Bournemouth, Christchurch and Poole Council

Local Cycling and Walking Infrastructure Plan

Technical Report

Bournemouth, Christchurch and Poole Council

Local Cycling and Walking Infrastructure Plan

Technical Report

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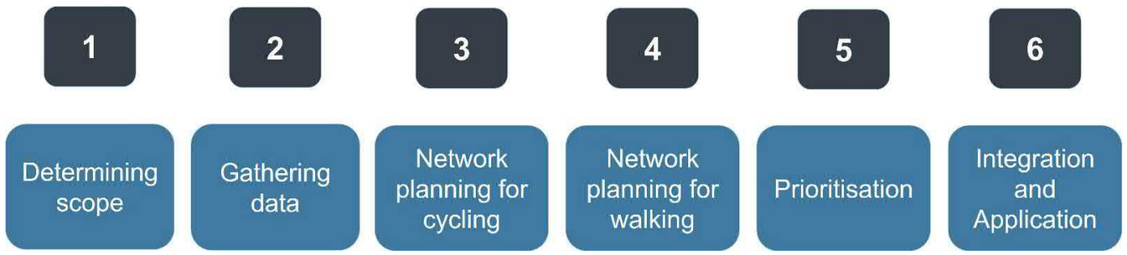
Executive summary

This document is the Technical Report which describes the methodology used to develop the Bournemouth, Christchurch and Poole (BCP) Local Cycling and Walking Infrastructure Plan (LCWIP).

The LCWIP was prepared in line with Department for Transport guidance set out in LCWIPs Technical Guidance for Local Authorities and supporting advice in Local Transport Note (LTN) 1/20 Cycle Infrastructure Design. The recommended six-stage process was followed, as illustrated in the figure below.



The key elements of LCWIPs are:

- Plans showing a proposed network of primary and secondary cycle routes;
- Plans showing proposed Core Walking Zones and Key Walking Routes serving them; and
- A prioritised programme of infrastructure improvements.

The preparation of an LCWIP is not mandatory. However, government has made it clear that local authorities must commit to LCWIPs, or equivalents, in order to qualify for funding.

The LCWIP does not provide a series of confirmed, funded or fully designed cycling and walking schemes but enables BCP Council to progress proposals and bid for money. BCP Council will consult on proposed schemes on by a case-by-case basis, giving local residents and businesses an opportunity to have their say.

The methodology followed and processes used to develop the LCWIP is summarised below.

Stage 1: Determining Scope

In Stage 1, the geographic scope, programme, and timescales for the LCWIP were agreed. The LCWIP covers the whole of the BCP authority area. Some trip origins/destinations are in neighbouring authorities, and therefore the LCWIP also considers movements to and from adjacent parts of Dorset and Hampshire authority areas.

The Technical Guidance suggests that LCWIPs should cover a 10-year period. The BCP LCWIP is intended to cover a 15-year period to 2036, due to the large number of schemes included in the LCWIP. The LCWIP will be subject to periodic updates to account for changes in circumstances and the progress of schemes.

The development of the LCWIP was informed by a period of public engagement in spring 2021 and public consultation in winter 2021. This, for example, led to the network plans being changed and the prioritisation approach being revised.

Stage 2: Gathering Information

Evidence and data were gathered to enable the development of the LCWIP, including:

- Current and proposed future important origins and destinations;
- Relevant transport investment;
- Existing cycling and walking network and existing travel patterns; and
- Existing transport issues to be addressed.

The information helped to:

- Develop the cycling and walking network plans;
- Inform the route audits which assess the current suitability of routes; and
- Inform the prioritised delivery plan.

Stage 3: Network Planning for Cycling

Different approaches were used to plan primary and secondary cycle networks for BCP. Both made use of data on origins, destinations, and potential future cycling demand (including data in the Propensity to Cycle Tool).

For the primary cycle network, a plan was prepared showing proposed cycle corridors between the most important origins and destinations. In line with the guidance, these were shown as straight lines for initial network planning purposes. These straight-line corridors were mapped to available routes. Routes which were being considered for transforming Cities Fund investment were prioritised for auditing. Using a combination of desk study and site visits, these audits assessed the current standard of routes for cycling and the broad improvements required.

The secondary cycle network is intended to complement and connect to the primary cycle network. The draft network was devised by using four strands of data: routes used by Beryl Bike Users; Propensity to Cycle Tool data; routes to serve destinations such as schools and routes recommended from an internal officer review.

Stage 4: Network Planning for Walking

In line with the LCWIPs Technical Guidance the BCP LCWIP identifies Core Walking Zones and Key Walking Routes. Core Walking Zones are defined as areas in which multiple walking trip generators are located close together. For this iteration of the LCWIP, two tiers of Core Walking Zones were identified. These were based on town centre and district centre designations, as well as the Adastral Square local centre, to give balanced coverage across the BCP area.

Key Walking Routes are defined as important pedestrian routes which serve the Core Walking Zone within a distance of approximately 2km. A network of Key Walking Routes was identified connecting surrounding major residential areas to the Tier 1 Core Walking Zones.

Routes which – at the time – were identified for possible Transforming Cities Fund investment, were audited to understand their current quality for walking and to identify required improvements. The audit findings fed into, and influenced, the design process undertaken for the corridors which secured funding from the Transforming Cities Fund for improvements.

Liveable Neighbourhood Analysis

Liveable Neighbourhoods are area-based solutions to create streets where most people feel safe and comfortable cycling and walking, due to low motor traffic speeds and flows. A two-stage process was used to identify fifteen areas that could have the greatest need for, or benefit most from, Liveable Neighbourhood measures.

Stage 5: Prioritising Improvements and Delivery Plan

A prioritisation process was undertaken to consider which interventions should form a short, medium, and long-term investment programme. All primary cycle route corridors were ranked by assessing them against a range of criteria, including the likely scale of beneficial impact and how deliverable the required schemes would be. Route sections prioritised for early implementation were those which are strategically important and/or are more easily deliverable. Delivery Plan tables set out an indicative programme of schemes.

Analysis was undertaken in parallel to identify suitable locations for localised improvements to support more walking and help deliver secondary cycle routes. This identified where new or improved crossings could be most beneficial, and which schools had the greatest scope to replace school run car travel with cycling and walking journeys. This information was provided to BCP Council officers for them to review and develop a Delivery Plan for local (non-strategic) improvements.

Stage 6: Integration and Application

The LCWIP will make the case for, and help to secure, future funding for cycling and walking infrastructure in the BCP area. The LCWIP will also be referenced and/or incorporated into other Council policies and strategies. The LCWIP will be periodically reviewed and updated to reflect any relevant local changes such as new polices, funding and developments. Updates will take account of progress in delivering proposals identified in the LCWIP Delivery Plan.

1 Introduction

1.1 Background

1.1.1. Local Cycling and Walking Infrastructure Plans (LCWIPs) are a strategic long-term approach to identifying cycling and walking improvements required at a local level. They were first outlined in the Department for Transport's (DfT) Cycling and Walking Investment Strategy (2017) and are also supported by government guidance to local authorities set out in Local Transport Note (LTN) 1/20 Cycle Infrastructure Design. They are viewed as an important means of achieving the DfT's vision to increase the number of trips made on foot or by cycle, most recently outlined in government's 2020 strategy entitled Gear Change: A bold vision for cycling and walking.

1.1.2. Bournemouth, Christchurch and Poole Council (BCP Council) commissioned WSP to assist in the preparation of an LCWIP for the authority, providing advice and technical support. This Technical Report describes the methodology followed and tools used to produce the LCWIP.

1.1.3. The key outputs of LCWIPs are:

- Network plans for cycling and walking which identify preferred routes and core zones for further development;
- A prioritised programme of infrastructure improvements for future investment; and
- A report which sets out the underlying analysis carried out and provides a narrative supporting the identified improvements and networks (this Technical Report).

1.1.4. By taking a strategic approach to improving conditions for cycling and walking, LCWIPs assist local authorities to:

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

1.1.5. The preparation of LCWIPs is not mandatory. However, government active travel funding announcements in 2021 indicated that local authorities must commit to LCWIPs, or equivalents, in order to qualify for funding.

2 Stage 1: Determining Scope

2.1 Geographical Scope

2.1.1. The LCWIP covers the whole of the BCP authority area. As some significant trip origins and destinations are located in neighbouring authorities, the LCWIP also considers movements to and from adjacent parts of the Dorset and Hampshire authority areas. This is discussed further in Chapter 3.

2.2 LCWIP Scope

2.2.1. The BCP LCWIP was developed with reference to LCWIPs Technical Guidance for Local Authorities (hereafter referred to as the Technical Guidance). This identifies a six-stage process as shown in Figure 2.1. It has also made reference to guidance in LTN 1/20, which was published during the development of the BCP LCWIP.

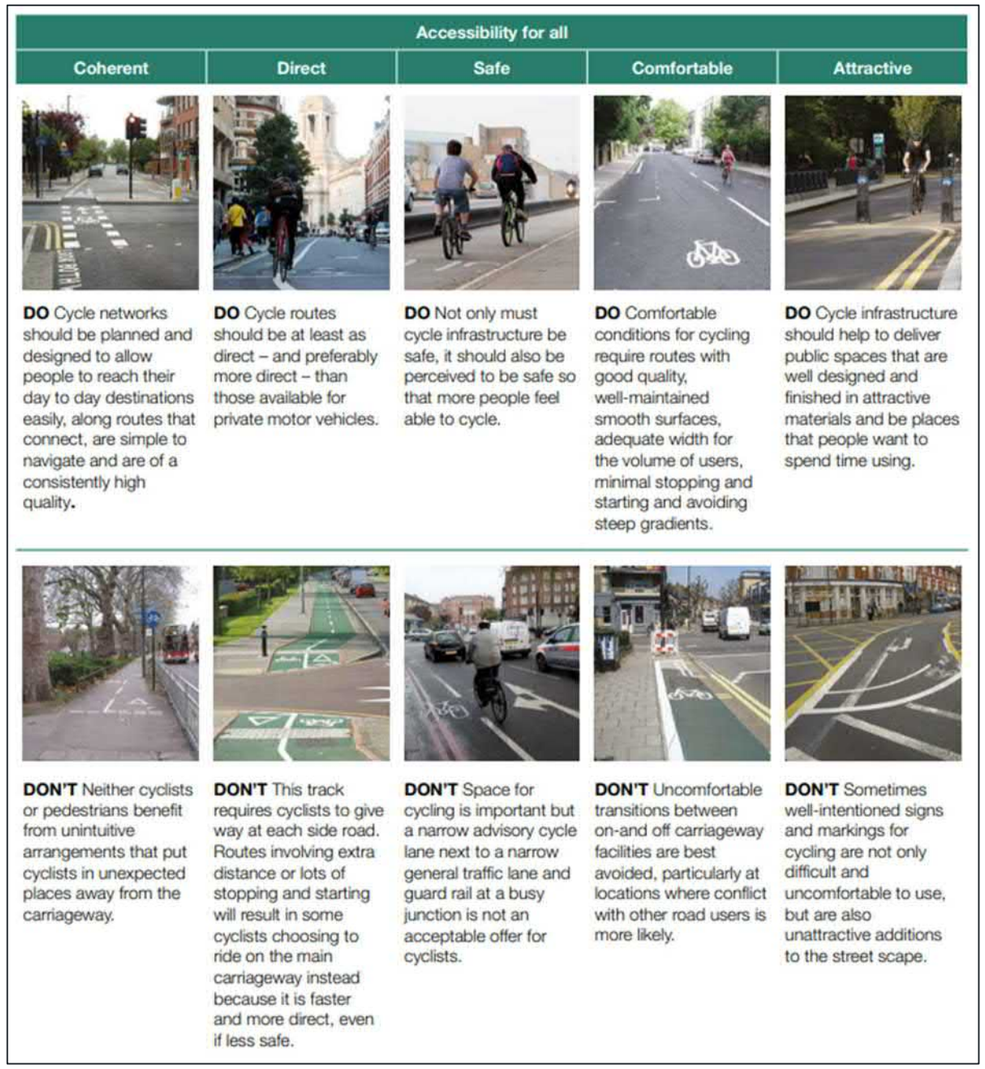
Figure 2.1 - LCWIP Process

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

2.2.2. The Technical Guidance outlines a largely route-based approach to developing cycling and walking networks. Alongside guidance on route-based network planning, LTN 1/20 also states that "an area-based approach, linking areas of low traffic volume with facilities and crossings on busier streets, can be an effective way to build up and link together cycle-friendly neighbourhoods". The BCP LCWIP was therefore expanded to review the potential for applying these area-based approaches (see Chapter 7).

