVE-NESS				COMFORT						DIRECTNESS						SAFETY			COHER-ENCE	TOTAL		Comments
		A1	A2	A3	A4	Cm1	Cm2	Cm3	Cm4	Cm5	Cm6	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ch1	SCORE	%	
Northern route																								
CNWR01	Broyle Road	2	2	1	2	2	2	0	2	1	2	2	0	1	2	2	2	1	1	2	2	31	78%	Wide splays at junctions and refuge crossing has steps on east side and is narrow
CNWR02	Broyle Road	0	2	0	2	0	0	0	2	1	2	2	2	1	2	2	2	0	1	2	0	23	58%	Very narrow footway that is in poor condition on west side. Crossings at either end of this section are narrow and have steps only on east side
CNWR03	Broyle Road	2	2	1	2	2	2	0	2	2	2	2	0	1	1	1	2	1	1	2	1	29	73%	Crossing at south end narrow and steps only off on east side. Crossing at north end off desire line
CNWR04	Spitalfield Lane	2	2	1	2	2	2	2	2	2	2	2	0	0	2	2	2	0	1	0	0	28	70%	No proper crossing to university
CNWR05	Path to west side of College Lane	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	0	35	88%	May be lit but heavily wooded and not overlooked
CNWR06	College Lane	0	1	1	2	0	0	0	2	1	2	1	2	2	2	2	2	1	0	2	2	25	63%	Very narrow path on east side only. Poorly maintained & in bad condition. Very narrow refuge at southern crossing and dropped kerbs only at busy northern crossing. Speed high as on hill.
CNWR07	Path through University grounds parallel to College Lane	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	36	90%	Open and there is some CCTV but would be unattractive at quiet times in darkness
CNWR08	College Lane	1	1	1	2	2	0	2	2	2	2	1	0	2	2	2	2	0	1	0	0	27	68%	Narrow pavement on east side only and no dropped kerbs at northern end crossing of Connolly Lane which has very wide splays
CNWR09	Path across Oaklands Park	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38	95%	Not lit or overlooked and winds past trees
CNWR10	Path in university grounds parallel to College Lane	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	37	93%	Stepped access only at northern end
CNWR11	Wellington Road	2	2	2	2	2	1	2	1	2	2	2	0	2	2	2	2	1	2	0	0	33	83%	No crossings at east end and off desire line to cross Broyle Road at west end
CNWR12	Summersdale	2	1	2	2	0	1	2	2	2	2	1	0	2	2	2	2	0	0	0	0	27	68%	Side roads have very wide splays and some

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5. Full LCWIP Walking Route Assessment Tool criteria

NOTE: reproduced without changes (other than formatting) from DfT guidance:

www.gov.uk/government/uploads/system/uploads/attachment_data/file/602531/walking-route-audit-tool.xlsx

Audit Categories	2 (Green)	1 (Amber)	0 (Red)
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).
3. ATTRACTIVENESS - traffic noise & pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: <ul style="list-style-type: none"> - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards 		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m & 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.
7. COMFORT - width on staggered crossings / pedestrian islands / refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m & 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.

Audit Categories	2 (Green)	1 (Amber)	0 (Red)
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8% (1 in 12).	Gradients exceed 8% (1 in 12).
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines, e.g. next to road	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross away from these)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.
20. COHERENCE - dropped kerbs/ tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.

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Chichester City LCWIP

Appendix B

Cycling audit & route assessments



June 2020



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1. Introduction

To assess how safe and convenient it is to cycle around Chichester, a desk-based study was carried out to assess the level of cycling skills needed to use the highway network. This was followed up by a number of site visits to confirm the desk research and investigate crossing points on the network.

The process was based on Transport Initiatives' Cycle Skills Network Audit, scaled back for speed and cost-effectiveness (omitting an area-wide assessment of paths and cycle tracks). Detailed plans of the audit are given below, followed by assessments of the identified routes.

Family cycling, South Street



NCN 2 path between Chichester station and Chichester College



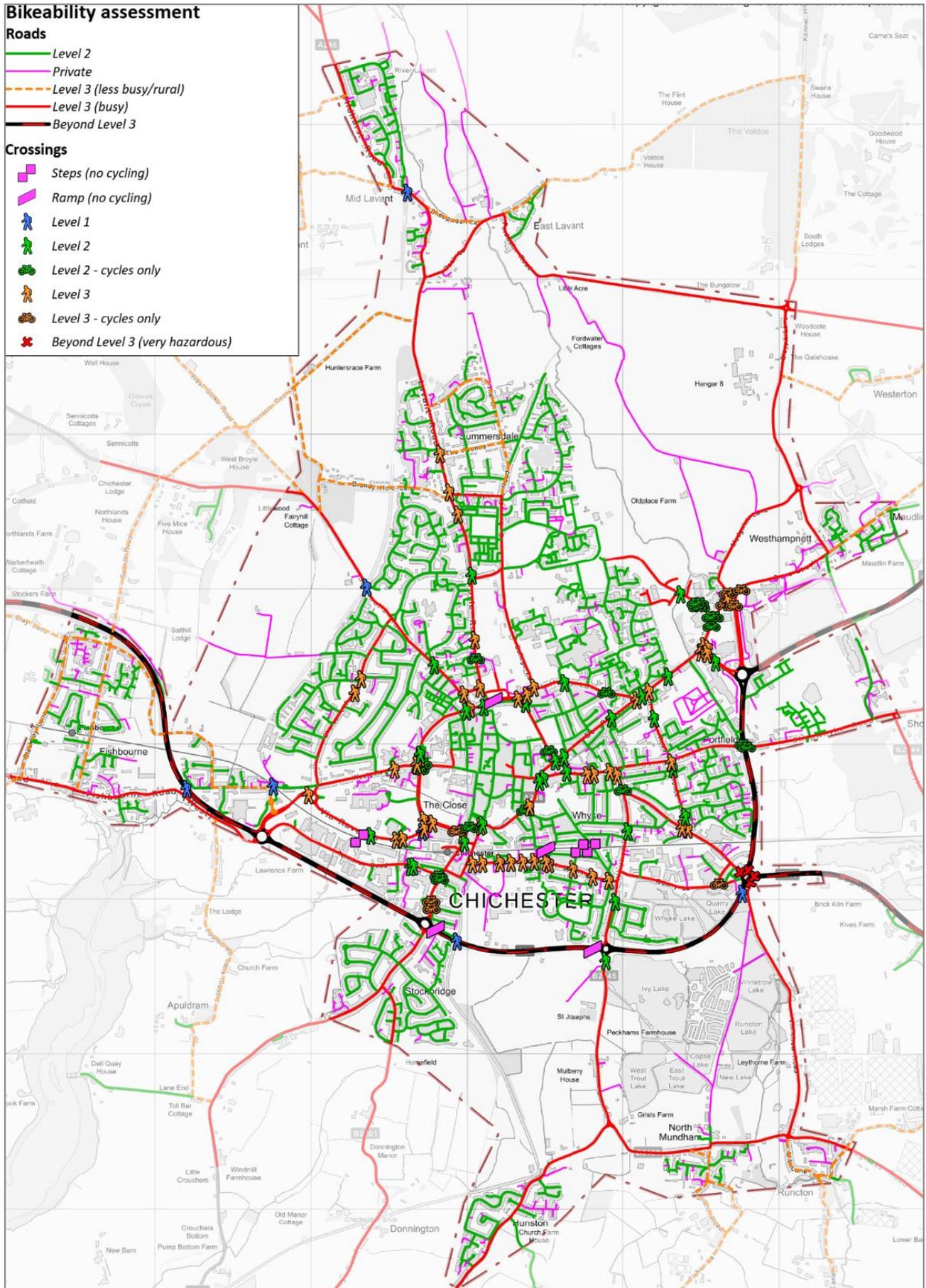
2. Cycle audit plans

Table 1 sets out the Bikeability assessment levels used in the following plans.

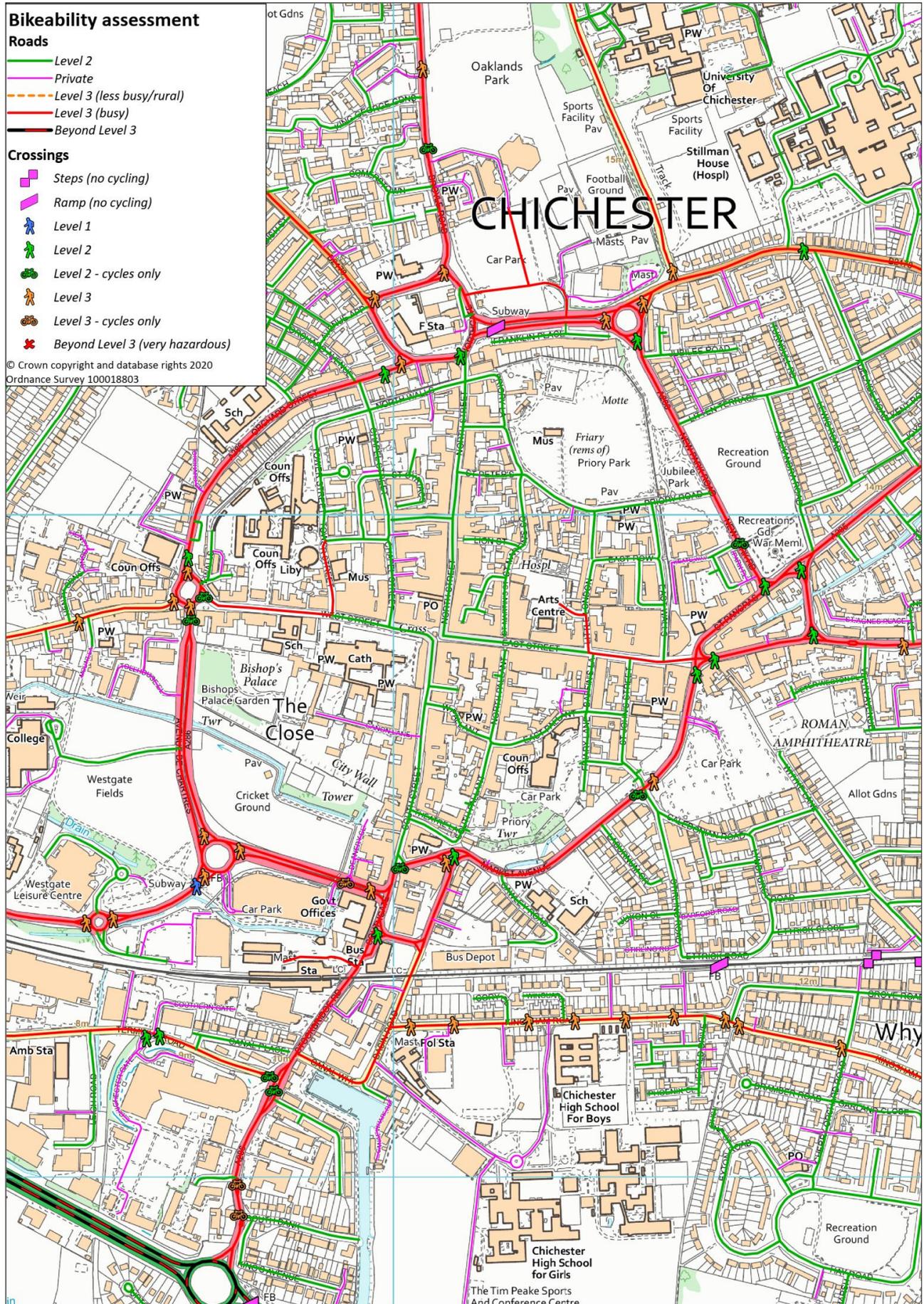
Table 1: Bikeability assessment audit levels

Level	Type	Description
Level 2	Road	Residential or other quiet street, suitable for most people cycling including older children (i.e. with skills equivalent to Level 2 Bikeability)
Private	Road	Private street – access may be allowed at some times (generally similar to Level 2)
Level 3 (less busy/rural)	Road	Busier road in urban areas (e.g. rat run) or minor road in rural areas with lower traffic but high speeds, generally only suitable for less risk averse cyclists
Level 3 (busy)	Road	Busy road only suitable for less risk averse cyclists (i.e. with skills equivalent to Level 3 Bikeability)
Beyond Level 3	Road	Very busy road with fast moving traffic, unsuitable even for experienced cyclists (e.g. A27)
Steps	Crossing	Grade-separated crossing (bridge or subway) with steps
Ramp	Crossing	Grade-separated crossing with ramp but cycling prohibited
Level 1	Crossing	Grade-separated crossing with ramp with cycling allowed
Level 2	Crossing	Higher quality/protected crossing – walking only
Level 2 – cycles	Crossing	Higher quality/protected crossing – walking & cycling (or cycling-only)
Level 2	Crossing	Lower quality/unprotected crossing – walking only
Level 2 – cycles	Crossing	Lower quality/unprotected crossing – walking & cycling (or cycling-only)
Beyond Level 3	Crossing	Very hazardous crossing for any user