2.2.3. LTN 1/20 outlines five core design principles as shown in Figure 2.2.

Figure 2.2 – LTN 1/20 Core design principles



2.2.4. Three DfT-recommended tools were used to inform the LCWIP, as follows:

- The Propensity to Cycle Tool (PCT): a website analysis tool which forecasts the potential future growth of cycle trips for travel to work and travel to school under different scenarios, based on national datasets which are available for these journey purposes. The scenarios are based on journey to work data from the 2011 Census and 2011 School Census data respectively. It should be noted that an equivalent scenario planning tool is not available to forecast future walking trips;
- The Route Selection Tool (RST), which assesses and compares the suitability of different routes for inclusion in a cycle network; and
- The Walking Route Audit Tool (WRAT), for auditing the existing condition of walking routes.

2.2.5. In the context of the LCWIP Technical Report, and in line with the definitions and guidance in LTN 1/20:

- References to "**cycling**" includes the use of bicycles, electric power-assisted cycles (e-bikes), hand cycles and other adapted cycles for disabled people. It also includes bikes with trailers, cargo bikes, recumbents, tandems and tricycles.
- References to "**walking**" includes the use of wheelchairs, mobility scooters or other mobility aids designed for use on footways.

2.2.6. Where both modes are referenced in the text, they are set out in alphabetical order.

2.3 Timescales

2.3.1. The Technical Guidance suggests that LCWIPs should cover a 10-year period. The BCP LCWIP is intended to cover a 15-year period to 2036 to account for the substantial scale of schemes envisaged. It will be subject to periodic updates, to account for changes in circumstances and progress in completing identified schemes.

2.5 Engagement and Consultation

Engagement Spring 2021

2.5.1. A period of public engagement on the LCWIP took place between 25 March 2021 and 26 April 2021. The activities and analysis of feedback is described in detail in the LCWIP Initial Engagement Report. In summary the engagement comprised of:

- Information placed on the BCP Council Have Your Say website. This explained what an LCWIP is, why BCP Council is preparing one, why the LCWIP is important, what the benefits are and what the LCWIP would and would not include;
- Social media posts from BCP Council, articles in the Transforming Travel newsletter and coverage in local websites;
- Two interactive maps, which identified the draft cycling network and the draft network of Core Walking Zones and Key Walking Routes. People were invited to drop pins on the map to identify problem locations for cycling and waking, suggested revisions to the draft cycling network, Core Walking Zones and Key Walking Routes, and suggested locations for new or improved cycle parking;
- An online survey with ten questions about the characteristics of the respondents and eight questions relating to aspects of the LCWIP as follows:
  - Views on proposals for a comprehensive network of cycling and walking routes connecting the whole BCP area;
  - Whether the network plans missed out any areas;
  - The most important types of improvements to make cycling and walking safer;
  - What routes should be prioritised next and why;
  - Ideas and locations for new and improved cycle parking; and
  - Views about the streets where respondents live.

2.5.2. A total of 390 surveys were completed and 796 comments added onto an interactive map by 87 contributors. The responses were carefully considered and, based on the feedback, amendments and revisions were made to the technical work and the draft network plans. Examples of the changes made are given in Chapters 4 and 6.

Public consultation Winter 2021

2.5.3. The draft LCWIP was made available on the BCP Council Have Your Say website for a period of public consultation between 1 November 2021 and 12 December 2021. People were invited to complete a survey comprising twelve questions. Of these, six questions asked about the characteristics of the respondents and the remaining six questions asked for views and comments on the following aspects of the draft LCWIP:

- Whether the targets and objectives were sufficiently ambitious;
- The methodology followed;
- The approach to developing and prioritising the cycling and walking infrastructure;
- Liveable Neighbourhoods;
- The Delivery Plan; and
- Identifying positive or negative impacts of the proposals on equalities or human rights.

2.5.4. WSP worked with BCP officers to review comments and consider implications for the technical work carried out. A number of changes were subsequently made to the Technical Report. For example, a two-page executive summary has been prepared to give a quick overview of the process followed to prepare the LCWIP.

Other Feedback

2.5.5. Particular organisations or individuals submitted feedback during the LCWIP development. This included a joint letter from Bournemouth University and Arts University Bournemouth supporting the LCWIP principles and identifying specific improvements which would benefit the staff, students and visitors to the university campuses.

2.5.6. BCP Council undertook an Equality Impact Assessment of the LCWIP. This considers whether the plan might impact differently on different groups of people protected in law. This identified that:

- Depending on their age, children and young people are either unable or less likely to drive than the population in general;
- Older people are less likely to cycle or drive than the population in general but are more likely to walk;
- Women are less likely to drive than men;
- Disabled people are less likely to have access to a car than non-disabled people;
- Race is a factor in car use, with all people with minority ethnic groups being less likely to have access to a car than the population as a whole;
- People who identify as ‘all other sexual orientations’ are less likely to drive than heterosexuals; and
- People living in the most deprived areas are significantly less likely to drive than those in less deprived areas, but conversely are more likely to suffer the negative impacts of car use such as road danger.

2.5.7. The Equality Impact Assessment concluded that there will be a positive benefit, to varying degrees, of adopting the proposals set out in the LCWIP, in particular to many of the people from protected characteristic groups. It noted that cycling and walking has the potential to improve access to essential services and facilities; education; employment; social contact and leisure.

2.5.8. The assessment concluded that there were no known negative impacts of adopting the LCWIP as a strategy document. It acknowledged that there may be perceived negative impacts by some people who may believe that improving cycling and walking infrastructure will adversely affect drivers. It noted that it will be essential for each scheme to explore and assess how specific proposals could affect people from different protected characteristic groups, and how the needs of these groups can be met through the design.

2.6 Public Support for Investment

2.6.1. Surveys indicate broad public support for investing in cycling and walking. Selected examples are set out below from national surveys, and from public engagement undertaken by BCP and Dorset Councils to shape schemes funded from the Transforming Cities Fund:

- Nearly two thirds of respondents to the National Travel Attitudes Survey supported the creation of dedicated cycle lanes in their local area, even if this means less road space for cars;
- 84% of respondents to the initial Transforming Cities Fund engagement agreed that the proposed investment in bus, cycling, walking infrastructure would enable people of all ages to travel in greener ways;
- Around 75% of respondents to the initial Transforming Cities Fund engagement considered that *'Safe cycle routes*', '*more segregated cycle lanes', 'better crossings' and 'more direct cycle routes'* were 'very effective' or 'effective' in enabling people to travel sustainably;
- Nearly 70% of respondents to the LCWIP engagement agreed that there should be a comprehensive network of cycling and walking routes;
- The types of improvements most frequently mentioned by respondents to the LCWIP engagement which would make cycling and walking safer and easier were segregated and protected cycle lanes (157 comments) and easy, accessible and direct routes (67 comments); and
- 67% of respondents to the initial Transforming Cities Fund engagement agreed that closing streets outside local schools (to motor vehicles) would make their local area a better place to live, work or visit.

3 Stage 2: Gathering Information

3.1 Introduction

3.1.1. The Technical Guidance states that LCWIPs should be evidence-led. This chapter summarises the context for, and evidence used to develop, the LCWIP. It describes the following:

- Plans, policies and strategies, including proposals for the future location of development and supporting infrastructure in the BCP authority area;
- Significant current and future journey origins and destinations - this forms the basis for considering cycling and walking networks to cater for anticipated travel demands;
- Existing cycling and walking network - summarising the infrastructure available and strategic physical barriers; and
- Existing cycling and walking travel patterns - publicly available data on journeys currently undertaken.

3.1.2. Other datasets were used for the Liveable Neighbourhood analysis and prioritisation process, and they are described in Chapter 7 and 8 respectively.

3.2 Plans, Policies and Strategies

3.2.1. Plans, policies and strategies at both the national and local level place strong emphasis on enabling more active travel and delivering better cycling and walking infrastructure. This is seen as fundamental to achieving a wide range of goals, including tackling climate change, supporting the economy, enhancing the environment, improving health, and social inclusion.

3.2.2. Key published local plans, policies and strategies are listed below:

- The Big Plan (June 2021) – sets out five big projects to deliver significant change to the whole BCP area. Several of these projects will invest in transport infrastructure for cycling and walking. Under the 'Iconic' theme the projects include the Boscombe Town Investment Plan, the Lansdowne Programme and Railway station upgrades. 'Rejuvenate Poole' includes high-quality public realm projects in Poole town centre, a new pedestrian bridge across the railway line and an improved town centre walking network. The 'Infrastructure' theme highlights the Transforming Cities Fund investment in bus, cycling and walking infrastructure (see information to the right);
- Corporate Strategy (February 2021) – sets out the Council's five strategic priorities – Brighter Futures, Connected Communities, Dynamic Places, Fulfilled Lives and Sustainable Environment. The LCWIP is relevant to each of them, and the accompanying Delivery Plan identifies that the LCWIP will be developed by the end of 2021;
- Health & Wellbeing Strategy 2020-2023 (September 2020) – outlines the Health & Wellbeing Board's aims to increase life expectancy, improve health and wellbeing, make sure children and young people have the best start in life, and recognise and address the climate emergency in its work;
- High Streets and District Centres Strategy (September 2021) – includes an objective to make BCP High Streets and District Centres cleaner and greener to ensure a positive customer experience;
- Highway Asset Management Policy and Strategy 2021-26 (March 2021) – these set out how the Council will manage the highway network, cycleways and footways;
- Local Plans – planning policy adopted by each of the three former councils includes policies to secure improvements to transport infrastructure as part of new development and extend and/or improve the cycling and walking networks. Work is underway to prepare a new BCP Local Plan, and when completed, this will replace planning policies adopted by the three former councils. The LCWIP will inform the new Local Plan in terms of infrastructure to serve existing and new homes, businesses and facilities. There are also three completed Neighbourhood Plans - Boscombe and Pokesdown, Broadstone and Poole Quays. The Highcliffe and Walkford Neighbourhood Plan is at examination;
- Local Transport Plan 2011-2026. This came into effect in 2011 and set out a 15-year strategy for the transport network, with three-year implementation plans setting out investment. Work is due to commence in winter 2021 on a new Local Transport Plan, to be prepared jointly with Dorset Council. This will set the policy basis for all transport investment, including the LCWIP, and it will replace the existing Local Transport Plan; and
- Rights of Way Improvement Plan (Autumn 2021) – a draft plan was published in autumn 2021 setting out the vision and strategy for improving footpaths, bridleways and byways across the Council area.

Investment Plans

3.2.3. The paragraphs below summarise major relevant active travel investment plans within BCP and their current status. Figure 3.1 identifies the location of both the recently completed and committed major capital investment in cycling and walking.

Transforming Cities Fund

3.2.4. BCP and Dorset Councils were one of twelve city regions shortlisted to bid for a share of the DfT's £2.45 billion Transforming Cities Fund (TCF) for transport improvements. The authorities were successful in winning £79.3 million (m) of Tranche 2 funding. The TCF investment will fund a 78km network of new cycling and walking routes and bus improvements across South East Dorset, connecting major education, employment, housing and retail centres. Six sustainable travel routes are planned:

- Bournemouth railway station to/from Jumpers Common, Christchurch;
- Bournemouth town centre to/from Ferndown;
- Poole town centre to/from Holton Heath;
- Poole town centre to/from Merley, Poole;
- Poole town centre to/from Ferndown and Wimborne; and
- Merley, Poole to/from Christchurch.

Figure 3.1 - Committed and Recently Completed Strategic Cycling and Walking Capital Investment

3.2.5. Phase 1 of formal public consultation on the TCF Programme took place in spring 2021 covering four of the six sustainable travel routes. Phase 2 of formal public consultation took place in summer 2021 for the remaining two sustainable travel routes.

Dorset Local Enterprise Partnership

A3049 Wallisdown Road

3.2.6. Dorset Local Enterprise Partnership (Dorset LEP) invested £1.3m from the Government's Local Growth Fund towards an overall £3.3m programme of improvements for the western part of Wallisdown Road. The scheme is being delivered by BCP Council and will provide cycling and walking improvements along Wallisdown Road, from Mountbatten Roundabout to the Bryant Road Junction.

Lansdowne

3.2.7. A new protected cycle route, infrastructure improvements for local buses and additional pedestrian crossing points will be introduced on Holdenhurst Road to support more sustainable journeys through the area. A total of £4.8m in government funding has been secured through Dorset Local Enterprise Partnership Local Growth Fund to deliver this and other improvements.

Town Deal

3.2.8. The government is investing £23m in Boscombe as part of a Town Investment Plan. BCP Council is developing a masterplan for Boscombe town centre, which aims to create a vibrant mixed-use community and attractive public realm. Along with new homes and commercial space, the proposals could include:

- the removal of Centenary Way and the existing bus station;
- restoration of the east-west Haviland Road (through the Sovereign Centre site); and
- a new square on the pedestrianised section of Christchurch Road.

3.3 Trip Generators

Introduction

3.3.1. The Technical Guidance states that identifying demand for a planned network should start by mapping the main origin and destination points across the geographical area to be covered by the LCWIP.

Origins

3.3.2. The Technical Guidance notes that trips usually originate from the main residential areas. Census Output Areas (OAs) were chosen to represent journey origins from each existing residential area. OAs are a category of statistical geography created by the Office for National Statistics (ONS). Each one has a similar population and are as socially homogenous as possible, based on tenure of household and dwelling type. Each one has a similar population and are as socially homogenous as possible, based on tenure of household and dwelling type.

3.3.3. Middle-layer super output areas (MSOAs) were chosen for the LCWIP methodology. These areas had populations of between 5,000 and 15,000 at the time of the 2011 census. 47 MSOAs cover the BCP authority area (see Figure 3.2). For each output area the ONS creates a single node point known as a population-weighted centroid. These are nodes located to reflect where the majority of people live within the output area. For the LCWIP the centroids were used to represent the start location of journeys from all homes within an output area.

3.3.4. Additional nodes were added to represent journeys from homes proposed to be developed on the three urban extensions identified in adopted planning policy, as follows:

- From the Christchurch & East Dorset Core Strategy:
  - Policy CN1 Christchurch Urban Extension;
- From the Poole Local Plan:
  - Policy UE1 North of Merley; and
  - Policy UE2 Bearwood.

3.3.5. As highlighted in section 2.1, cross-boundary journeys from neighbouring authorities were considered as part of the network planning. These travel flows were represented in the LCWIP methodology by including six additional origin nodes for travel from neighbouring communities west, north and east of BCP. These nodes covered the following communities:

- Upton and Lytchett Minster;
- Corfe Mullen;
- Wimborne and Colehill;
- Ferndown, Hampreston, Longham, and West Parley;
- St Leonards and St Ives; and
- New Milton, Barton-on-Sea and settlements on the coast east of Highcliffe.

Figure 3.2 - Journey Origins Used for Network Planning

Destinations

3.3.6. The aim of the LCWIP is to facilitate cycling and walking journeys to a variety of destinations and for a wide range of journey purposes. Destination categories were chosen to represent a range of journeys made by different people in the BCP area.

3.3.7. The schedule of destinations used for the network planning is shown in Table 3.1. More detail on how these destinations shaped the network planning for cycling and walking are set out in Chapters 4 and 6 respectively, including plans showing the locations of destinations referred to in the table.

3.3.8. In similarity to journey origins, cross-boundary journeys to strategic destinations in neighbouring authorities were also accounted for. These were represented in the LCWIP methodology by including six additional destination nodes for different directions of travel, as follows:

- Upton and Lytchett Minster;
- Corfe Mullen;
- Wimborne and Colehill;
- Ferndown, Hampreston, Longham, and West Parley;
- St Leonards and St Ives; and
- New Milton, Barton-on-Sea and settlements on the coast east of Highcliffe.

Table 3.1 – Destination categories used in network planning

Category	Strategic Destinations	Additional Secondary Destinations
Centres and retail	Town centres District centres in Poole and Christchurch and higher tier District Centres in Bournemouth Other major out-of-centre retail (Data source: Bournemouth, Christchurch & Poole local plans)	Lower tier District Centres in Bournemouth Local centres (Data source: Bournemouth, Christchurch & Poole local plans)
Education	Major University & College Sites	Primary and Secondary Schools (Data source: Opendata)
Employment	Key employment areas outside of retail centres (industrial estates, business parks, Bournemouth Airport) (Data source: Agreed in consultation with Council officers)	All commercial address points (Data source: Ordnance Survey Local Land & Property Gazetteer)
Healthcare	Major Hospitals	GP surgeries and Pharmacies (Data Source: Opendata)
Leisure	Selected leisure facilities, attractions and open spaces (Data source: Agreed in consultation with Council officers, based on likely significant trip generation)	Public parks and gardens, tennis courts, playing fields, play areas, bowling greens and other sports facilities (Data source: Ordnance Survey Greenspace dataset)
Transport interchanges	Rail stations with more than 250,000 passengers per annum (based on Office of Rail & Road data available at time of analysis for 2017/2018) Poole Bus Station and Bournemouth Travel Interchange Sandbanks Ferry Poole Port	Rail stations with fewer than 250,000 passengers per annum (2017/2018 data)

3.4 Existing cycling & walking network

Existing cycling network

3.4.1. In broad terms the network of routes available for people cycling is comprised of:

- The carriageways of roads and streets, either sharing the space with motor vehicles, or with cycle lanes delineated by road markings;
- Cycle tracks parallel to and physically protected from motor traffic, such as by kerbs, and sometimes shared with pedestrians; and
- Motor traffic-free routes, such as across open spaces or on public bridleways and byways, sometimes shared with pedestrians.

3.4.2. The existing network of cycle tracks, motor traffic-free cycle routes, public bridleways and public byways are shown on the plans in Appendix A. The plans were based on details in the Bournemouth, Christchurch and Poole Area Cycle Map and updated in line with Council officer information.

Analysis

3.4.3. Two strands of analysis were undertaken to inform the later stages of network planning. These were Mesh Density Analysis and Accessibility Classification.

Mesh Density Analysis

3.4.4. Mesh density analysis is an assessment of how comprehensive the cycle network is. The analysis is described in LTN 1/20, which notes that “In a built-up area, the spacing of [cycle] routes should typically be 250m – 400m, but this will decrease in outer suburbs where the density of development is lower.” Assuming cycle routes every 400m in both directions, a 1km by 1km cell should have 4km of cycle network.

3.4.5. There are two alternative methodologies available to assess mesh density. The method chosen for the BCP area required the area to be divided into 1 km by 1 km cells, so that the length of the cycle network within each 1sqkm cell can be measured. This indicates the density of cycle route networks relative to other areas.

3.4.6. Appendix B shows the length of existing cycle route within each cell. The analysis was based the routes identified on the plans in Appendix A. The plans show that many parts of BCP currently have no traffic-free routes for cycling or segregated cycle tracks, including large parts of Parkstone, Winton and Southbourne. Very few areas currently have more than 3km of traffic-free or segregated cycle routes per square kilometre (parts of Creekmoor, Canford Heath, Slades Farm and Somerford).

3.4.7. It should be noted that the existing motor traffic-free cycle routes will be of varying standards, developed prior to LTN 1/20 and therefore will not meet the five core design principles outlined in the guidance. The Area Cycle Map also shows a number of on-carriageway advisory routes; however, these have varying levels of motor traffic flows and speeds. On that basis the mesh density plan did not take account of any of the advisory routes at this stage.

Accessibility classification

3.4.8. Accessibility classification assesses every link which can be used by people cycling based on the level of experience needed to ride it. The approach is referenced in LTN 1/20 and the methodology is described in the London Cycling Design Standards (LCDS). LTN 1/20 notes that on quiet residential streets, most people will feel comfortable cycling on the carriageway. Figure 4.2 of LTN 1/20 sets out the motor vehicle flow and speed thresholds above which people are likely to feel more unsafe cycling on the carriageway.

3.4.9. An initial accessibility classification exercise was undertaken for each road in the BCP area, based on estimated vehicle traffic flows only. This made use of count data collected by the DfT and BCP Council, and estimated traffic flows extracted from the South East Dorset Transport Model. Each road or route which can be used by people cycling was assigned a colour-coded category, based on the thresholds for mixed traffic in LTN 1/20 Figure 4.2. These categories are described in Table 3.2.

Table 3.2 – Categories Used for Initial Accessibility Classification

Colour-Coded Category	Description	Type of Road or Route
Green	Cycle tracks, motor traffic-free cycle routes, public bridleways and public byways	Cycle tracks, motor traffic-free cycle routes, public bridleways and public byways
Amber	On-carriageway cycling suitable for most people	Roads estimated to have fewer than 2500 vehicles per day (urban areas) or 1000 vehicles per day (rural areas)
Light Red	On-carriageway cycling not suitable for all people and will exclude some potential users and/or have safety concerns	Roads estimated to have between 2500 and 5000 vehicles per day
Dark Red	On-carriageway cycling suitable for few people and will exclude most potential users and/or have safety concerns	Roads estimated to have greater than 5000 vehicles per day

3.4.10. Appendix C contains plans of the initial accessibility classification analysis for the BCP area. The plans are indicative estimates based on information currently available.

3.4.12. In terms of motor vehicle speeds, comprehensive digitised speed limit data was not available during the LCWIP development to factor into the accessibility classification. Were the data available it would change the resulting analysis as follows:

- Low-traffic residential streets in the urban areas with 30mph speed limits (shown as amber on the plans) would be categorised as red; and
- Low-traffic rural roads with speed limits of 40mph or greater (also shown as amber on the plans) would also be categorised as red.

3.5 Current and Future cycling and walking travel patterns

3.5.1. The main datasets providing information on cycling and walking travel patterns are described in the paragraphs below.

Census 2011 data

Travel patterns

3.5.2. The census collects data on usual mode of travel to work, plus home location and employment destination. The most recent census for which data is publicly available is 2011. Whilst the data is now ten years old, it is a comprehensive dataset which can be analysed as a local scale. It also provides a consistent data source across all LCWIPs currently in development. Data from the 2021 census is not yet available; when released it is expected to reflect very different travel behaviour in March 2021, during Covid-19 lockdown. Due to the limitations of the 2011 census data, a range of additional data sources were also used to inform the network planning for the BCP LCWIP.

3.5.3. At the time of the 2011 census 5% of BCP residents who travelled to work usually commuted by cycle and 12% usually commuted on foot. However, there are variations between neighbourhoods, including:

- Higher than average levels of cycling to work by residents in parts of Winton, Malmesbury Park and Fairmile (7%) and Hamworthy (8%);
- 13-15% of commuters travelling from Southbourne to Royal Bournemouth Hospital / Chaseside area usually travelled by cycle
- 11% of commuters travelling from Lower Parkstone to Poole town centre / Longfleet usually cycled; and
- Higher than average levels of walking to work by residents of Bournemouth West Cliff and Westbourne (21-23%), Bournemouth East Cliff and Lansdowne (27%), Bournemouth town centre (30%) and Poole Old Town and Longfleet (32%).

Future cycling demand

3.5.4. For travel to work journeys the PCT contains five scenarios of how levels of cycling might change in the future to compare against baseline data (the census 2011). The five scenarios are as follows:

- Government Target (equality);
- Government Target (near market);
- Gender Equality;
- Go Dutch; and
- E-bikes

3.5.5. In most scenarios (apart from gender equity) cycling potential is based on trip distance (people are more likely to cycle a shorter trip than a longer trip) and hilliness (people are generally less likely to cycle a trip involving hills).

3.5.6. Table 3.3 shows the average percentage of journeys to work which would be cycled under each scenario, along with a description of the scenario. The government's strategy document Gear Change and design guidance LTN 1/20 outline that investment in high-quality infrastructure is key to unlocking this potential cycling demand.

Table 3.3 – Average BCP cycling to work percentages under different future scenarios

Scenario Name	Description	% Cycling to Work	% Driving to Work
Census 2011	Baseline used to generate potential future scenarios	5%	66%
Government Target (equality)	Assumes cycling doubles nationally, but with the extra 100% of trips distributed based on distance and hilliness (hence the doubling is not equal across the country)	9%	63%
Government Target (near market)	This scenario assumes cycling doubles nationally, but also accounts for age, gender and other factors that affect the likelihood of cycling	9%	63%
Gender equality	Illustrates the increase in cycling that would result if women were as likely as men to cycle a given trip. The scenario sets the proportion of female cycle commuters to be equal to the current proportion of males. This scenario has the relatively higher impact in areas where the rate of cycling is highly gender-unequal	8%	64%
Go Dutch	Using a formula and Dutch travel data), this scenario estimates how likely a Dutch person would be to cycle that trip. For example, the PCT estimates that a 2km, 1% average gradient trip has an 46% probability of being cycled in the Netherlands. So, in the Go Dutch scenario this 46% probability is assigned to all 2km, 1% average gradient trips	25%	53%
E-bike	Explores the potential impact on cycling levels through the widespread uptake of electric cycles	32%	48%

3.5.7. Table 3.3 demonstrates that, in the short-term, commuter cycling is expected to increase from 5% (Census 2011) to 9% (the Government Target equality and near market scenarios). In the Go Dutch scenario, the BCP authority area would see 25% of commuters cycling to work, and as a consequence travel to work by car would reduce from a mode share of 66% (Census 2011 levels) to 53%. The e-bike scenario demonstrates the greatest potential for change. In this scenario commuter cycling sees the greatest increase (forecast to account for 32% of all trips to work) and travel to work by car would decrease (to a mode share of 48%).