Plan 1: Bikeability assessment of roads and crossings in the LCWIP area



Plan 3: Bikeability assessment of roads and crossings in Chichester city centre

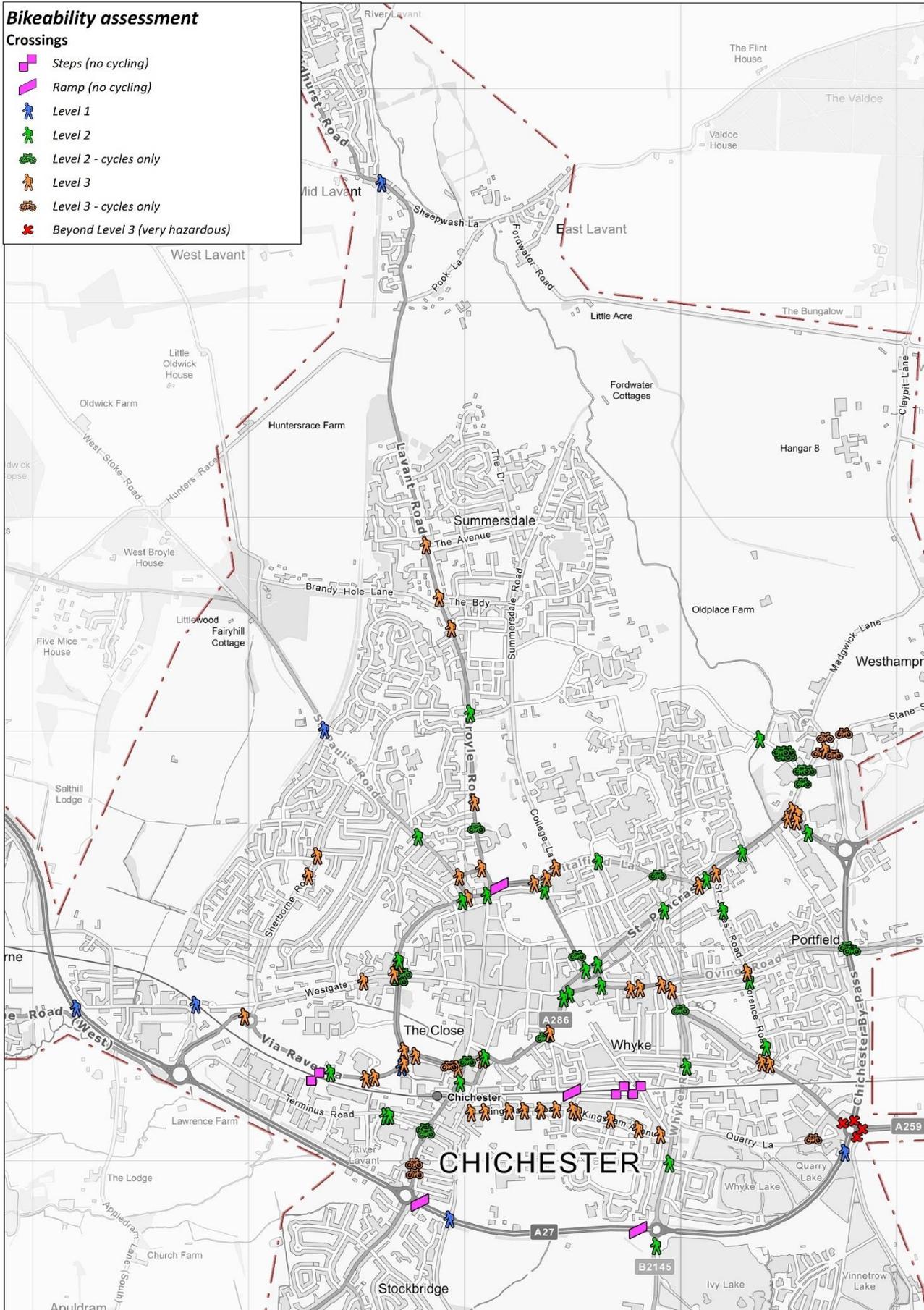


Plan 4. Crossings

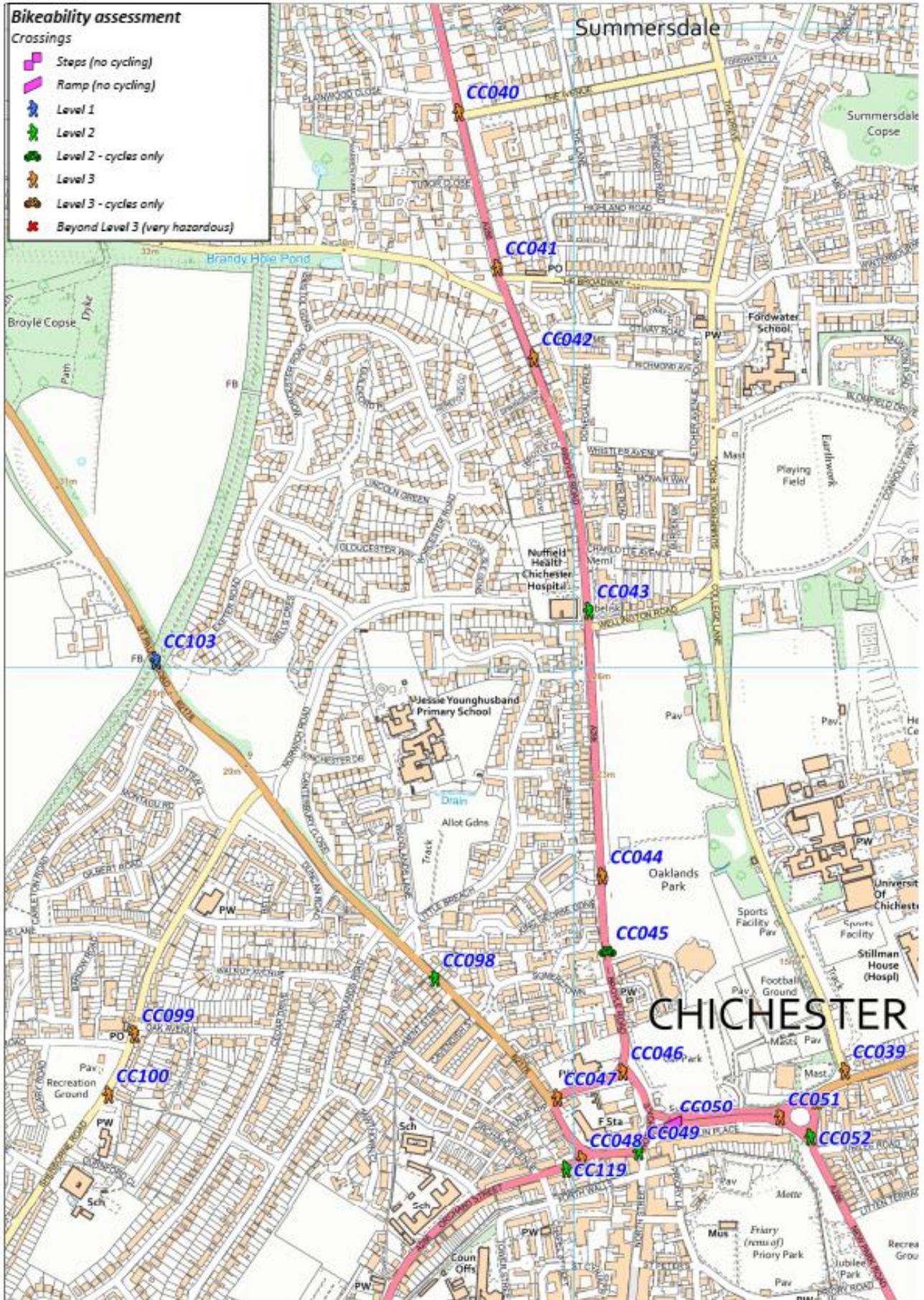
Bikeability assessment

Crossings

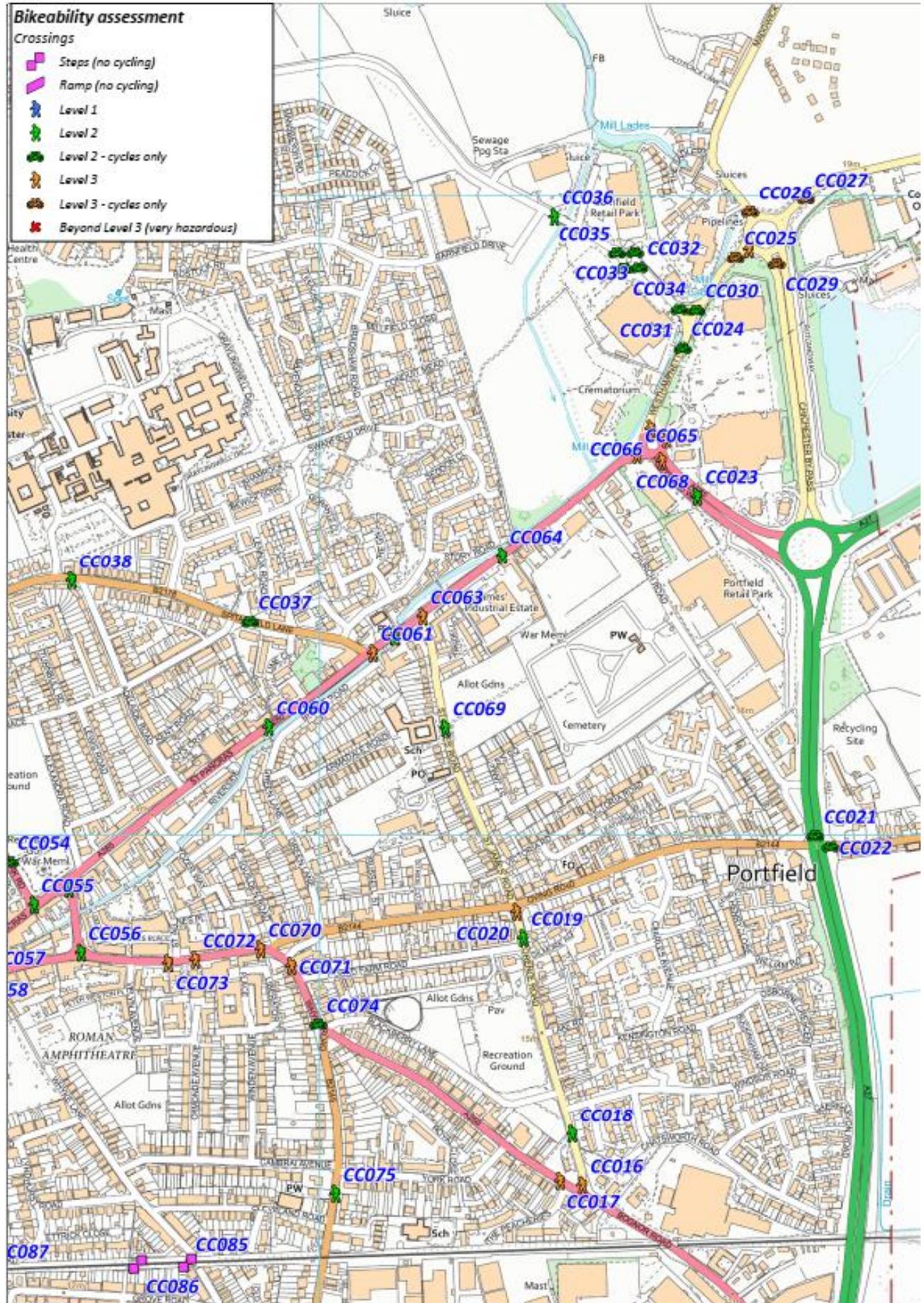
-  Steps (no cycling)
-  Ramp (no cycling)
-  Level 1
-  Level 2
-  Level 2 - cycles only
-  Level 3
-  Level 3 - cycles only
-  Beyond Level 3 (very hazardous)