3.5.8. The PCT forecast commuting flow maps (Appendix D) show where the increased cycling demand is expected to occur across the conurbation.

Schools Census 2011 data

3.5.9. Until 2011 the Department for Education's statutory schools census collected information on pupils' usual, main mode of travel to school.

3.5.10. The PCT created three potential cycling to school scenarios, to compare against baseline travel patterns (2011 schools census). The scenarios are:

- Government Target (equality);
- Go Cambridge; and
- Go Dutch.

3.5.11. Table 3.4 shows the average percentage of journeys to school which would be cycled under each scenario, along with a description of the scenario.

Table 3.4 – Average BCP cycling to school percentages under different future scenarios

Scenario	Description	% Cycling to school	% Car Passenger to School
School Census 2011	Baseline used to generate future potential scenarios	5%	33%
Government Target (equality)	Assumes cycling doubles nationally, but with the extra 100% of trips distributed based on distance and hilliness (hence the doubling is not equal across the country)	7%	33%
Go Cambridge	Shows the proportion of children who would cycle to school if local children acquired the same propensity to cycle as children currently living in the Cambridge City Council area	22%	26%
Go Dutch	Similar to the Go Cambridge scenario, except using travel data for children living in the Netherlands as opposed to children living in Cambridge as the reference point	40%	19%

3.5.12. Achieving the existing cycling levels in Cambridge would equate to a fifth of the school run in BCP being made by bike, but the greatest potential for change is under the Go Dutch scenario. Attaining Dutch levels of cycling in the UK would lead to 40% of children cycling to school in the BCP area, and as a consequence travelling by car would reduce to 19% of travel to school. This would be transformative in terms of helping to achieve a range of Council corporate priorities.

3.5.13. The PCT forecast travel to school flow maps (Appendix E) identify where the increase in cycling demand is expected to occur. Compared to employment areas, schools are relatively evenly distributed across the authority and are often located within residential neighbourhoods. This suggests that measures such as a secondary cycle network (see Section 5.2) or Liveable Neighbourhoods (see Chapter 7) may be of particular importance to enable more cycling to schools.

Beryl Bike Share Data

3.5.14. BCP Council awarded a 5-year contract for a bike share scheme to Beryl in 2019 and it now covers the whole BCP authority area. There are currently approximately 1,200 Beryl Bikes and 340 Beryl bays positioned at key attractions, transport hubs and workplaces across the BCP authority area.

3.5.15. Figure 3.3 outlines the Beryl Bike ‘heatmap’. The wider and whiter the line, the more intensively used the route is by Beryl bikes. Traffic-free paths such as the Castleman Trailway (Upton to Merley) and the seafront promenade are clearly visible on the plan as popular routes. So too are many of the direct roads and streets in the conurbation, such as Blandford Road and Wimborne Road in Poole, and Charminster Road, Holdenhurst Road, Poole Road, Talbot Avenue and Wimborne Road in Bournemouth.

3.5.16. The heatmap identifies that there are already significant levels of cycling on these routes despite people often having to mix with heavy motor traffic flows. The heatmap also shows a large number of other routes, offering connections and short-cuts to neighbourhoods.

Figure 3.3 - Beryl Bike Share Heatmap, 2021

Source: Beryl Bikes. The wider and whiter the line, the more intensively used the route is by Beryl bikes

4 Stage 3: Network Planning for Cycling

4.1 Classification of cycle routes and methodology overview

4.1.1. The Technical Guidance suggests that cycle corridors be classified according to their significance and likely future cycle demand. Two of the three classifications in the Technical Guidance were used for the BCP cycle network planning, as identified in Table 4.1.

Table 4.1 – Approach adopted to cycle route classification

Classification	Technical Guidance Definition	BCP LCWIP Approach
Primary route	High flows of cyclists are forecast along desire lines that link large residential areas to trip attractors such as a town or city centre	Identify and agree a network of primary cycle routes to connect to town centres and major out-of-town retail, key employment areas, college and university campuses, major hospitals, selected leisure attractions and key transport interchanges
Secondary route	Medium flows of cyclists are forecast along desire lines that link to trip attractors such as schools, colleges	Identify and agree a network of secondary cycle routes to complement primary routes and serve other destinations, including schools, colleges and local shopping centres
Local route	Lower flows of cyclists are forecast along desire lines that cater for local cycle trips, often providing links to primary or secondary desire lines	Analysis undertaken on areas which might need, or benefit most, from area-wide measures to create streets with low motor traffic speeds and flows to enable safe cycling (see Chapter 7)

4.1.2. Due to the large geographical size of the BCP area and the amount of work involved, there was an initial focus on identifying a network of primary cycle routes. A subsequent phase of development focused on the secondary cycle route network.

Methodology overview

4.1.3. Different approaches were used to plan the primary and secondary cycle route networks. These are described below.

4.2 Primary cycle route network

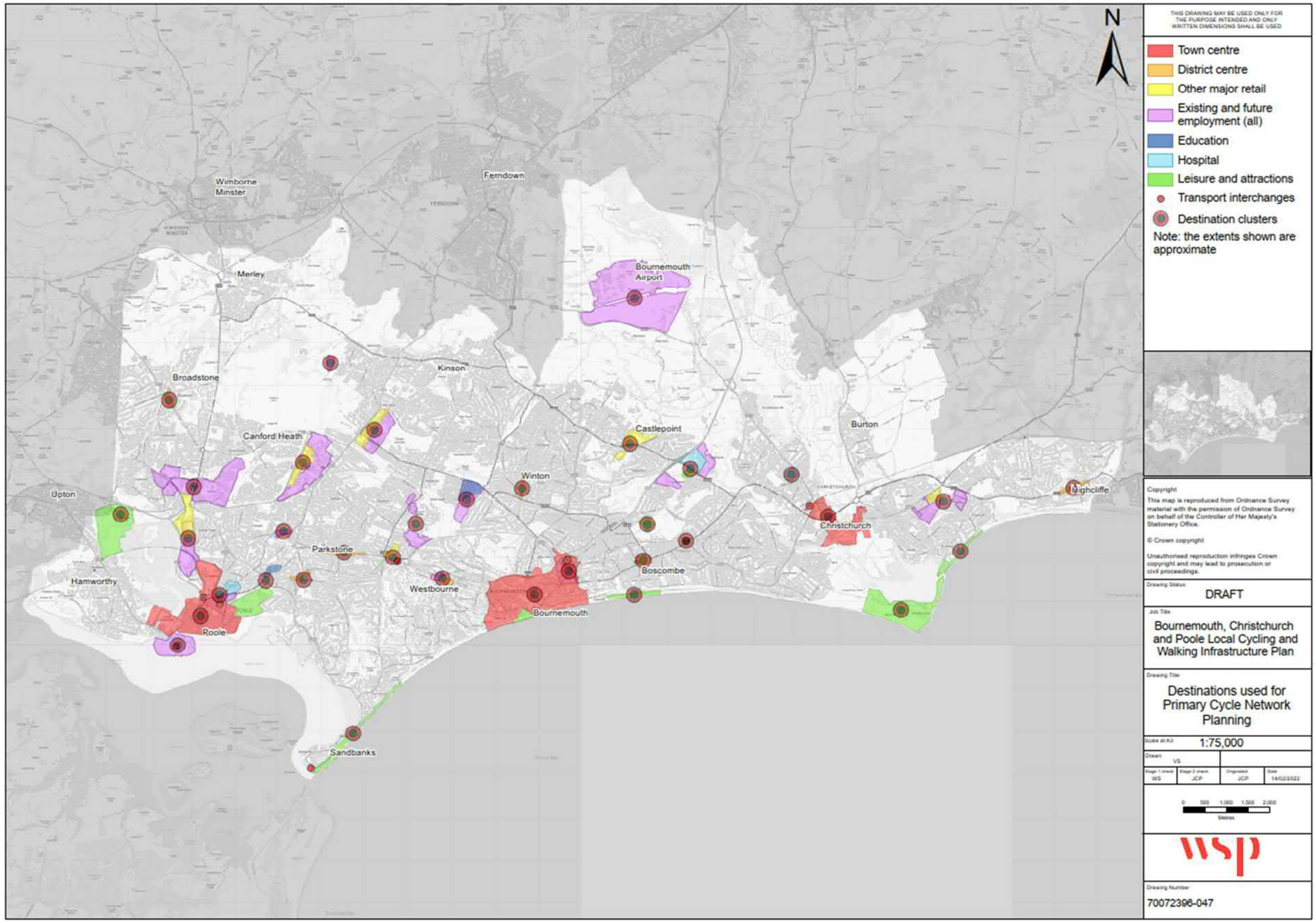
Origins and destinations

Strategic Origins

4.2.1. The primary cycle route network planning used the origins shown on Figure 3.2.

Strategic Destinations

The Technical Guidance identifies that, when planning cycle route networks for larger geographical areas, it may be appropriate to include only the most significant trip generators. The primary cycle route network planning used the strategic destinations outlined in Table 3.1 and shown on Figure 4.1Figure 4.1 - Destinations used for Primary Cycle Route Network Planning

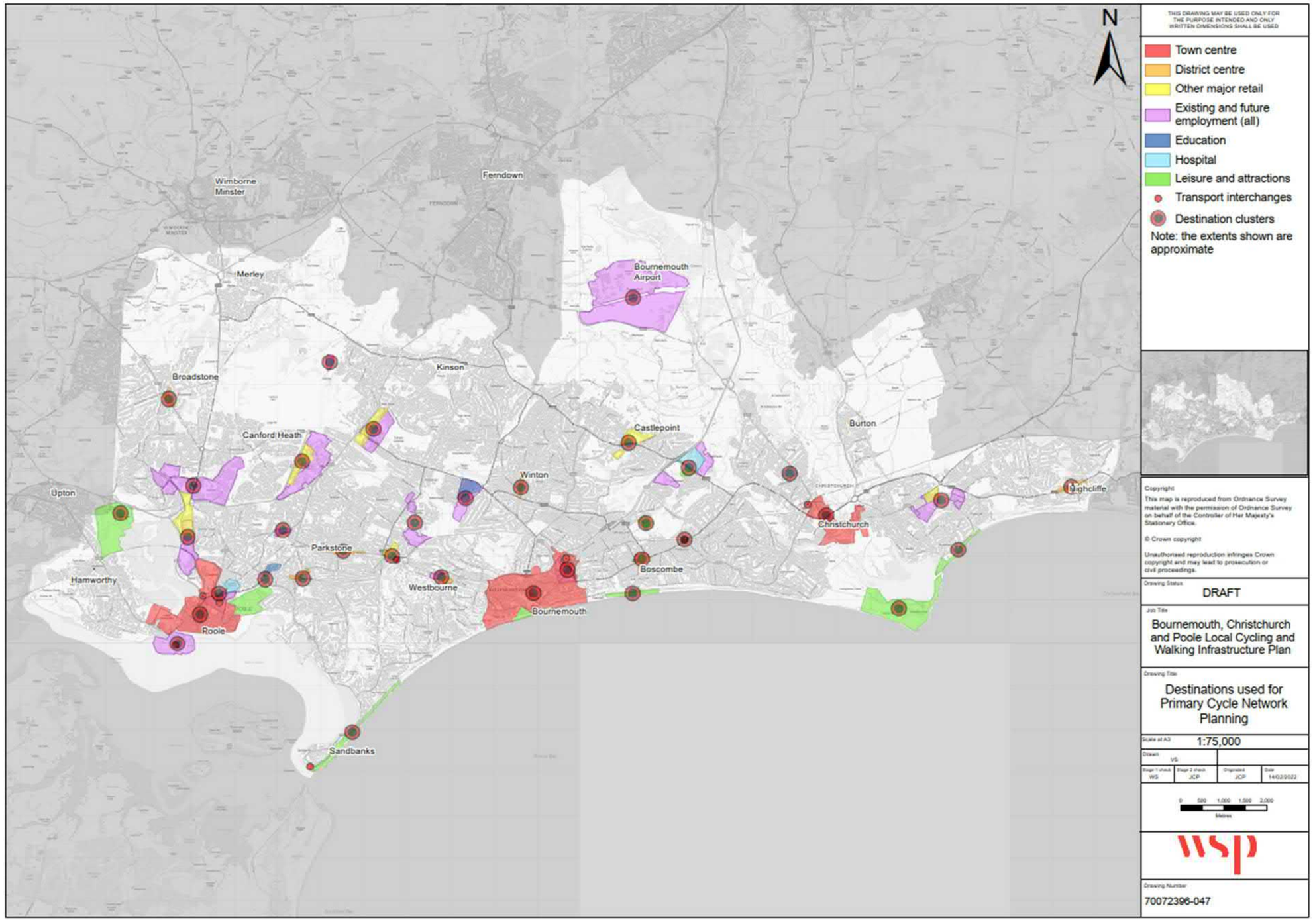


4.2.2. . The destinations are listed in detail in Table 4.2. These were considered to currently generate, or likely to generate in the future, significant numbers of trips (regardless of travel mode). To simplify the network planning, and in line with the Technical Guidance, destinations near each other were clustered.