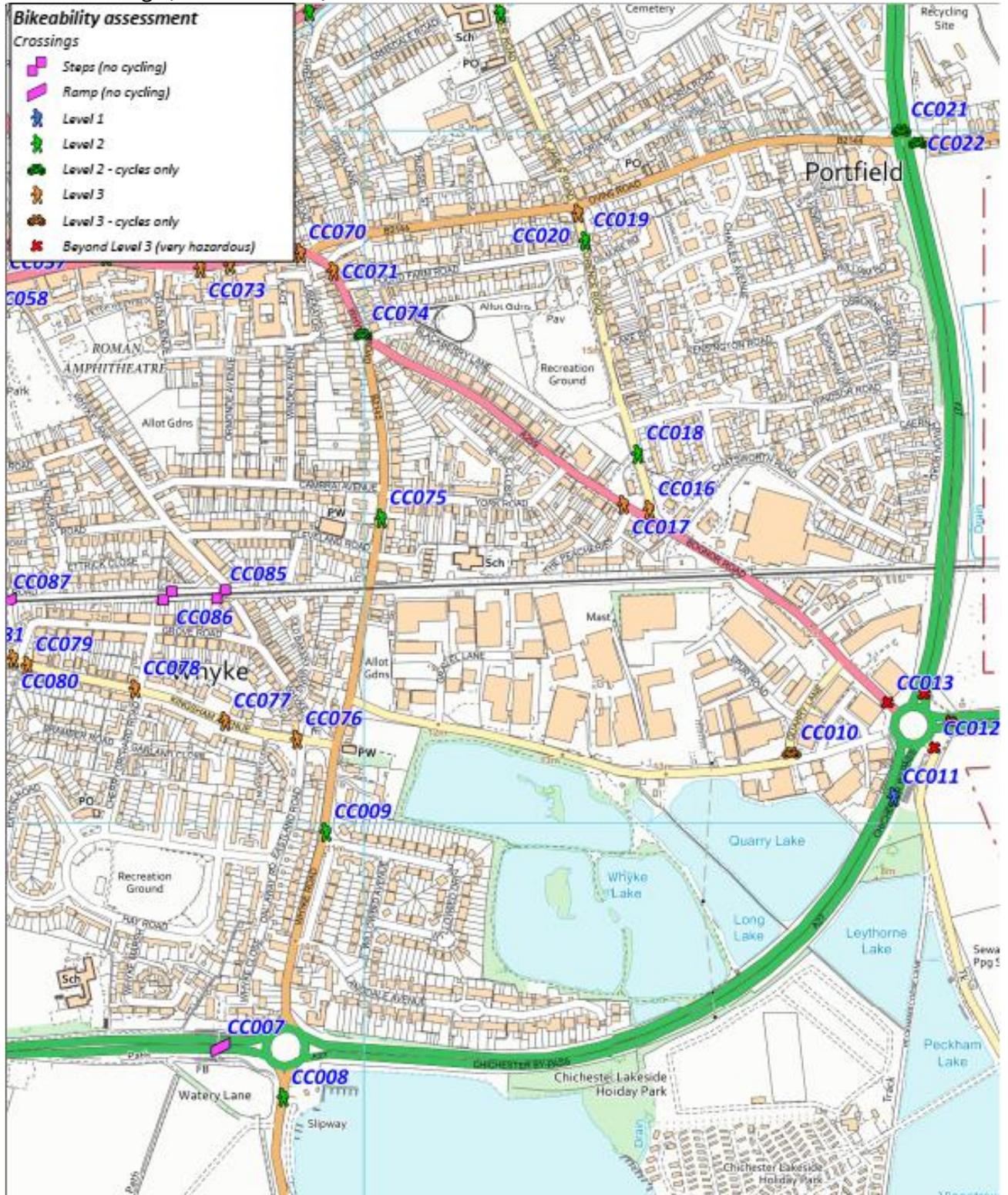
Plan 5. Crossings (north-west area)



Plan 6. Crossings (north-east area)



Plan 7. Crossings (south-east area)



Plan 8. Crossings (south-west area)

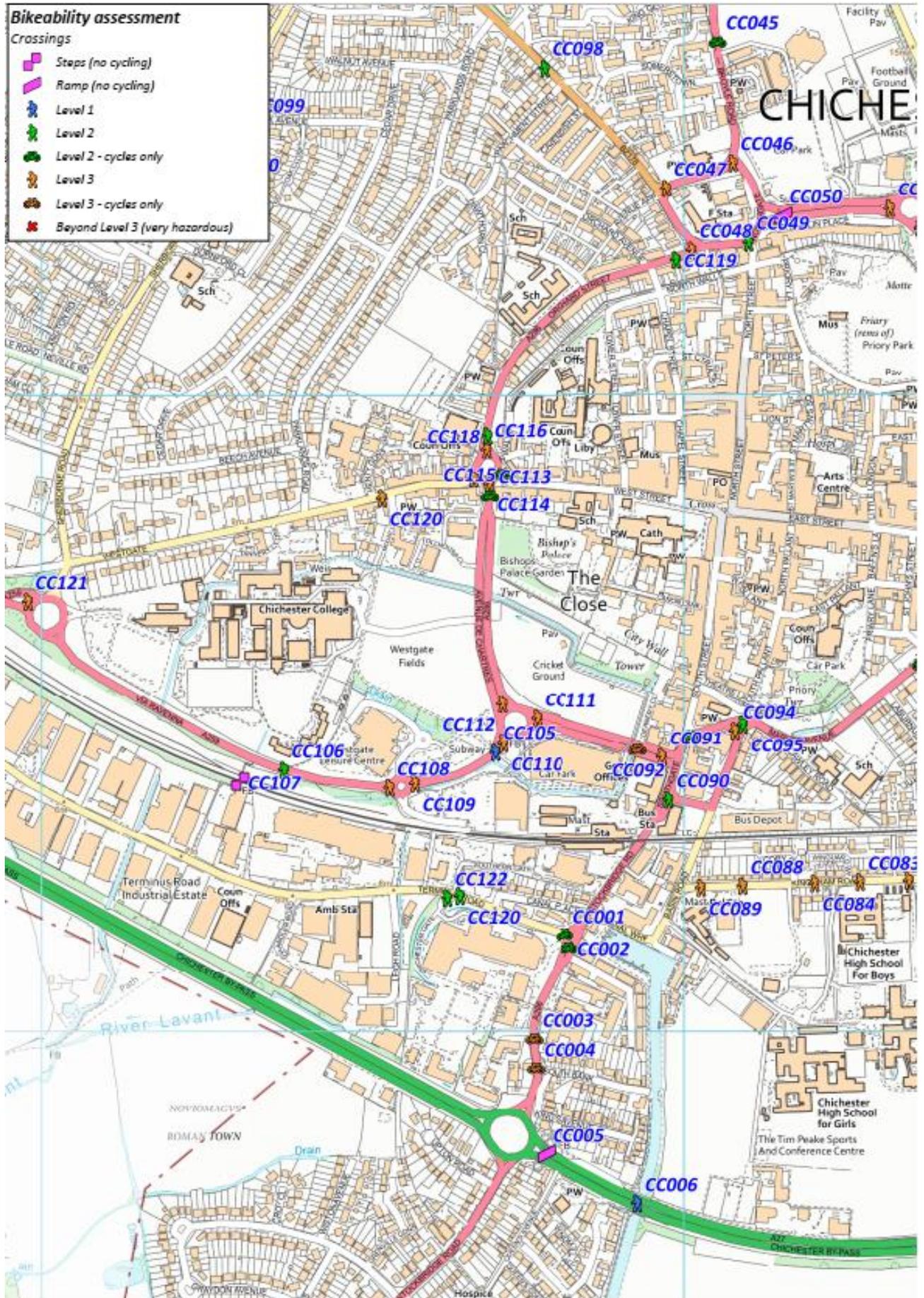


Table 2. Schedule of Crossings

Ref	Crossing type	Level	Gateway	Comments
CC001	Toucan phase	2.1	Existing shared	
CC002	Toucan phase	2.1	Existing shared	Adequate for pedestrians but the intention is that southbound cyclists turn into very sub-standard cycle lane so Level 3 for cyclists
CC003	Refuge	3.1	Existing pedestrian & potential shared	
CC004	Cycle only refuge into cycle lane	3.1	Potential cycle	Lane is narrow & lost in vegetation
CC005	Footbridge	0.5	Existing pedestrian & potential shared	
CC006	Under bridge	1	Existing shared	
CC007	Footbridge	0.5	Existing pedestrian & potential shared	
CC008	Refuge	2	Existing pedestrian & potential shared	
CC009	Puffin	2	EP	
CC010	Dropped kerbs	3.1	Potential shared	
CC011	Footbridge	1	Existing shared	
CC012	Dropped kerbs	4	Potential shared	Awful
CC013	Dropped kerbs	4	Potential shared	Awful
CC014	Island	4	Potential shared	5 lanes of fast moving traffic to cross
CC015	Reservation	4	Potential shared	It may be wide but it is still very hazardous getting to it
CC016	Refuge	3		Narrow & no tactile
CC017	Refuge	3		Narrow & no tactile
CC018	Puffin	2	Existing pedestrian & potential shared	
CC019	Puffin	2		
CC020	Refuge	3		Narrow
CC021	Toucan phase with reservation	2.1		
CC022	Cycle only phase	2.1		Pointless as you need level 3 skills to get to it along the very hazardous Shopwhyke Road
CC023	Puffin with reservation	2	Existing pedestrian & potential shared	
CC024	Toucan	2.1	Existing shared	
CC025	Dropped kerbs	3.1		
CC026	Island	3.1		
CC027	Dropped kerbs	3.1		
CC028	Island	3		
CC029	Reservation	3.1		All this roundabout should be tightened up
CC030	Island	2.1	Existing shared	
CC031	Island	2.1	Existing shared	
CC032	Island	2.1	Existing shared	
CC033	Island	2.1	Existing shared	

Ref	Crossing type	Level	Gateway	Comments
CC034	Island	2.1	Existing shared	
CC035	Island	2.1	Existing shared	
CC036	Puffin	2	Existing pedestrian	
CC037	Toucan	2.1	Existing shared	
CC038	Pelican	2	Existing pedestrian & potential shared	
CC039	Refuge	3		Narrow
CC040	Refuge	3	Potential shared	Narrow & no tactile
CC041	Refuge	3		Narrow & no tactile
CC042	Refuge	3		Narrow
CC043	Puffin	2	Existing pedestrian & potential shared	
CC044	Refuge	3		Steps on east side render this redundant for other than access to bus stop
CC045	Toucan	2.1	Existing shared	
CC046	Island	3		Alignment of dropped kerbs is terrible to accommodate hazardous cycle give way & just puts everyone at more risk
CC047	Island	3		Only access from east side of St Pauls Road to centre of gyratory. Angle of crossing awful & signs in island obstruct badly
CC048	Island	3		No tactile & no proper dropped kerb on south side where pedestrians are pitched into a bus stop
CC049	Island	2		Not great
CC050	Subway	0.5	Existing pedestrian & potential shared	
CC051	Reservation	3		Two lanes of fast approaching traffic. No tactile
CC052	Island	2		No tactile
CC053	Island	3		Poor sightlines on south side
CC054	Toucan	2.1	Existing shared	
CC055	3 way island	2		No tactile on north/south arm
CC056	3 way island	2		No tactile
CC057	Puffin	2		
CC058	Puffin	2		
CC059	3 way island	2		No tactile
CC060	Puffin	2	Existing pedestrian & potential shared	
CC061	Refuge	3		Narrow & no tactile
CC062	Puffin	2	Existing pedestrian & potential shared	
CC063	Refuge	3		Narrow & no tactile
CC064	Pelican	2	Existing pedestrian & potential shared	
CC065	Island	3		Wide fast approaches
CC066	Island	3		Wide fast approaches
CC067	Island	3		Wide fast approaches

Ref	Crossing type	Level	Gateway	Comments
CC068	Island	3		Wide fast approaches
CC069	Pelican	2		
CC070	Refuge	3		Narrow & no tactile
CC071	Refuge	3		Narrow & no tactile
CC072	Refuge	3		Narrow
CC073	Refuge	3		Narrow
CC074	Toucan	2.1	Existing shared	
CC075	Puffin	2	Potential shared	Potential only if changed & moved to desire line by junction
CC076	Raised junction	3	Potential shared	
CC077	Raised table	3		
CC078	Raised junction	3	Potential shared	
CC079	Raised junction	3	Potential shared	
CC080	Raised junction	3	Potential shared	
CC081	Raised table with build out	3	Potential shared	
CC082	Raised table with build out	3		
CC083	Raised table with build out	3	Potential shared	
CC084	Raised table with build out	3	Potential shared	
CC085	Footbridge	0	Potential shared	Steps only
CC086	Footbridge	0	Potential shared	Steps only
CC087	Footbridge	0.5	Existing pedestrian & potential shared	
CC088	Raised table with build out	3		
CC089	Raised table with build out	3		
CC090	3 way pelican with island	2	Existing pedestrian & potential shared	
CC091	Puffin with reservation	3	Existing pedestrian & potential shared	
CC092	Cycle gaps	3.1	Potential cycle	Awful
CC093	Toucan	2.1	Existing shared	
CC094	Island	3		To/from island. Poor sightlines. Should be signals
CC095	Puffin with island	2	Existing pedestrian & potential shared	Staggered
CC096	Toucan	2.1	Existing shared	
CC097	Refuge	3		Narrow & no tactile
CC098	Puffin	2		
CC099	Raised junction	3	Potential shared	
CC100	Raised table	3		
CC101	Footbridge	1	Existing shared	Railway, Westgate
CC102	Subway	1	Existing shared	A27, Fishbourne
CC103	Bridge	1	Existing shared	
CC104	Subway	1	Existing shared	Centurion Way, Lavant