Table 4.2 – Schedule of Destinations used for primary cycle route network planning

Centres and Retail	Education	Employment	Healthcare	Leisure	Transport Interchanges
<u>Town Centres</u> Bournemouth Town Centre (including Lansdowne) Christchurch Town Centre Poole Town Centre <u>District centres</u> Ashley Cross Boscombe Broadstone Highcliffe Upper Parkstone Westbourne Winton <u>Out-of-centre-retail</u> Castlepoint & Mallard Road Poole Retail Park Somerford Tower Park Turbary Retail Park Wessex Gate Retail Park	Talbot Academic Quarter (including Talbot Campus (Bournemouth University & Arts Institute Bournemouth)) Lansdowne Campus (Bournemouth University & Bournemouth & Poole College) North Road Site (Bournemouth & Poole College)	Alder Road, Poole Bournemouth Airport and Northern Business Parks (North East and North West Sectors) Bourne Valley BAE Grange Road, Christchurch Business Park and Priory Industrial Park Cabot Lane / Sopers Lane, Poole Chaseside, Bournemouth County Gates, Poole Fleets Lane / Holes Bay, Poole Innovation Quarter, Talbot Village Manning's Heath, Poole Fleets Corner / Nuffield Industrial Estate, Poole Poole Port Wessex Fields (Deansleigh Road & Riverside Avenue), Bournemouth West Howe Industrial Estate / Wallisdown Road, Bournemouth Wilverley Road, Airfield Road and Airfield Way areas, Christchurch	Christchurch Hospital Poole General Hospital Royal Bournemouth Hospital	Boscombe Beaches Bournemouth Beaches Hengistbury Head King's Park & Bournemouth AFC Mudeford Seafront Poole Park Poole Beaches (Sandbanks) Upton Country Park	Bournemouth Travel Interchange Rail Stations (Bournemouth Branksome, Christchurch, Pokesdown and Poole) Poole Bus Station Poole Ferry Terminal Sandbanks Ferry

Figure 4.1 - Destinations used for Primary Cycle Route Network Planning



Identifying desire lines for cycle movements

4.2.3. The next step was to connect the strategic origins and destinations. As directness is an important factor in the suitability of cycle routes, the origin-destination connections were shown as straight-line corridors (referred to as desire lines). Mapping the desire lines to existing roads or cycle routes follows in a subsequent step (see below for a description of this).

4.2.4. In agreement with Council officers, a network of primary cycling desire lines was identified to cover the whole of the plan area. It was considered that there is no one single dataset or method which is suitable to identify all relevant desire lines, and that different approaches have advantages and disadvantages. On that basis three different methods were used to create a consolidated set of desire lines:

- Firstly, corridors with the highest forecast future cycle commuting flows were identified by using the PCT;
- Secondly, corridors catering for short-distance journeys to a range of destinations in different locations were identified by map analysis (Geographical Information Systems). Each origin point was connected to all key employment areas and town centres within 5km and to the nearest location of each of the other destination categories. Trends (corridors with the greatest concentration of lines) were then identified from the resultant maps; and
- Thirdly, links were added in some locations to ensure balanced network coverage for the whole plan area.

4.2.5. The resulting plan of desire lines was refined following feedback from Council officers and is shown in Figure 4.2.

Route selection

4.2.6. Following the identification and agreement of desire lines, each line was mapped to existing roads and cycle routes. The Technical Guidance highlights that the clear preference will usually be the most direct route between the origin and destination. It adds that in some cases there may be more than one potential route between origin and destination points or a reason why the most direct route is not suitable for cycling.

4.2.7. The route selection process was iterative. The online cycle route planning tools on CycleStreets and Google Maps plus Council officers' local knowledge were used to map desire lines to existing available routes. In some cases, a significant deviation was required to find the nearest available crossing over roads, railways or rivers. A balance often had to be found between identifying the technically shortest route (which may zig-zag through residential streets and could be confusing to follow) versus a slightly longer route (which may be easier to follow). In some cases, the mapping process highlighted requirements for completely new connections (such as bridges across rivers).

4.2.8. The proposed routes were presented to Council officers and confirmed, or amended in line with comments, as appropriate.

Public Engagement Feedback

4.2.9. The proposed primary cycle route network was published online for a period of public engagement between 25 March and 26 April 2021. The responses were carefully considered and amendments to the network were made based on feedback. This included:

- Identifying an inland primary cycle route between Sandbanks and Southbourne as a year-round alternative to the Seafront;
- Showing Poole Park as a primary east-west cycle route instead of Parkstone Road; and
- Showing The Avenue as a primary cycle route instead of a secondary cycle route to connect Westbourne to Branksome Chine.

4.2.10. Figure 4.3 gives an overview of the resultant network of primary cycle routes. Appendix F shows the network in more detail on five sheets.

Route auditing and Identifying improvements

4.2.11. The next step was to assess the current quality of primary cycle routes (a process which involves a combination of desktop analyses and site visits). This is known as route auditing and the purpose was to understand whether routes are currently suitable for cycling, and if not, what needs to be improved.

4.2.12. Due to the very large network identified of primary cycle routes, route audits were undertaken for a subset of the network. The audit of routes being considered for Transforming Cities Fund investment was prioritised.

4.2.13. The audit process was carried out in line with the Technical Guidance and used the DfT's Route Selection Tool. Routes were scored against the five design criteria (directness, gradient, safety, connectivity and comfort). These were given a score out of 5 (where 0 represented least suitable routes and 5 represented most suitable). Junctions which were considered to have characteristics hazardous to cycling were also identified (described as 'critical junctions'). The Technical Guidance notes that the aim of audits is to identify routes which score 3 or above against each design criteria (or which could be improved to score 3 or above), ideally with no critical junctions.

Figure 4.2 - Desires Lines for Primary Cycle Network Planning

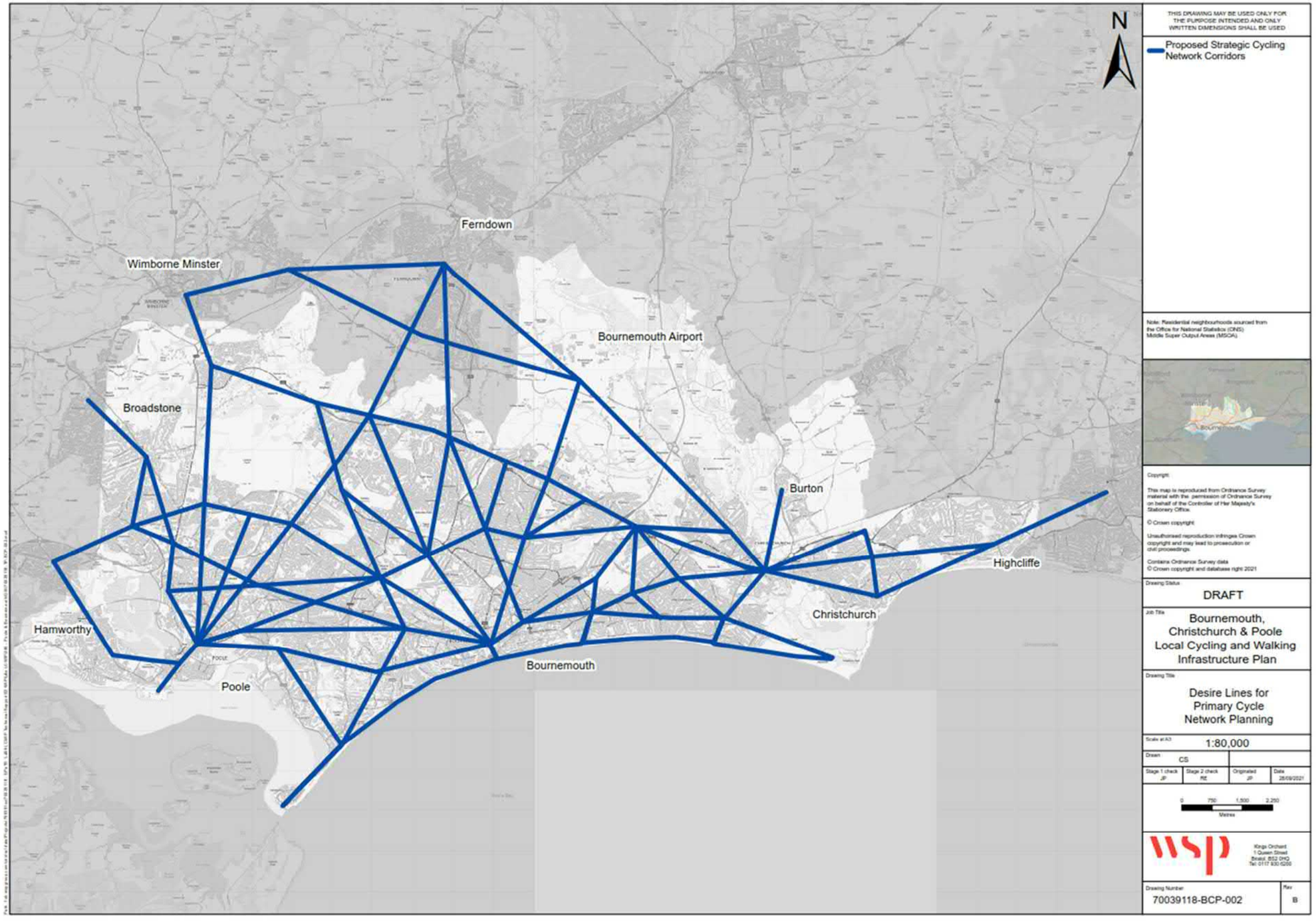
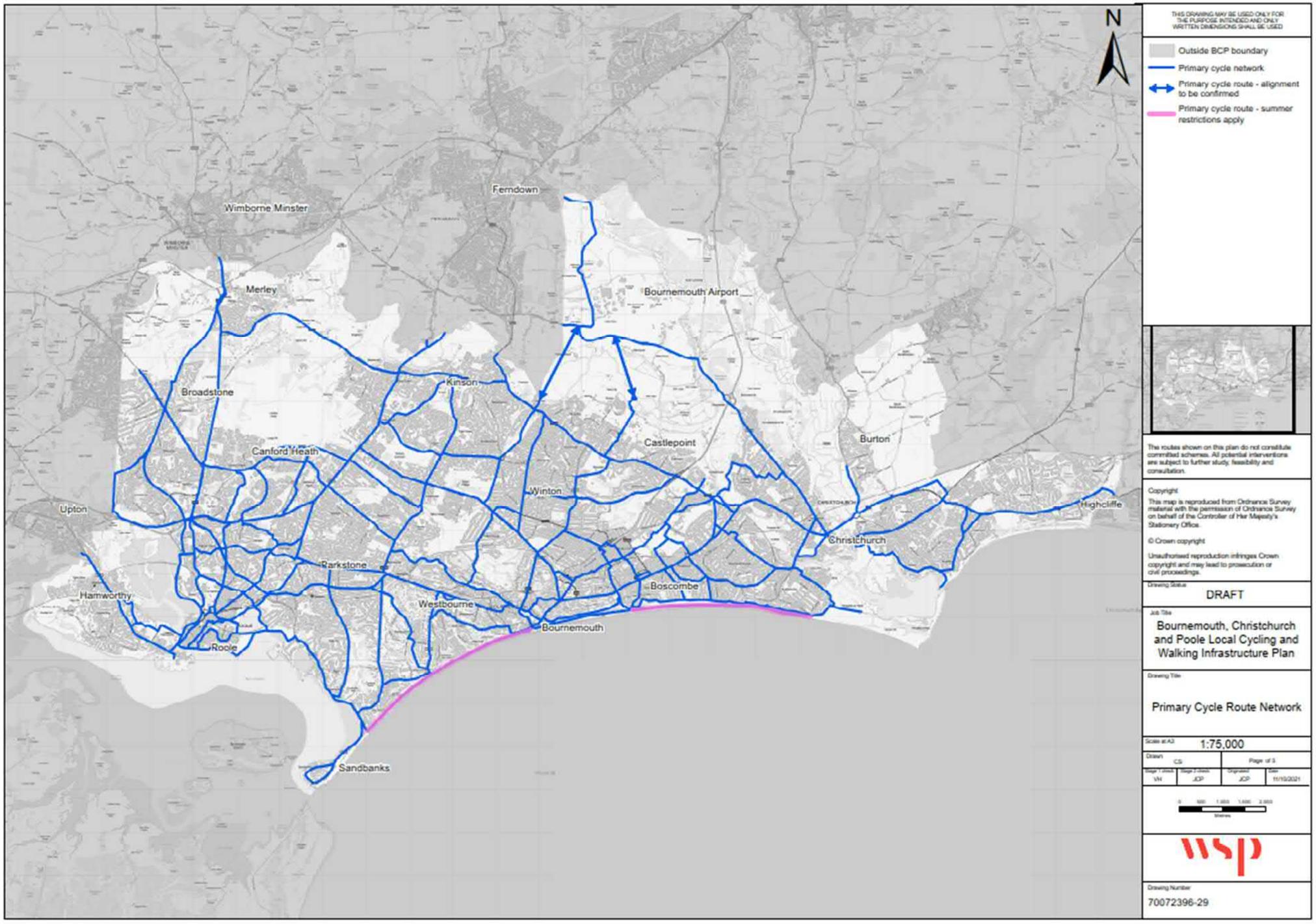


Figure 4.3 – Primary Cycle Route Network



5.1.1. The key findings in terms of suitability of routes for cycling included the following:

- Streets with heavy motor traffic flows or motor vehicles travelling at high speeds scored poorly against safety and comfort criteria, where people cycling have no physical separation from motor vehicles;
- Cycle tracks and traffic-free paths scored poorly against the comfort criterion where there is insufficient width to comfortably accommodate cycle flows, all types of cycle designs, or where there are barriers which prevent passage by certain types of cycle;
- Shared-use paths scored poorly against the comfort criterion where there is insufficient width to accommodate people cycling and walking, and especially where there are high numbers of pedestrians;
-
- Paths which are unlit or have no passive surveillance (not overlooked by neighbouring land uses) scored poorly on the safety criterion; and
- Steep route sections scored poorly against the gradient criterion;
- Quiet streets scored well against the comfort and safety criteria sections, where they have low traffic volumes and low traffic speeds, such as where effective 20mph limits are in place; and
- Cycle tracks and traffic-free paths scored well where they are sufficiently wide to comfortably accommodate all users, have smooth surfaces, are well-lit and are overlooked by neighbouring land uses.

5.1.2. Critical junctions included:

- Roundabouts and gyratory systems without infrastructure to physically separate people cycling from heavy motor traffic flows;
- Traffic signal junctions without infrastructure to physically separate people cycling from heavy motor traffic flows and/or which do not have a separate phase for cycle movements;
- Wide, flared side road junctions, where people cycling could be at particular risk of side-swipe collisions from motor vehicle drivers; and
- Crossings of high-speed roads without signal crossings and places where people cycling have to cross multiple traffic lanes without priority.

5.1.3. As described above, only a subset of routes were audited at this stage and further routes will be audited as resources allow. Some of the audits are likely to conclude that some sections of the primary cycle routes cannot be made suitable for cycling and/or are undeliverable on the most direct alignment. In these cases the route auditing process will identify a deliverable parallel route. These are likely to make use of links currently identified as part of the secondary cycle route network (see section 5.1.3 below). Where this is the case the cycle route network plan will be revised to reflect this.

5.3 Secondary Cycle Route Network

Introduction

5.3.1. The secondary cycle route network is intended to enable people to access a wide range of local destinations. It complements, and connects to, the primary cycle route network and helps to create a dense, diffuse network of routes for cycling in line with DfT guidance. The secondary cycle route network planning was undertaken subsequent to, and taking account of, the drafting of the primary cycle route network.

Destinations

5.3.2. A more extensive range of destinations was used to inform the secondary cycle network planning than for the primary cycle network development (see schedule in Table 3.1 and plans in Appendix G). The mapping of these destinations was used to ensure that the proposed cycle routes serve the places people need to access and considered a wide range of journey purposes.

Network planning principles

5.3.3. The following set of principles were adopted when identifying the secondary cycle route network:

- Routes should connect to primary and secondary destinations, with a focus on serving schools;
- A stronger emphasis on traffic-free links and/or streets which are currently, or have the potential to be, low motor traffic, low-speed environments, compared to the primary cycle route network;
- Routes should be direct and where possible should avoid excessive changes in direction (e.g. not zig-zagging though complex street networks); and
- A preference for sections of secondary network which can be easily connected, with enhanced crossings over streets with heavy motor traffic flows.

Identifying secondary cycle route network

5.3.4. Four methods were used to build up the draft secondary cycle route network, using the following data, evidence and inputs:

- Data on the most popular routes used by Beryl Bike users (see Figure 3.3);
- PCT data for commuting and education trips mapped to the road network (Appendix E and Appendix F);
- Identifying routes to serve the secondary destinations (shown on the plans in Appendix D); and
- Suggestions from council officers via internal review.

Public Engagement Feedback

5.3.5. The draft network was published online for a period of public engagement between 25 March and 26 April 2021. The feedback was carefully considered, and the draft network was amended in line with comments made.

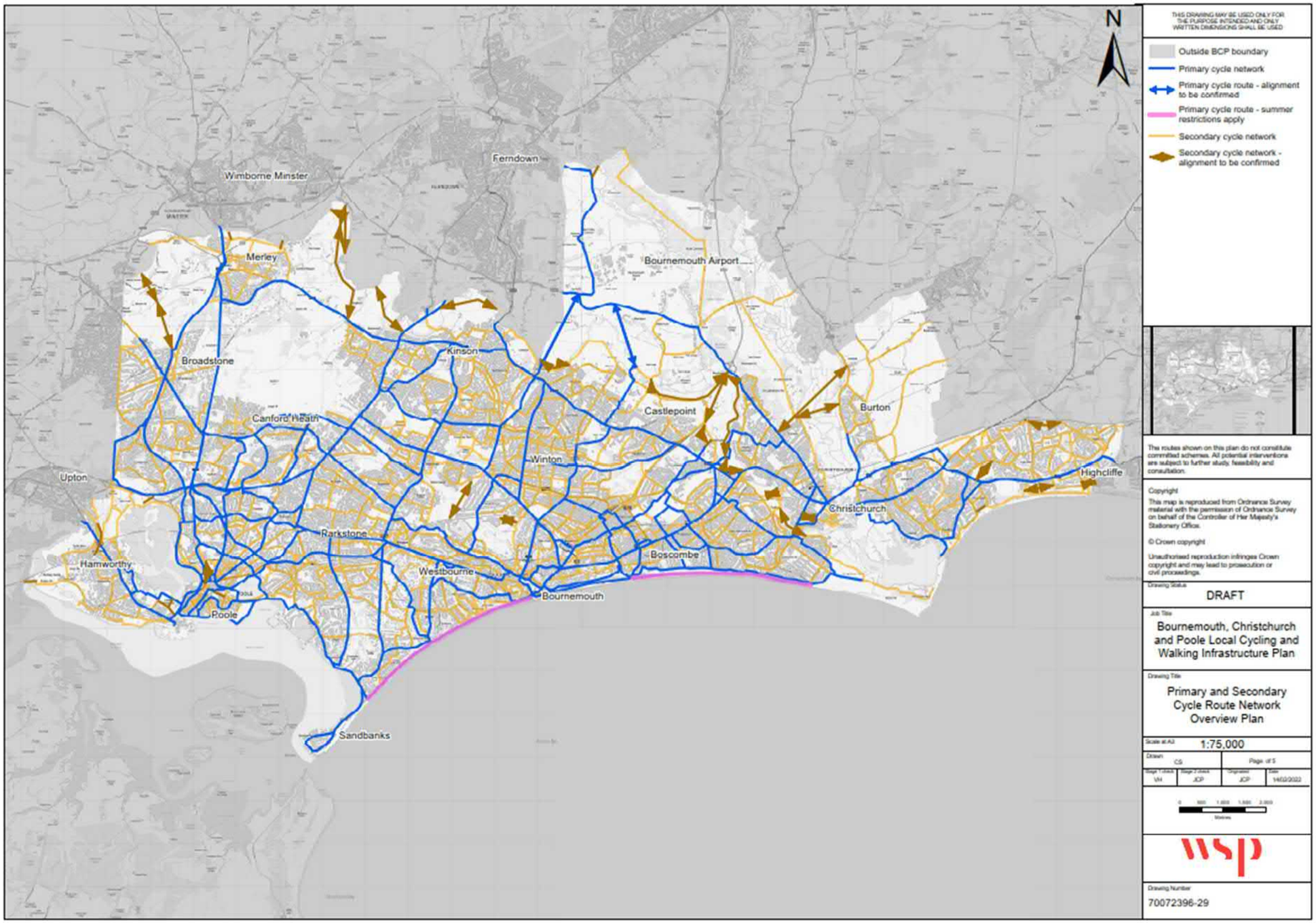
5.3.6. The resultant network plan is shown in Figure 5.1. Appendix F shows the network in more detail on five sheets.

Route auditing and identifying improvements

5.3.7. Route auditing has not been undertaken to date for secondary cycle routes. As stated above, the secondary cycle network makes significant use of streets which are currently, or have the potential to be, low-traffic, low-speed environments. Areas which meet these criteria are sometimes referred to a Liveable Neighbourhoods.

5.3.8. Analysis was carried out into which parts of the BCP area could have the greatest need for, or benefit most from, Liveable Neighbourhood measures. The results of this are set out in Chapter 7.

Figure 5.1 – Secondary Cycle Route Network Plan



6 Stage 4: Network Planning for Walking

6.1 Establishing Core walking zones and key walking routes

Overview

6.1.1. The Technical Guidance states that, in planning for walking, local authorities should identify:

- Core Walking Zones; and
- Key Walking Routes.

6.1.2. The guidance gives authorities flexibility in the way they define these zones and routes.

Core Walking Zones

6.1.3. Core Walking Zones are defined in the guidance as areas in which many walking trip generators are located close together, such as a town centre or business park. Within a Core Walking Zone, all pedestrian infrastructure is particularly important. For the BCP LCWIP, the Core Walking Zones are focused on the authority's town and district centres. These are the destinations for a range of journey purposes and designating them in the LCWIP supports post-Covid recovery.

6.1.4. The zones and routes were also identified with reference to the footway hierarchy concept outlined in the Roads Liaison Group document entitled Well-Managed Highway Infrastructure: A Code of Practice.

6.1.5. **Table 6.1** describes how the Code of Practice categories mapped across to the chosen Core Walking Zones and Key Walking Routes.

6.1.1. Figure 6.1 illustrates the location and boundaries of the chosen Core Walking Zones and the Key Walking Route network.

6.1.2. Two tiers of Core Walking Zone were identified to align with the footway hierarchy and provide balanced coverage across the BCP area. The extent and location of the Core Walking Zones were based on boundaries identified in adopted planning policies. These were mostly town centre and district centre designations, but the Adastral Square local centre was included to ensure more balanced coverage of Tier 2 Core Walking Zones in Poole.

Key Walking Routes

6.1.3. The Technical Guidance defines Key Walking Routes as important pedestrian routes which serve the Core Walking Zone within a distance of around 2km. For the BCP LCWIP Key Walking Routes connecting major residential areas within a 2km radius of the Tier 1 Core Walking Zones were identified. These are illustrated on the overview plan in Figure 6.2 and the three plan sheets in Appendix H. The tables in Appendix H describe the routes and extent of the Key Walking Routes serving the Tier 1 CWZs of Bournemouth, Christchurch and Poole.

Table 6.1 – Identification of Core Walking Zones and Key Walking Routes

Code of Practice Footway Hierarchy Category and Description	LCWIP Designation	Locations and Routes Chosen for BCP LCWIP
Prestige Walking Zones - Very busy areas of towns and cities with high public space and streetscene contribution.	Core Walking Zones – Tier 1	Town Centres - Bournemouth, Christchurch & Poole
Primary Walking Routes - Busy urban shopping and business areas and main pedestrian routes	Core Walking Zones – Tier 2	District Centres – Ashley Cross, Boscombe, Boscombe East, Broadstone, Castlepoint, Charminster, Highcliffe, Kinson, Moordown, Springbourne (Holdenhurst Road), Southbourne Grove, Tuckton, Upper Parkstone, Westbourne, Winton, Wallisdown Local Centres – Canford Heath (Adastral Square)
Primary Walking Routes - Busy urban shopping and business areas and main pedestrian routes	Key Walking Routes	Main pedestrian routes connecting to, and within a 2km radius of, Tier 1 Core Walking Zones

Figure 6.1 – Tier 1 and Tier 2 Core Walking Zones

Figure 6.2 – Tier 1 Core Walking Zones and Key Walking Route Network Plan

6.2 Route Audits

6.2.1. In similarity to the network planning for cycling, after having identified the network of Key Walking Routes the next step was to undertake route auditing, including site visits.