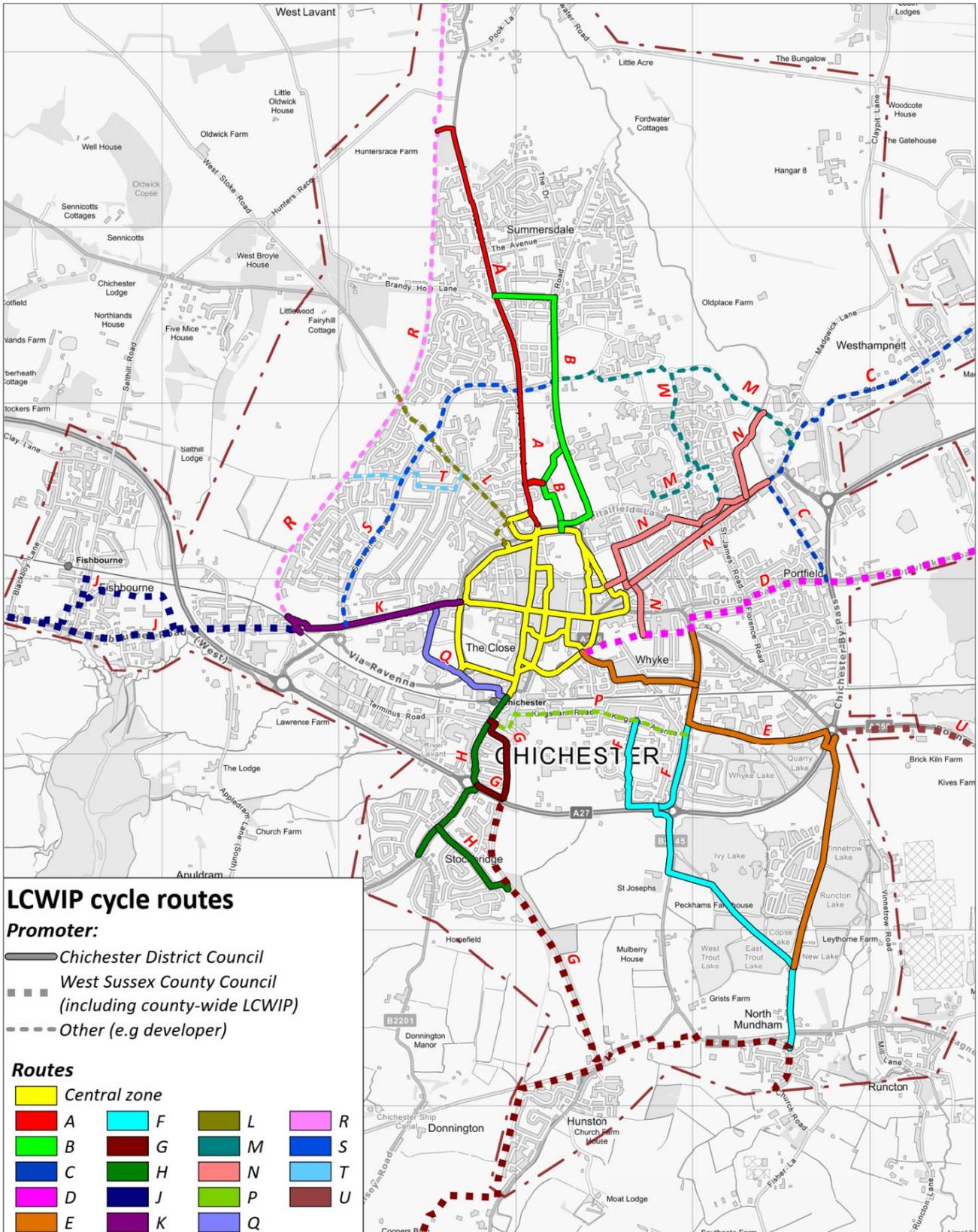
Ref	Crossing type	Level	Gateway	Comments
CC105	Subway	1	Existing shared	
CC106	Puffin	2	Existing pedestrian & potential shared	
CC107	Footbridge	0	Potential shared	Steps only
CC108	Island	3	Potential shared	Tapers narrow & wide approaches. No tactile
CC109	Island	3	Potential shared	Tapers to narrow & wide approaches. No tactile
CC110	Island	3	Potential shared	Wide fast approaches & no tactile
CC111	Reservation	3		Wide fast approaches & no tactile
CC112	Reservation	3		Wide fast approaches & no tactile
CC113	Toucan	2.1	Existing shared	
CC114	Island	3		Narrow & no tactile
CC115	Island	2.1	Existing shared	
CC116	Island	3	Potential shared	Narrow & no tactile
CC117	Island	3	Potential shared	Narrow & no tactile
CC118	Puffin	2	Existing pedestrian & potential shared	
CC119	Puffin	2	Existing pedestrian & potential shared	Not quite on desire line
CC120	Semi raised junction	3	Potential shared	Only raised & not much on one side
CC121	Island	3	Potential shared	Two lane fast approaches. No tactile
CC122	Pedestrian phase with refuge	2		No tactile in refuge
CC120	Pedestrian phase	2		

Only 43% of crossings are Level 1 or 2 (including cycle crossings). This is very low compared to other areas studied in the UK.

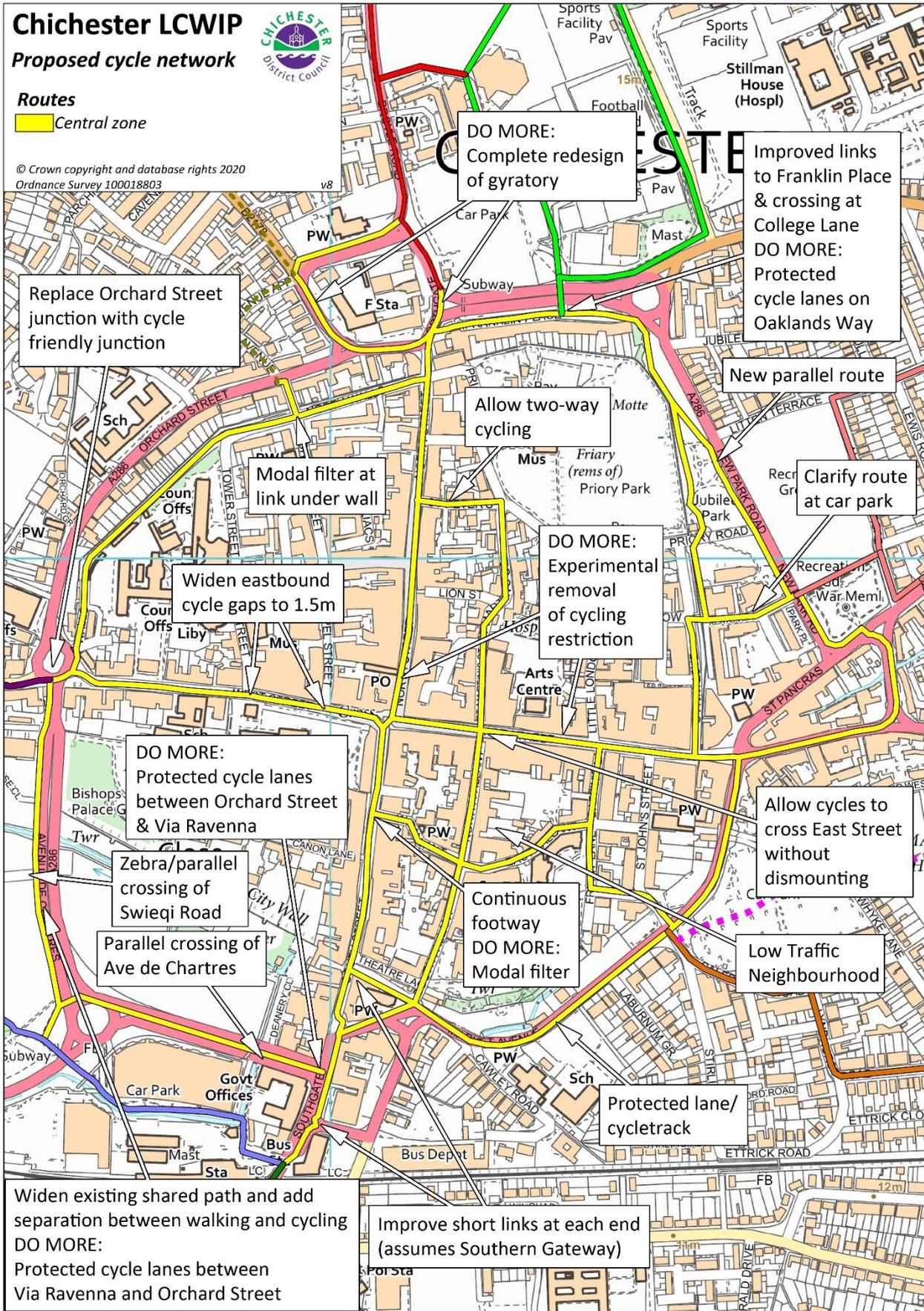
3. Route proposals & assessments

The plans below show the proposed interventions for the routes to be promoted by CDC. The Route Selection Tool (RST) assessment is also shown for these routes, apart from the core area where there are individual links rather than longer defined routes.

Plan 10. Proposed cycle routes

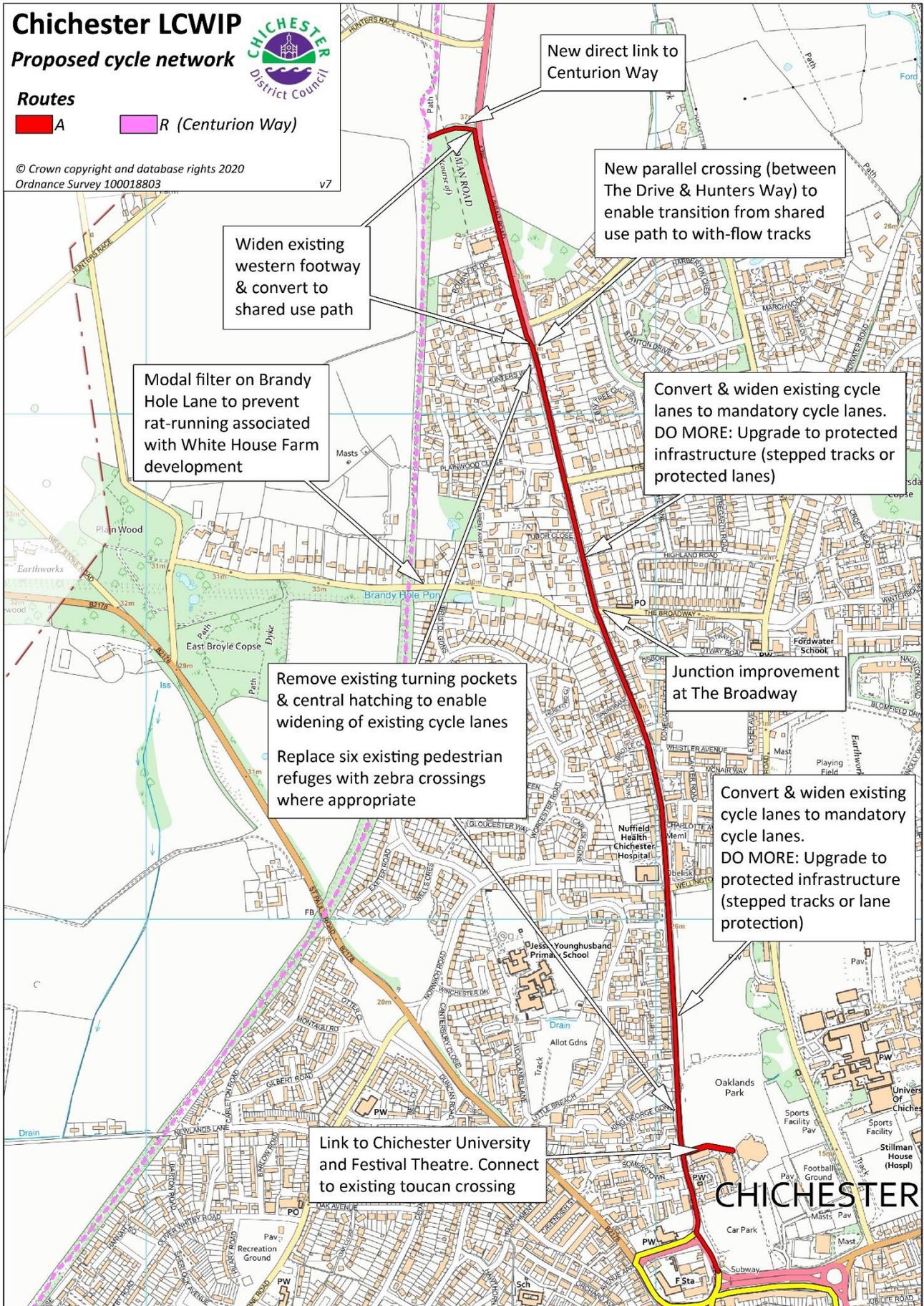


Plan 11. Proposed interventions in core area



Route A - Lavant

Plan 12. Proposed interventions - Route A

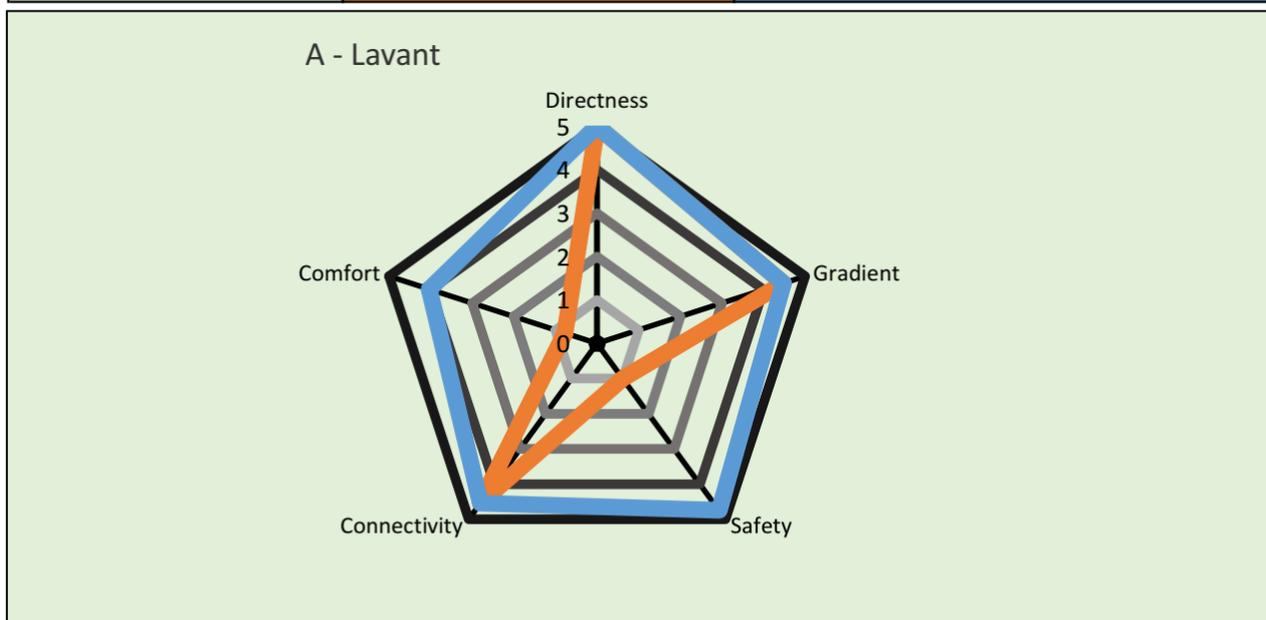


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	A - Lavant
Overall Length	2.4km
Name of Assessor(s)	Justin Yim
Date of Assessment	Updated 18/02/2019

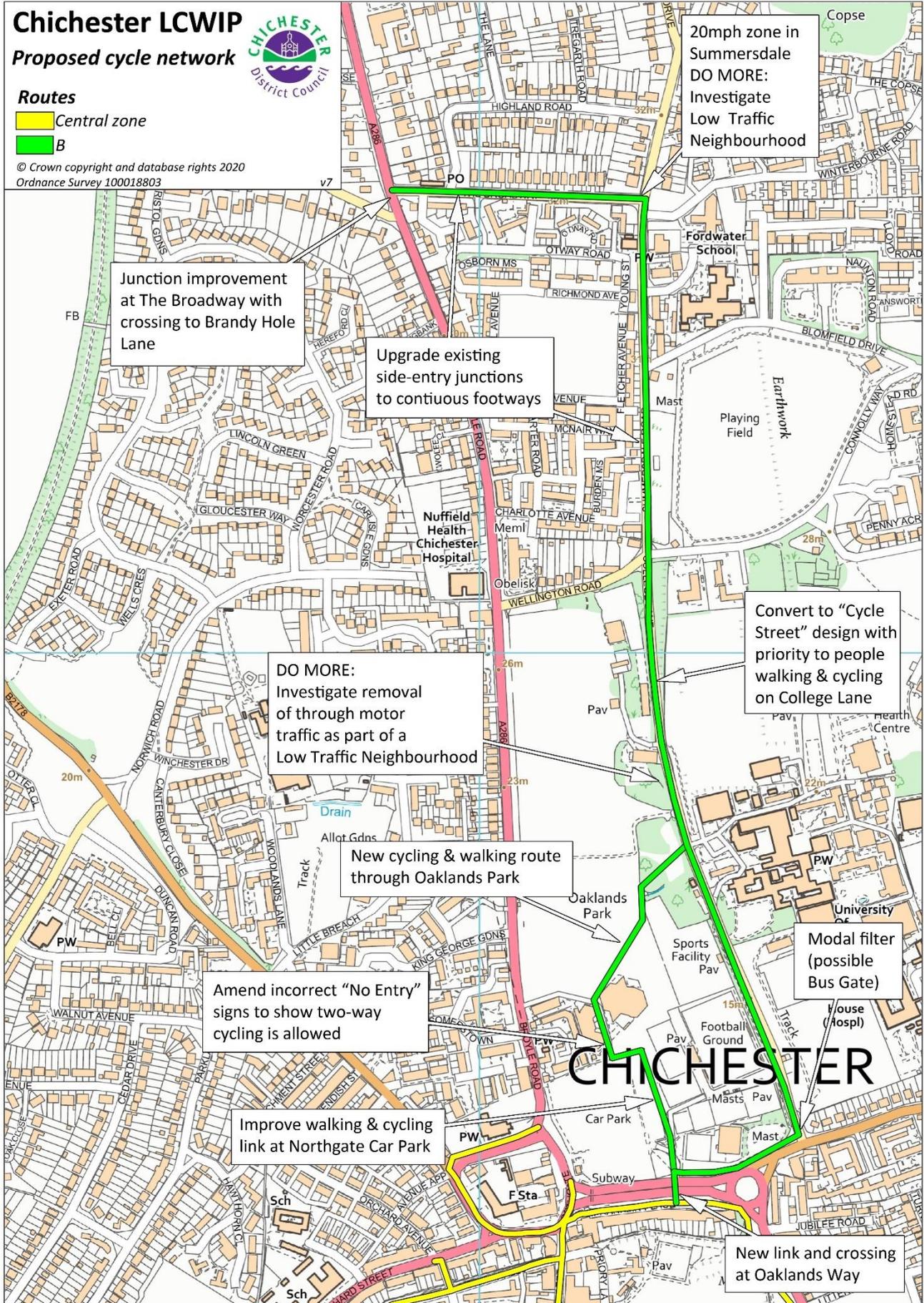
Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	4.48	4.48
Safety	0.99	4.74
Connectivity	4.54	4.54
Comfort	0.78	4.04



Number of Existing Critical Junctions/Crossings	6
Number of Potential Critical Junctions/Crossings	1
Description of Improvements	Introduction of new segregated facilities along Lavant Road and new section of shared use path introduced at northern end to connect with Centurion Way
Indicative Cost	£750,000 - £2,000,000

Route B - University

Plan 13. Proposed interventions - Route B

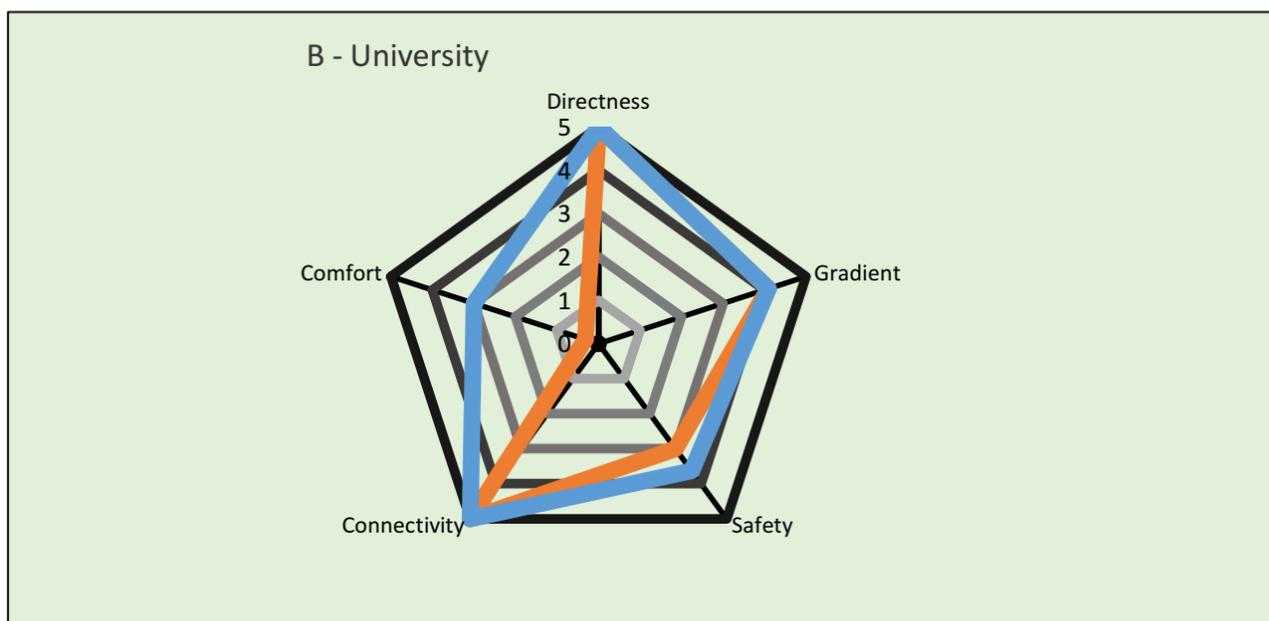


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	B - University
Overall Length	1.54km
Name of Assessor(s)	Justin Yim
Date of Assessment	17 December 2019

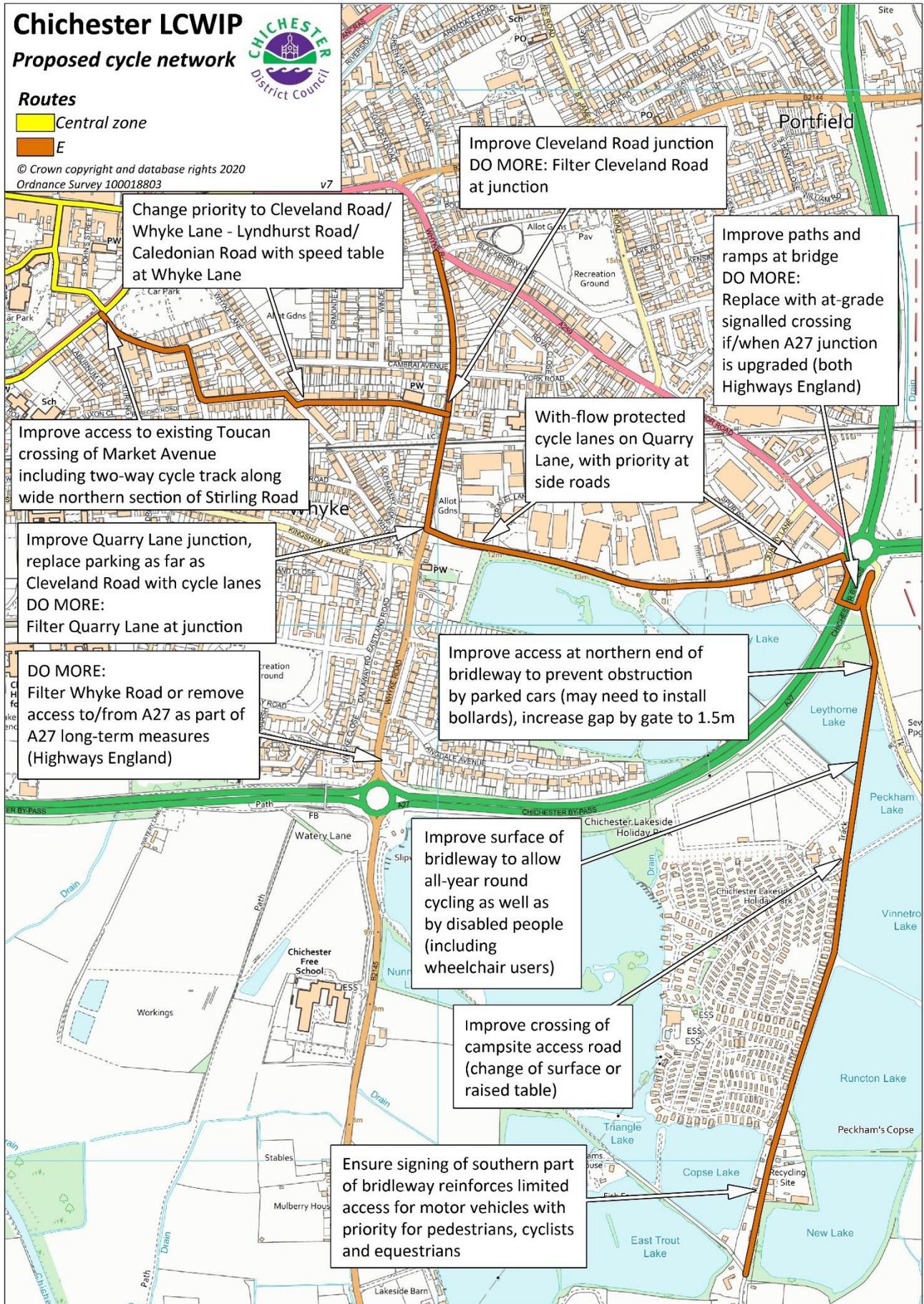
Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	4.09	4.09
Safety	3.00	3.63
Connectivity	5.00	5.00
Comfort	0.32	3.00



Number of Existing Critical Junctions/Crossings	5
Number of Potential Critical Junctions/Crossings	2
Description of Improvements	Cycle street proposals on College Lane and local junction improvements on the Broadway
Indicative Cost	£172,000 - £872,000