6.2.2. The walking audits used the DfT's Walking Route Audit Tool (WRAT). This identified the current quality of existing infrastructure along routes and identified where improvements were needed.

6.2.3. The audit comprises 20 criteria grouped into five themes (attractiveness, comfort, directness, safety and coherence). Auditors are required to give a score for each criterion of between 0 and 2, where 2 represents good provision and 0 represents poor provision. From these 20 criteria a total score was derived. The accompanying notes to the tool indicate that a score of 70% (i.e. a score of 28 out of a potential 40 points) should normally be regarded as a minimum level of provision overall. Routes which score less than this, and factors which are scored as zero, should be used to identify where improvements are required.

6.2.4. Consistent with to the approach adopted for cycle routes, audits were carried out for Key Walking Routes which were identified for potential Transforming Cities Fund investment.

6.2.5. The site visits involved walking the route, noting key issues and taking photographs. The audit findings fed into, and influenced, the design process undertaken for the corridors which subsequently secured funding from the Transforming Cities Fund for improvements.

6.2.6. The key findings in terms of suitability of the Key Walking Routes included the following:

- Attractiveness theme:
  - Walking routes with limited or no passive surveillance (overlooking from neighbouring land uses), such as in subways;
  - Walking routes which are within Air Quality Management Areas (where levels of nitrogen dioxide has been recorded which exceeds the limits outlined in the National Air Quality Strategy), or are within Noise Important Areas, which is a designation based on modelled levels of road traffic noise;
  - Walking routes without street trees or planting to enhance the walking environment, provide shade or shelter and absorb carbon dioxide;
- Comfort theme:
  - Footways in poor condition, damaged paving slabs and uneven surfaces, creating potential trip hazards;
  - Overhanging vegetation, obstructing footways or reducing available space for walking;
  - Motor vehicles parked on footways;
  - Narrow footways, or footways where the usable space is reduced by direction signs, street lighting columns or bus stop shelters;
  - Crossing locations requiring people to divert from their intended desire line and walk further than necessary;
  - Some walking routes with significant distances between crossing points on roads with heavy motor traffic flows;
- Directness theme:
  - Wide roads which result in longer crossing distances for people walking;
  - Delays for people crossing busy main roads where there are no zebra or signal crossings; and
  - No formalised pedestrian priority when crossing side roads.
- Safety theme:
  - People walking on narrow footways in close proximity to heavy motor traffic flows or motor vehicles travelling at high speeds, or coming into potential conflict with cyclists on a shared-use path;
- Coherence theme:
  - Road crossings without dropped kerbs or tactile paving to assist blind, partially sighted and mobility impaired pedestrians.

7 Liveable Neighbourhood Analysis

7.1 What are Liveable Neighbourhoods?

7.1.1. LCWIPs were initially conceived as primarily a route-based approach to planning networks of cycling and walking routes. More recent government guidance in LTN 1/20 and Gear Change has emphasised the importance of area-based solutions to create Liveable Neighbourhoods (sometimes referred to as Low-Traffic Neighbourhoods). There is no one definition of a Liveable Neighbourhood. Figure 7.1 outlines the relevant text from Gear Change below.

Figure 7.1 – Gear Change Vision on Liveable Neighbourhoods

> **There will be less rat-running and many more low-traffic neighbourhoods**
>
> Residential side streets across the country can be blighted by rat-running. Low-traffic neighbourhoods will be created in many more groups of residential streets by installing point closures – for example, bollards or planters – on some of the roads. It would still be possible to access any road in the area, but motor traffic would not be able to use the roads as through routes. Streets within low traffic neighbourhoods will provide clear, direct routes for cyclists and pedestrians promoting walking and cycling. Accidents, pollution and noise will be dramatically reduced for residents.

7.1.2. The areas tend to share characteristics in terms of being networks of largely residential streets where:

- Most people feel safe and comfortable cycling and walking, due to low motor traffic speeds and flows;
- Motor vehicle access is maintained for residents, businesses and visitors; and
- The street environment is attractive, with low levels of traffic-related noise and air pollution.

7.1.3. Potential interventions to support and achieve these outcomes include (in alphabetical order):

- Cycle parking;
- Footway and crossing improvements to prioritise walking;
- Improvements to quality of the public space, including enhanced paving, and parklets, which use roadspace for planting and seating;
- 'Modal filters', which are measures to prevent non-local through-traffic whilst retaining motor vehicle access to all properties and, where applicable, enable bus services to pass through. These can for example be in the form of bollards, planters or traffic restrictions (at certain times or at all times), enabling access to certain vehicle types only;
- School streets, which are timed road closures to through motor traffic and parking restrictions close to schools at pick-up and drop-off times, to improve road safety;
- Seating;
- Speed limit reductions and features to calm traffic speeds; and
- Trees and planting.

7.1.4. Whilst area-based analysis is not a discrete stage in the LCWIP process, Liveable Neighbourhood measures can help to create safe and direct cycling and walking networks. Analysis was therefore undertaken to consider the potential for implementing Liveable Neighbourhood concepts across the BCP authority area.

7.2 Guidance

7.2.1. Guidance from the government in LTN 1/20 and the Network Management Duty Guidance (initially issued during the Covid-19 pandemic) identifies that:

- effective engagement with the local community is essential to ensure the political and public acceptance of any scheme, particularly at an early stage, and is good practice even where there is no legal requirement to carry it out;
- the use of trials is recommended as a means of understanding potential impacts of introducing schemes, with suitable advance notification of the trial; and
- monitoring and engagement before, during and after the trial should be undertaken to understand the different impacts arising from the scheme.

7.3 Introduction to analysis

7.3.1. A two-stage process was used to identify locations that could have the greatest need for, or benefit most from, Liveable Neighbourhood measures. The two stages were as follows:

- Stage 1: Identifying Potential Liveable Neighbourhood Areas; and
- Stage 2: Suitability Assessment.

7.4 Analysis stage 1: Identifying potential Liveable Neighbourhood areas

7.4.1. A mapping exercise was undertaken to consider which areas might be suitable as Liveable Neighbourhoods. Reference was made to available guidance published by Living Streets and Transport for London but took account of the local context and geography of in the BCP area.

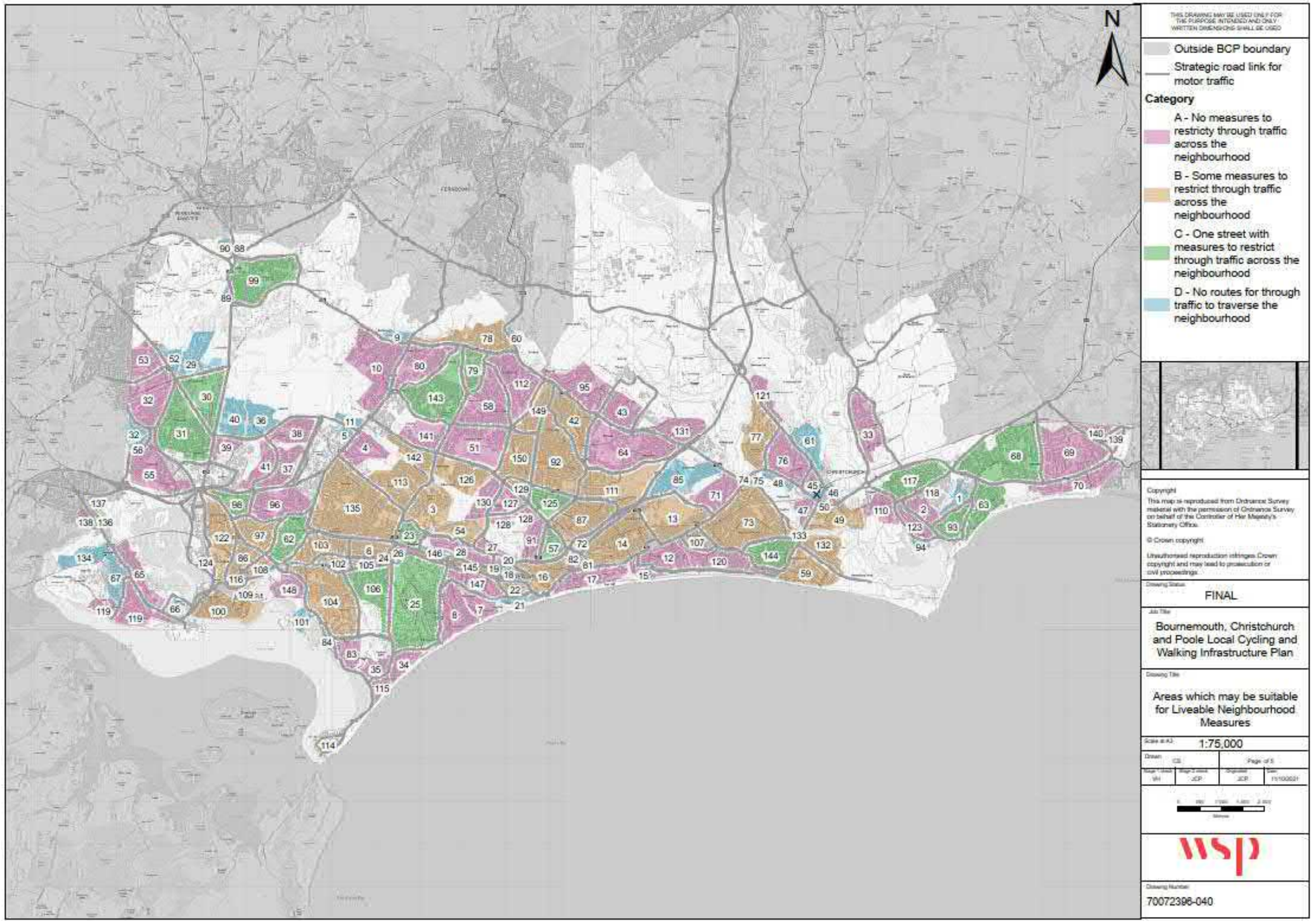
7.4.2. The starting point was to identify severance lines comprising:

- Roads which are considered to be strategically important for motor vehicle traffic circulation:
  - A- and B-road networks; and
  - In areas where the A- and B-road networks are less dense, other roads which are considered to have a strategic traffic circulation function; and
- Other physical barriers to movement, such as rivers and railway lines.

7.4.3. All streets not identified by the process above were then included as part of a potential Liveable Neighbourhood area. The plan of potential Liveable Neighbourhood areas was refined in response to feedback from Council officers.

7.4.4. The methodology above identified a total of 150 potential Liveable Neighbourhood cells, each of which was assigned a reference number for analysis. The location and extent of the identified cells are shown in Figure 7.2 . This is intended to guide further analysis and is not definitive. The plan also indicates which of the areas already have some Liveable Neighbourhood infrastructure in place.

Figure 7.2 - Potential Liveable Neighbourhood Cells



7.5 Analysis Stage 2: Suitability Assessment

Methodology

7.5.1. The second stage of analysis then considered which areas could have the greatest need for, or benefit most from, Liveable Neighbourhood interventions. A workshop was held with Council officers to identify criteria to be used, with reference made to published Liveable Neighbourhood assessments by Transport for London, London Borough of Lambeth and Bath and North East Somerset Council. The chosen criteria covered:

- An assessment of the strategic case for intervention – considering the transport-related problems currently experienced in each area, the degree to which Liveable Neighbourhoods might enable active travel to local facilities and whether they would enable the delivery of primary cycle routes; and
- Analysis of potential beneficiaries.

7.5.2. Table 7.2 and Table 7.3 summarise the 'strategic case' and 'potential beneficiaries' criteria. Each criterion was assessed on a 5-point scale for consistency. 45 was the highest possible score, representing areas which may be most suitable for Liveable Neighbourhood measures.

7.5.3. The potential Liveable Neighbourhood areas vary in size significantly, and some of the suitability assessment criteria can favour larger areas (as, all other things being equal, larger areas would tend to have a greater population, for example). On that basis and where relevant to the criteria, the areas were assessed on a 'per square kilometre' basis to avoid unduly favouring larger areas.

Results

7.5.4. Table 7.3 sets out the results of the stage 2 analysis, identifying the areas which may be most suitable for Liveable Neighbourhood measures. Figure 7.3 identifies the locations of the potential Liveable Neighbourhood areas listed in the table. In broad terms the analysis identified that some areas close to Bournemouth and Poole town centres, parts Boscombe, Ensbury Park, Hamworthy, Parkstone, Southbourne and Winton were potentially most suitable for Liveable Neighbourhood measures.