Route E - Vinnetrow

Plan 14. Proposed interventions - Route E

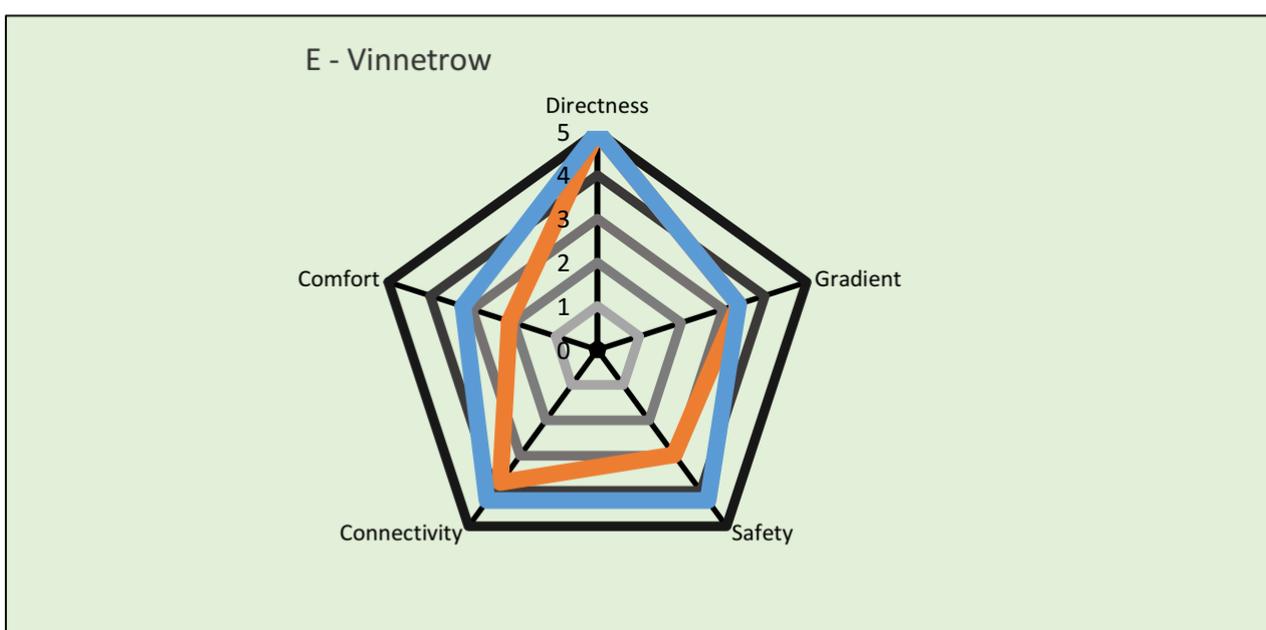


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	E - Vinnetrow
Overall Length	3.6km
Name of Assessor(s)	Justin Yim
Date of Assessment	Updated 19/02/2020

Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	3.37	3.37
Safety	2.97	4.27
Connectivity	3.76	4.27
Comfort	2.11	3.21

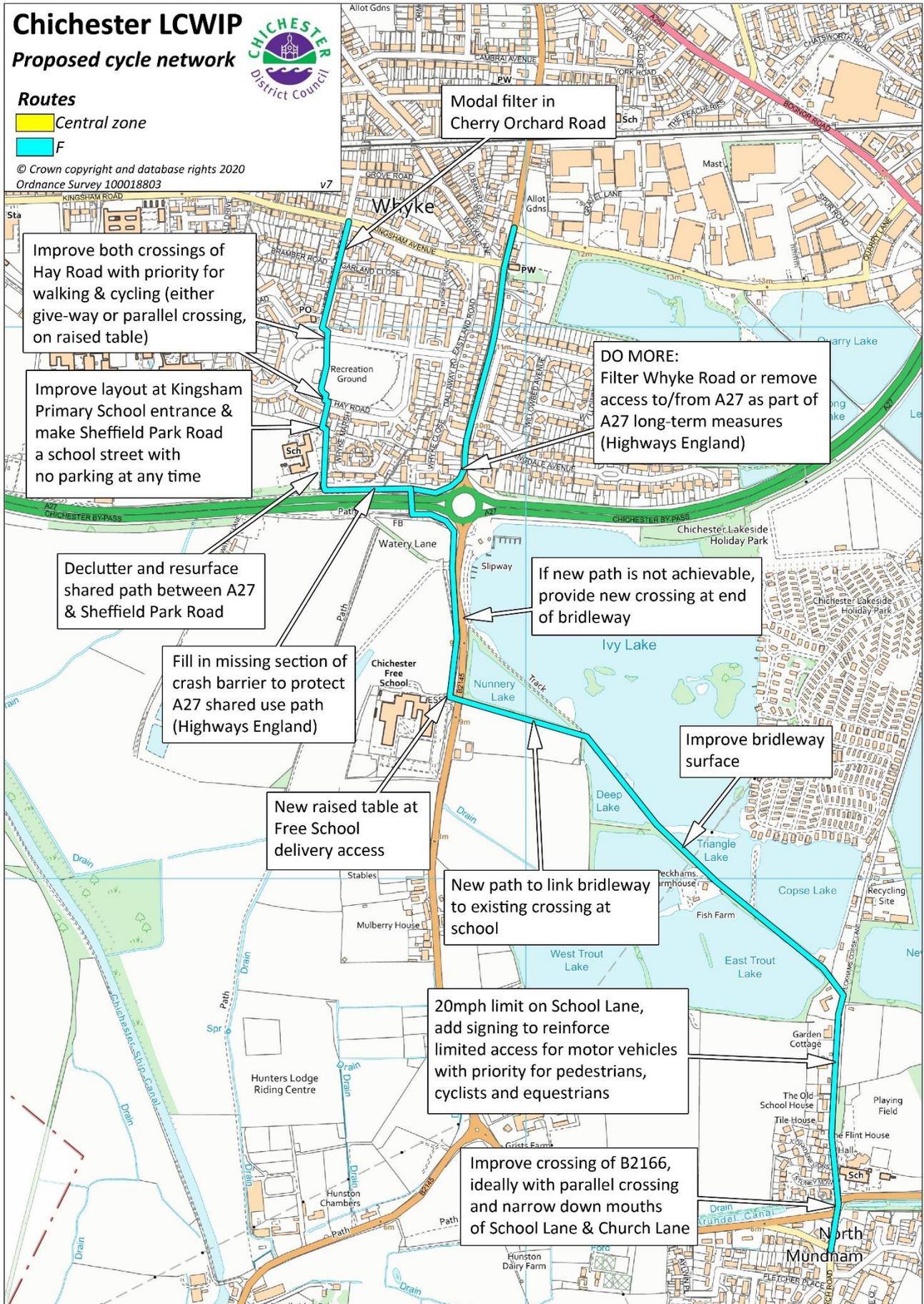


Number of Existing Critical Junctions/Crossings	14
Number of Potential Critical Junctions/Crossings	6

Description of Improvements	New protected facilities for cycling especially on Quarry Lane and upgrades to local existing facilities where necessary
Indicative Cost	£1,193,000 - £1,318,000

Route F - North Mundham

Plan 15. Proposed interventions - Route F

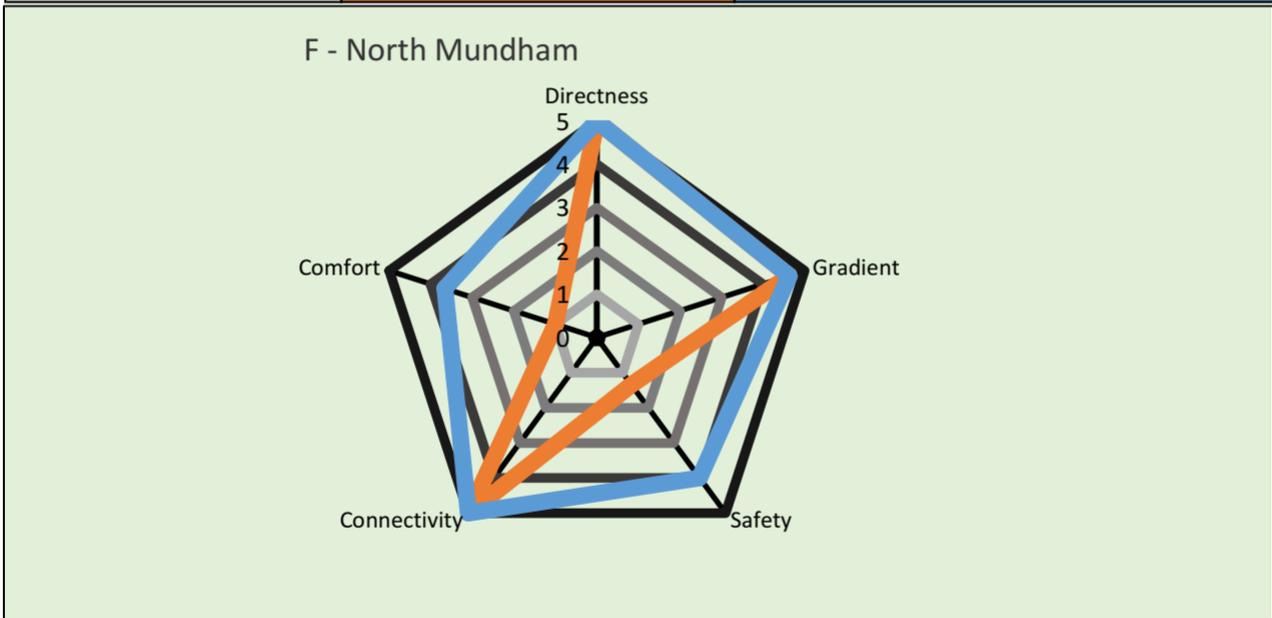


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	F - North Mundham
Overall Length	2.5km
Name of Assessor(s)	Justin Yim
Date of Assessment	18 December 2019

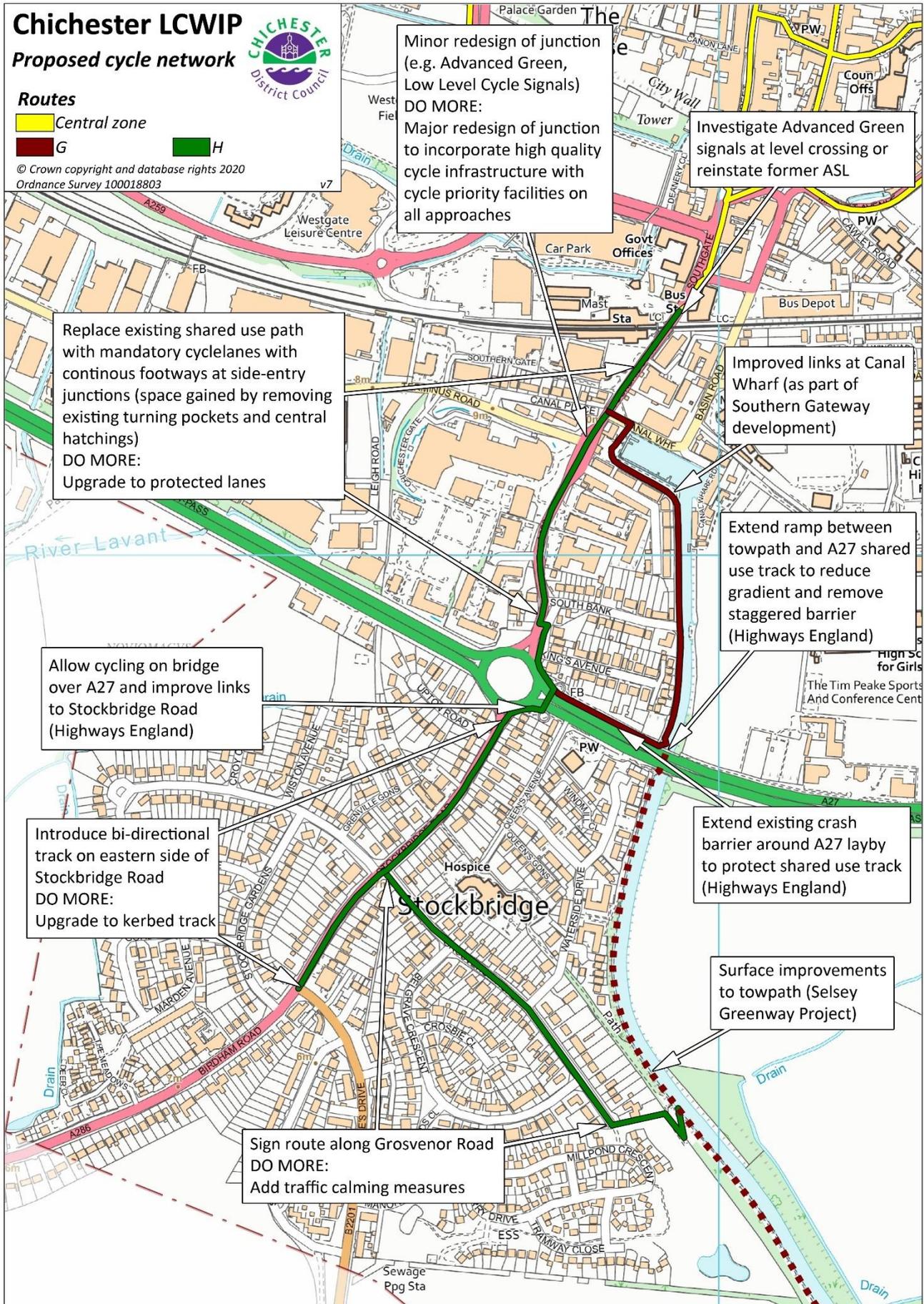
Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	4.63	4.63
Safety	1.34	4.00
Connectivity	5.00	5.00
Comfort	1.00	3.66



Number of Existing Critical Junctions/Crossings	6
Number of Potential Critical Junctions/Crossings	0
Description of Improvements	<p>Removal of through traffic, filtered permeability & improvements in Whyke and by the Free School.</p> <p>Improved surface on path to North Mundham</p>
Indicative Cost	£300,000 - £505,000

Routes G - Chichester Canal & H - Stockbridge

Plan 16. Proposed interventions - Routes G & H

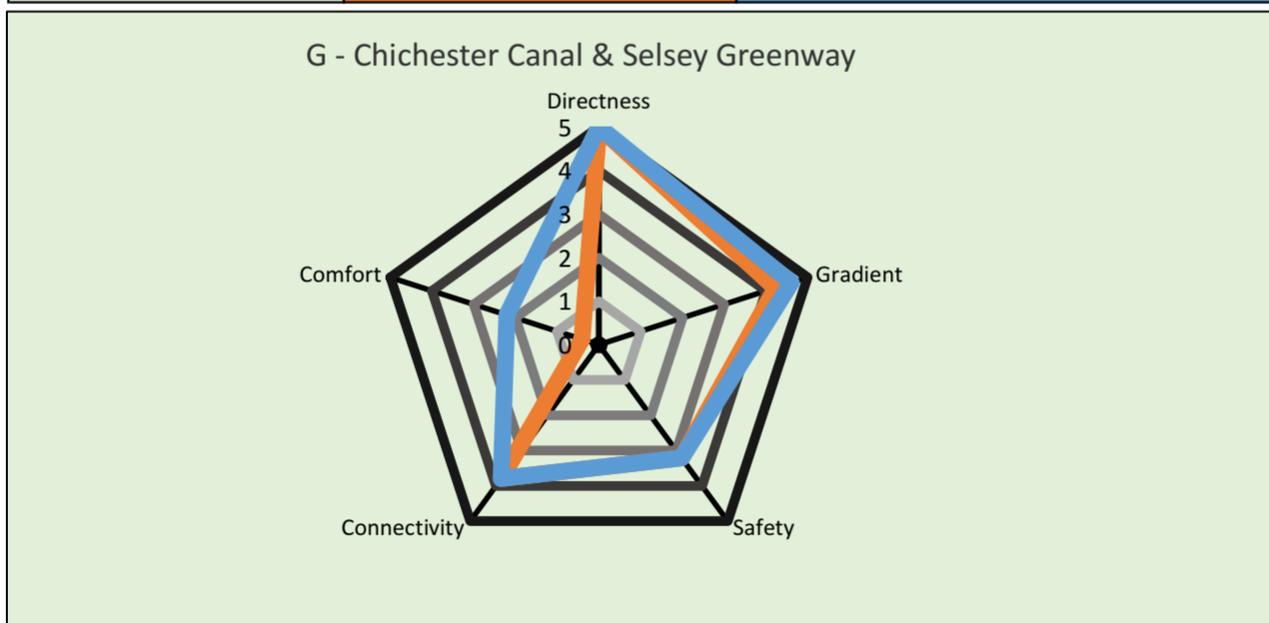


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	G - Chichester Canal & Selsey Greenway
Overall Length	4.9km
Name of Assessor(s)	Justin Yim
Date of Assessment	17 December 2019

Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	4.23	4.61
Safety	3.20	3.20
Connectivity	3.80	3.80
Comfort	0.41	2.20



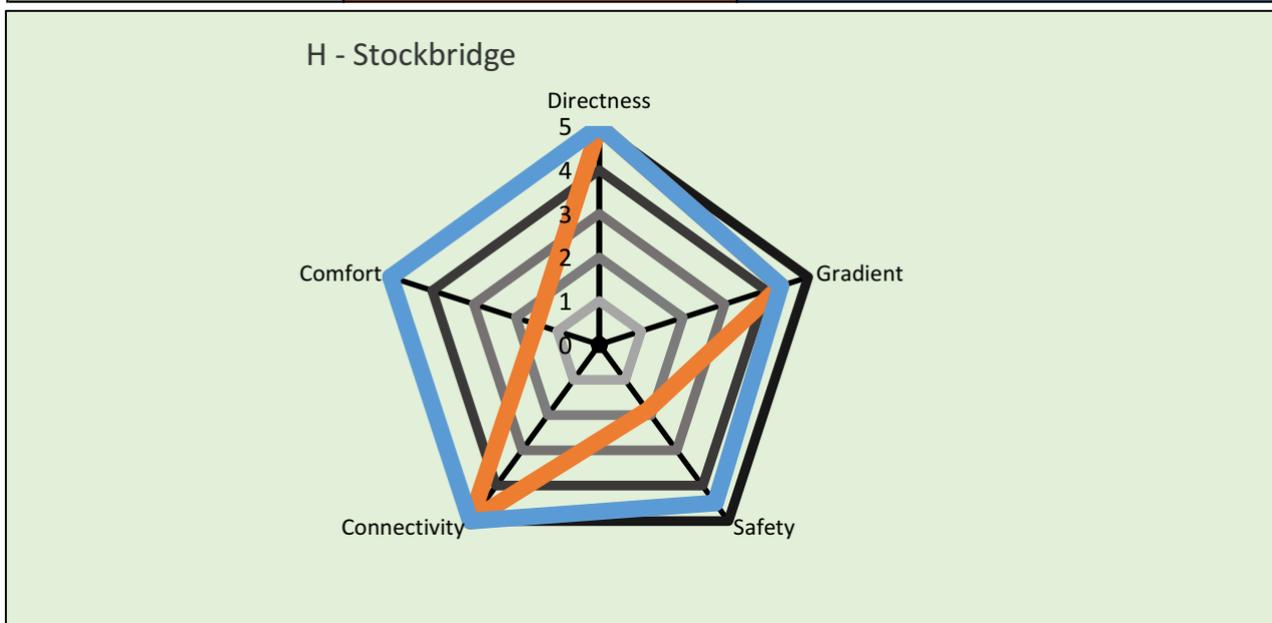
Number of Existing Critical Junctions/Crossings	0
Number of Potential Critical Junctions/Crossings	0
Description of Improvements	Improved surfacing and access between canal towpath and A27 Better links at Basin Road
Indicative Cost	£141,000 - £241,000 (northern section only)

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	H - Stockbridge
Overall Length	1.1km
Name of Assessor(s)	Justin Yim
Date of Assessment	18 December 2019

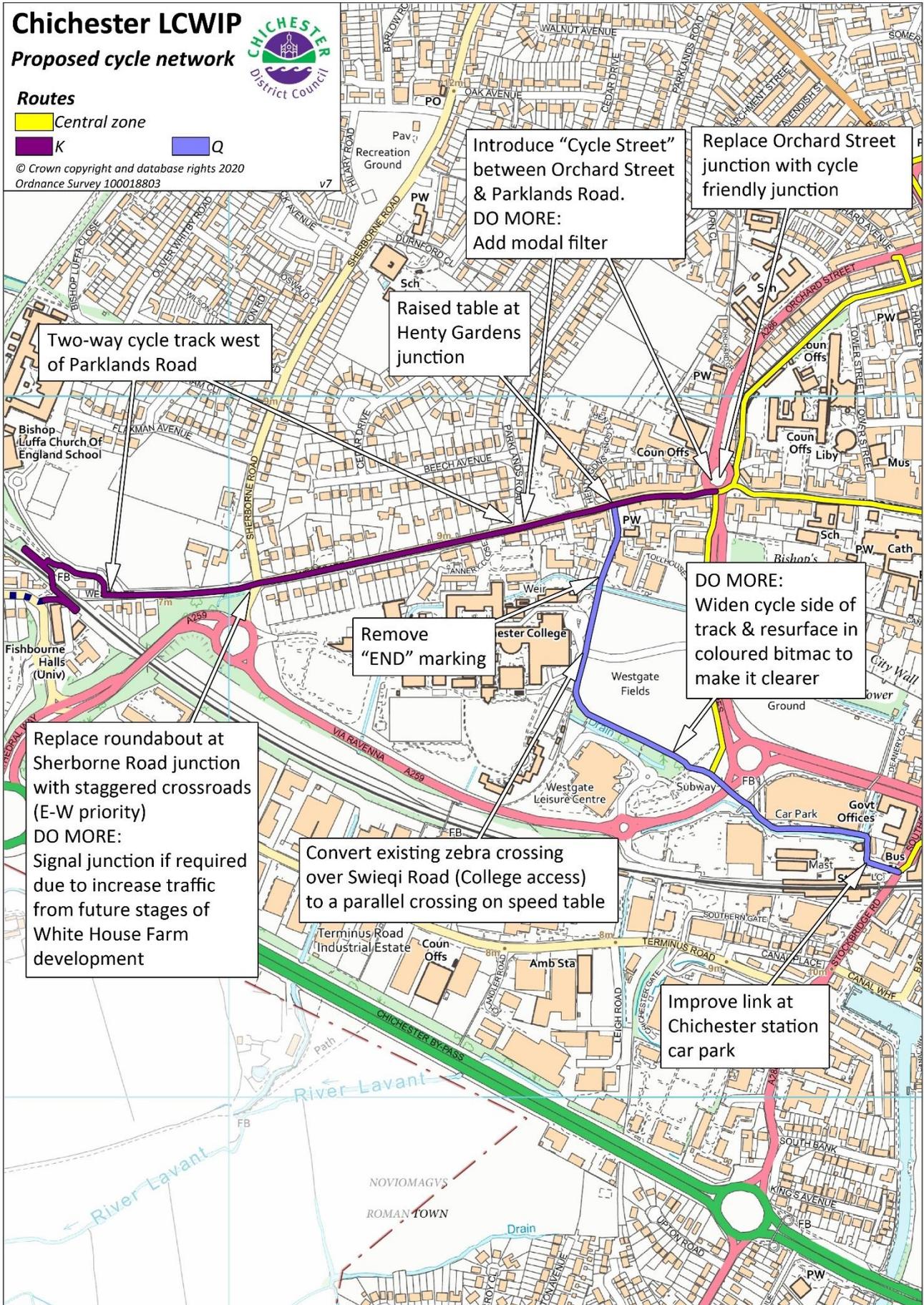
Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	4.34	4.34
Safety	1.86	4.49
Connectivity	5.00	5.00
Comfort	1.51	5.00



Number of Existing Critical Junctions/Crossings	12
Number of Potential Critical Junctions/Crossings	1
Description of Improvements	<p>Remove existing shared use path and replace with mandatory cycle lanes in both directions with conversion of all existing side-entry junctions along the route to continuous footway provision. Remove existing turning pockets and central hatchings.</p> <p>Upgrade junction of Stockbridge Road/Terminus Road to incorporate proposed cycle tracks/lanes, include cycle priority facilities on all approaches and introduce pedestrian crossing facilities on all arms.</p>
Indicative Cost	£818,000 - £1,888,000

Routes K - Westgate & Q - College

Plan 17. Proposed interventions - Routes K & Q

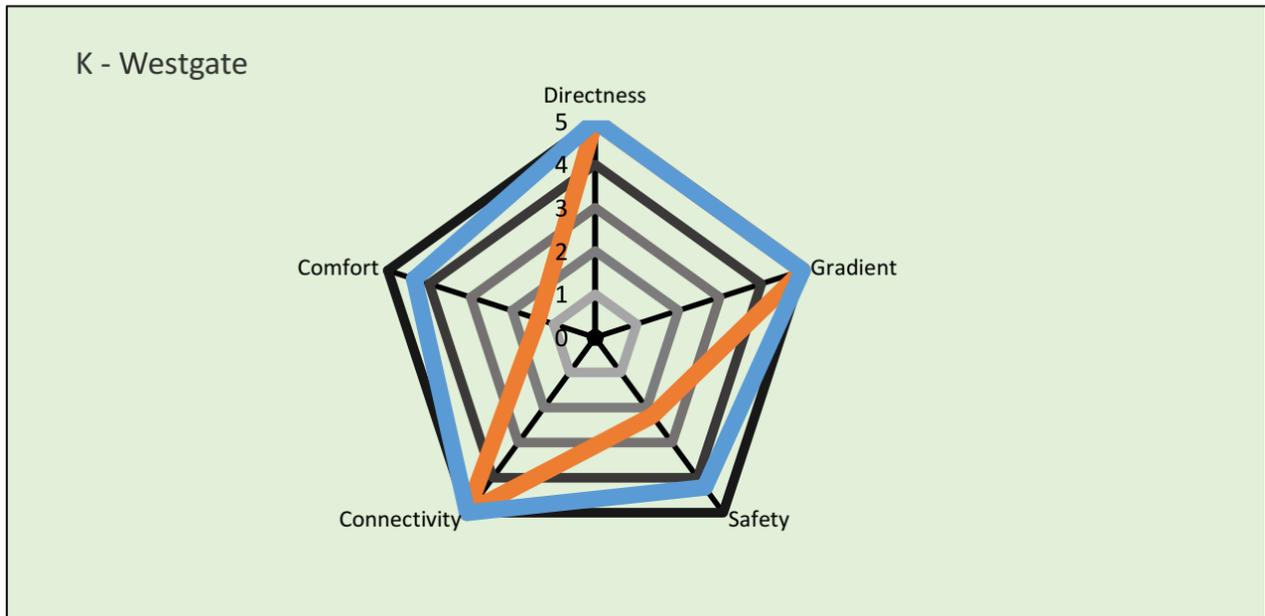


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	K - Westgate
Overall Length	1.2km
Name of Assessor(s)	Steve Essex
Date of Assessment	16 June 2020

Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	5.00	5.00
Safety	2.23	4.27
Connectivity	5.00	5.00
Comfort	1.37	4.36



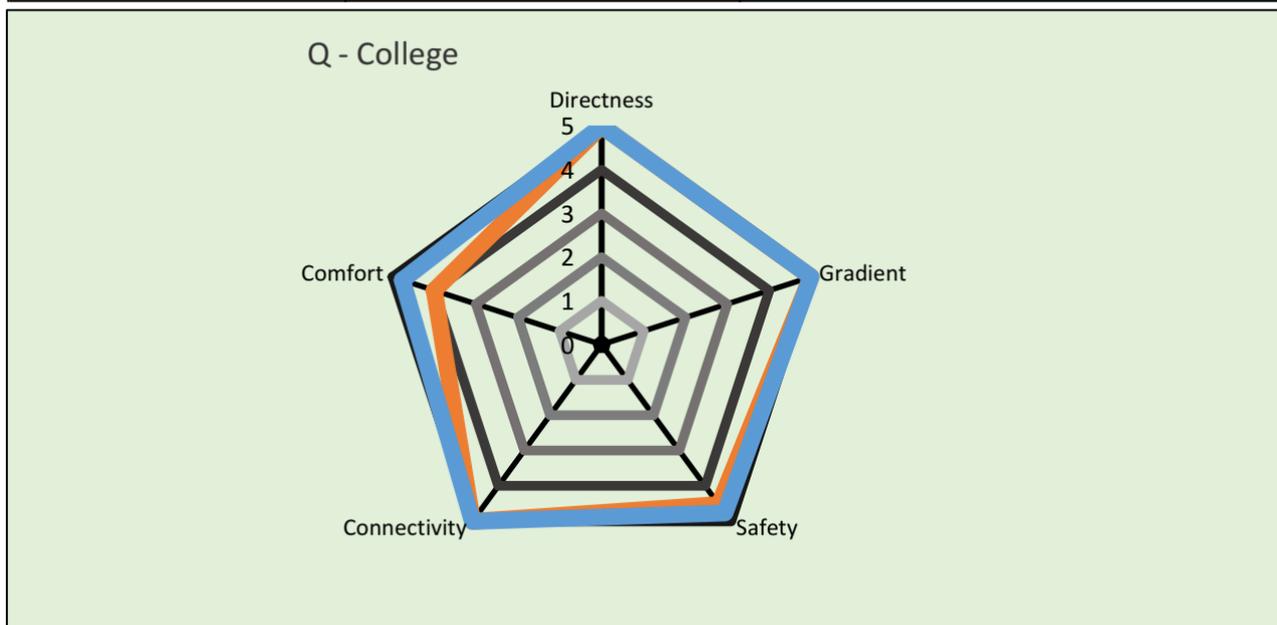
Number of Existing Critical Junctions/Crossings	2
Number of Potential Critical Junctions/Crossings	0
Description of Improvements	Options of traffic calming, light segregated cycle facilities or 2 way track between Orchard Street & Sherborne Rd, with 2 way track to west. Replace Sherborne Rd roundabout with safer junction.
Indicative Cost	£510,000 - £790,000

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	Q - College
Overall Length	0.8km
Name of Assessor(s)	Justin Yim
Date of Assessment	12 December 2019

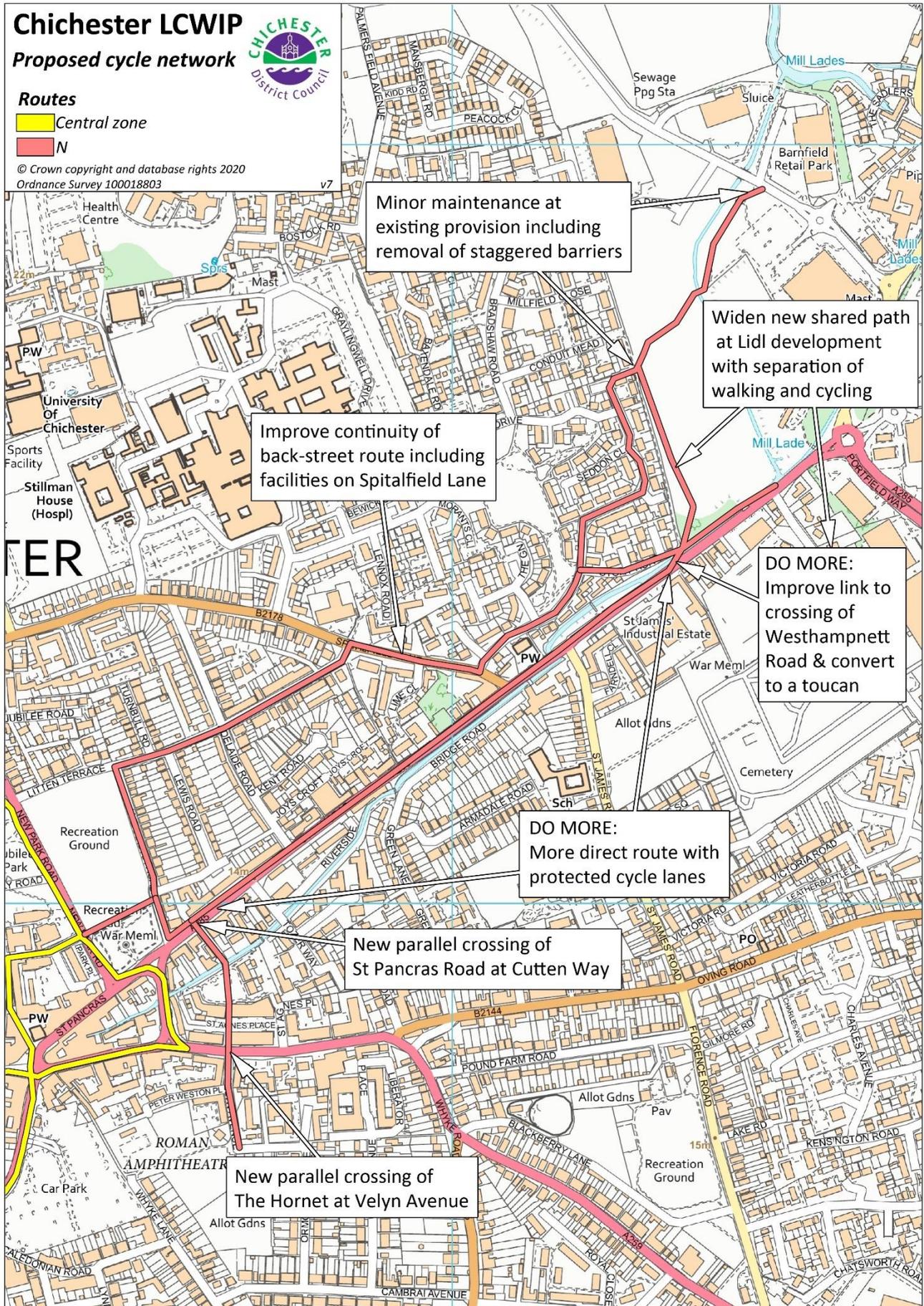
Criterion	Performance Scores	
	Existing	Potential
Directness	5.00	5.00
Gradient	5.00	5.00
Safety	4.53	4.76
Connectivity	5.00	5.00
Comfort	4.00	4.76



Number of Existing Critical Junctions/Crossings	0
Number of Potential Critical Junctions/Crossings	0
Description of Improvements	Improved crossing of Swieqi Road (Chichester College access road) to maintain cycle and pedestrian priority Improved links at Chichester station
Indicative Cost	£80,000 - £150,000

Route N – St Pancras

Plan 18. Proposed interventions – Route N

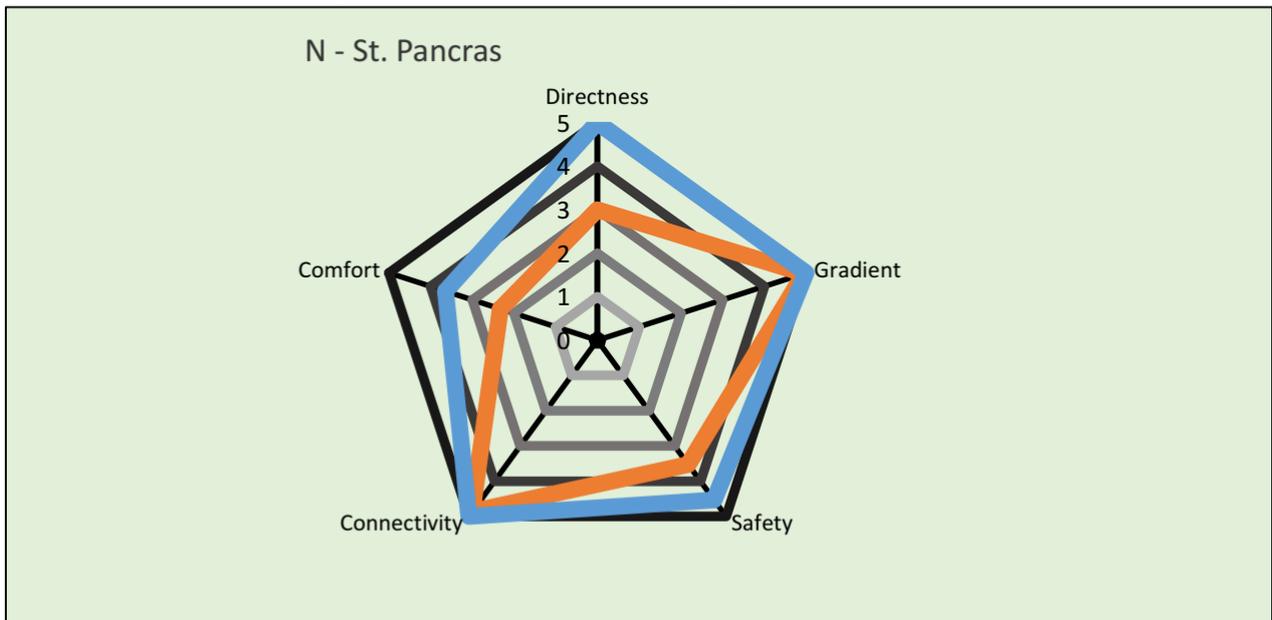


Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	N - St. Pancras
Overall Length	1.6km
Name of Assessor(s)	Justin Yim
Date of Assessment	12 December 2019

Criterion	Performance Scores	
	Existing	Potential
Directness	3.00	5.00
Gradient	4.95	5.00
Safety	3.53	4.54
Connectivity	4.86	5.00
Comfort	2.33	3.64



Number of Existing Critical Junctions/Crossings	9
Number of Potential Critical Junctions/Crossings	0
Description of Improvements	Introduce protected cycle facilities on St. Pancras Road with link to hospital
Indicative Cost	£149,000 - £703,000

Chichester City Local Cycling and Walking Infrastructure Plan

Appendix 3:

List of consultees invited to previous CDC consultation workshops:

Internal:

Planning Policy and Development Management

External:

CDC Members with relevant portfolio or ward
West Sussex County Council
Chichester Business Improvement District
Chichester City Council
Parish Councils within or abutting the study area
South Downs National Park Authority
St Richard's Hospital
Chichester University
Chichester College
Chichester and District Cycle Forum
Residents' Associations within or abutting the study area
A2 Dominion
Age UK
Chichester Women's Institute
Chichester Canal Trust
Chichester Access Group

Chichester Local Cycling and Walking Infrastructure Plan

Appendix 4:

List of proposed consultees:

Internal

Development Management and Building Control
Planning Policy
Chief Executive

External

DfT
West Sussex County Council
Chichester City Council
CDC Members
WSSCC Members (with specific portfolio; Highways and Infrastructure, Environment and Member Cycling Champion)
South Downs National Park Authority
Selected parish councils (Lavant, North Mundham, Apuldram, Fishbourne, Oving, Westhampnett, Oving, Westhampnett, Hunston, Boxgrove)
Chichester Business Improvement District
South Downs National Park Authority
Chichester Chamber of Commerce
Sustrans
Chichester and District Cycle Forum
Chichester Walking Access Group
Southern Gateway Project Team
Chichester Canal Trust
Residents' Associations (Parklands, Westgate, Westhampnett, Summersdale, East Broyle)
Friends of Centurion Way
A2 Dominion
Age UK
Network Rail
Stagecoach
St Richard's Hospital
Chichester University
Chichester College
Highways England
Large employers (Wileys, Rolls Royce, Mercers)
All attendees of the previous Local Cycling and Walking Infrastructure Plan workshops