7.5.5. Further work will be required to better understand the nature of the transport problems in each area and the best possible solutions (which may include Liveable Neighbourhood measures). Extensive engagement with communities will form a key part of this process.

Table 7.1 – Criteria used for Liveable Neighbourhood Suitability Assessment – Strategic case

Criteria	Description	Data Source	Assessed on per Square Kilometre Basis
Local facilities	Number of local facilities accessible within or adjacent to potential Liveable Neighbourhood area. Considers all *Centres and Retail* and *Healthcare* destinations identified in Table 3.1	Desktop research	Yes
Primary cycle routes enabled	Length of primary cycle routes within potential Liveable Neighbourhood areas	Map Analysis based on Figure 4.3 and Figure 7.2	No
Primary cycle routes enabled (avoiding constraints)	Number of primary cycle route sections mapped to roads along the boundaries of potential Liveable Neighbourhood areas and which are unlikely to have sufficient space to accommodate cycle tracks alongside footways and one traffic lane in each direction	Map Analysis based on Figure 4.3, Figure 7.2 and high-level assessment of available highway width	No
Recorded road collisions	Total number of recorded cycle or pedestrian casualties within the potential Liveable Neighbourhood area, weighted by severity	Department for Transport	Yes
Speeding issues	Number of locations used for Speed Indicator Devices within potential Liveable Neighbourhood areas	BCP Council Road Safety Team	Yes
Through traffic (using traffic flows as a proxy)	Number of through traffic routes available within the potential Liveable Neighbourhood area and the volume of vehicles using them	Accessibility Classification Plans prepared as part of LCWIP (Appendix C)	No

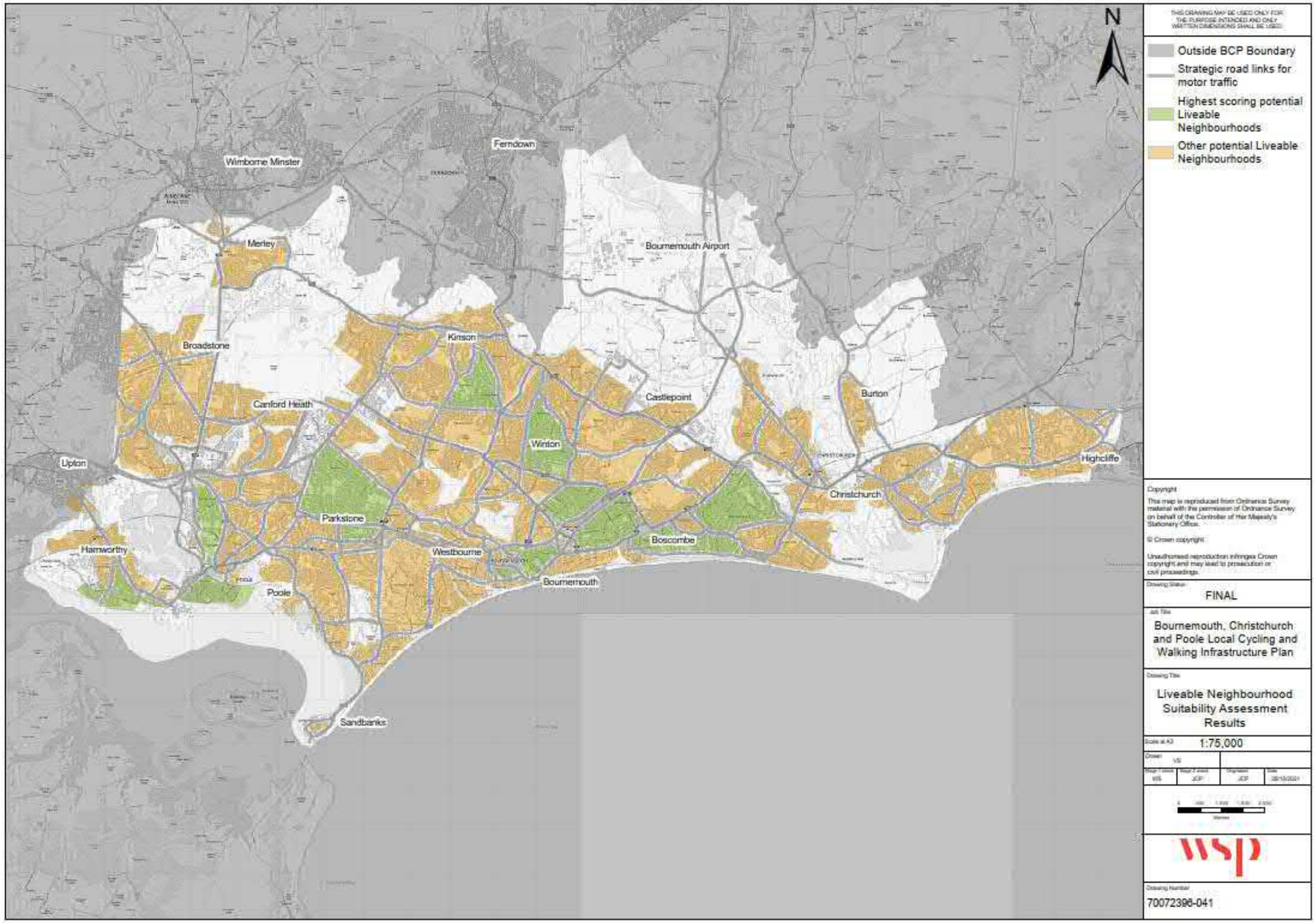
Table 7.2 - Criteria used for Liveable Neighbourhood Suitability Assessment – Potential Beneficiaries

Criteria	Description	Data Source	Assessed on per Square Kilometre Basis
Deprived communities	Average deprivation score for Lower Super Output Areas covered by the potential Liveable Neighbourhood area, weighted by proportion of area covered	Ministry of Housing, Communities & Local Government Index of Multiple Deprivation	No
Resident Population	Total population resident within the proposed cell	Mid-2019 population based on residential postcodes	Yes
School students	Total number of pupils/students attending schools within the potential Liveable Neighbourhood area	Department for Education school roll data for 2019/20 and desktop research	Yes

Table 7.3 – Liveable Neighbourhood Suitability Assessment – Top Scoring Areas

Area Reference	Area Covered	Boundary Roads or Features
6	Alexandra Park	Ashley Road, Bournemouth Road, Richmond Road
12	Boscombe Central	Palmerston Road, Centenary Way, Ashley Road, Christchurch Road, Woodland Walk, Boscombe Overcliff Drive, Boscombe Cliff Road, Michelgrove Road, Percy Road, Owls Road, Boscombe Spa Road
14	Boscombe North West & Springbourne	Holdenhurst Road, Ashley Road, Centenary Way, Palmerston Road, Christchurch Road, St. Swithun's Road South
16	Bournemouth Central	Wessex Way, Lansdowne Road, Bath Road, Terrace Road, The Triangle, Avenue Road, Bourne Avenue
22	Bournemouth West Hill	Poole Hill, Terrace Road, Exeter Road, Priory Road, Durley Chine Road
49	Christchurch Town Centre	Christchurch Bypass, River Avon, River Stour, Stour Road, Barrack Road
58	East Howe & Ensbury Park	Wimborne Road, East Howe Lane, Leybourne Avenue, Coombe Avenue, Redhill Drive, Columbia Road
73	Iford & West Southbourne	Iford Lane, Carbery Avenue, Southbourne Road, Southbourne Grove, Seabourne Road, Christchurch Road
87	Malmesbury Park	Richmond Park Road, Wessex Way, Lansdowne Road, Charminster Road
92	Moordown & Winton East	Malvern Road, Charminster Avenue, Charminster Road, Alma Road, Wimborne Road
100	Old Town & Baiter	West Street, Hunger Hill, railway line, Poole Harbour
119	South Hamworthy & Lake	Blandford Road, Poole Harbour, Hamworthy branch rail line, Lake Road
120	Southbourne South	Christchurch Road, Parkwood Road, Woodside Road, Southbourne Grove Road, Southbourne Road, Belle Vue Road, Southbourne Overcliff Drive, Woodland Walk
122	Stanley Green	Wimborne Road, Towngate Bridge, rail line, Stanley Green Road and Fleets Lane
135	Upper Parkstone & Rossmore South	Ringwood Road, Herbert Avenue, Alder Road, Ashley Road, Sea View Road

Figure 7.3 – Liveable Neighbourhood Suitability Assessment - Results



Note: Top scoring areas and their references are listed in Table 7.3 and cell references are shown on the plan in Figure 7.3

8 Stage 5: Prioritising Improvements and Delivery Plans

8.1 Introduction

8.1.1. Much of the money that councils invest in new transport infrastructure is awarded from central government. In many cases government requires councils to competitively bid for this money. This makes it important to have a set of proposals identified in advance of funding being announced.

8.1.2. Stage 5 of the LCWIP process is to prioritise the identified cycling and walking improvements, with the key output being a prioritised programme of improvements (a Delivery Plan). A prioritisation exercise was undertaken to consider which interventions should form the short, medium and long-term BCP LCWIP investment programme. The Technical Guidance identifies three categories as follows:

- Shorter-term: improvements which can be implemented quickly or are under development;
- Medium term: improvements where there is a clear intention to act, but delivery is dependent on further funding availability or other issues (e.g. detailed design, securing planning permissions, land acquisition, etc); and
- Longer-term: more aspirational improvements or those awaiting a defined solution.

8.1.3. The prioritisation is intended to be indicative and flexible, to take account of available funding and changes in circumstances. An approach which prioritises whole corridors is likely to give greatest benefits, but this is reliant on securing large-scale funding.

8.2 Overview of prioritisation approach

8.2.1. In most cases cycling and walking infrastructure will be improved jointly as part of a package approach to ensure value for money and efficiency. The following approach was adopted for prioritisation:

- Analysis was undertaken to outline the approximate order in which primary cycling routes should be taken forward for major scheme development and funding bids; and
- Analysis was undertaken to identify improved crossings over main roads, which benefit people walking and help to deliver secondary cycle routes.

8.2.2. To date an equivalent prioritisation process has not been undertaken for the Core Walking Zones and Key Walking Routes. This will be considered in future updates to the LCWIP

8.2.3. Other points of note for the prioritisation are set out below:

- Additional schemes will continue to be identified outside of the LCWIP prioritisation approach to improve the primary and secondary cycle network, Core Walking Zones and Key Walking Routes, and routes not on the identified network plans. This will include infrastructure funded by developers or identified as part of regeneration or seafront enhancement programmes, for example;
- The Liveable Neighbourhood analysis identified areas that may be most suitable for measures to support and enable cycling and walking; and
- As well as the corridor itself, the package approach would also improve connections to and across the corridor.

8.3 Prioritising Strategic Improvements

Overview

8.3.1. The prioritisation considered ‘effectiveness’, ‘policy’ and ‘deliverability’ factors as illustrated in the Technical Guidance. The process comprised the following three elements:

- Strategic case assessment, which assessed the ‘effectiveness’ and ‘policy’ themes;
- Division of route corridors, to enable deliverability assessment; and
- Deliverability assessment.

8.3.2. The prioritisation process favours schemes which are considered to be both of high strategic importance and with limited deliverability issues.

8.3.3. The process followed is described in the sections below.

Strategic case assessment

Methodology

8.3.4. The primary cycle routes shown in Figure 4.3 were assigned reference numbers. A single reference was assigned to longer corridors of primary cycle route which terminated in major destinations (e.g., from Poole Town Centre to Bournemouth Town Centre), rather than shorter sections of route. This was both to simplify the analysis and emphasise the importance of creating cycle routes which serve end-to-end destinations. As a result, some route references overlap with each other for part of their length.

8.3.5. The primary cycle route corridors were ranked by assessing their likely impact against a range of criteria. The criteria, the data used, and metrics applied are set out in Table 8.1. These criteria covered the ‘effectiveness’ and ‘policy’ theme in the prioritisation example illustrated in the Technical Guidance.

8.3.6. Each criterion was scored on a five-point scale, and each were given an equal weighting. This means the highest potential score for a corridor was 30.

8.3.7. The primary cycle route corridors varied significantly in length. To ensure that the assessment process did not favour longer distance routes (which would tend to be in close proximity to more homes, key employment areas, and so on), the results were reported on a ‘per kilometre’ basis where appropriate.

Outcome

8.3.8. Figure 8.1 illustrates the rank of all primary cycle route corridors. The 23 routes shown in dark green (with scores between 24 and 21) and light green (scores between 20 and 18) were the highest scoring corridors. These were assessed as having the strongest strategic case for implementation and these routes are described in Table 8.2, along with their scores and ranking.

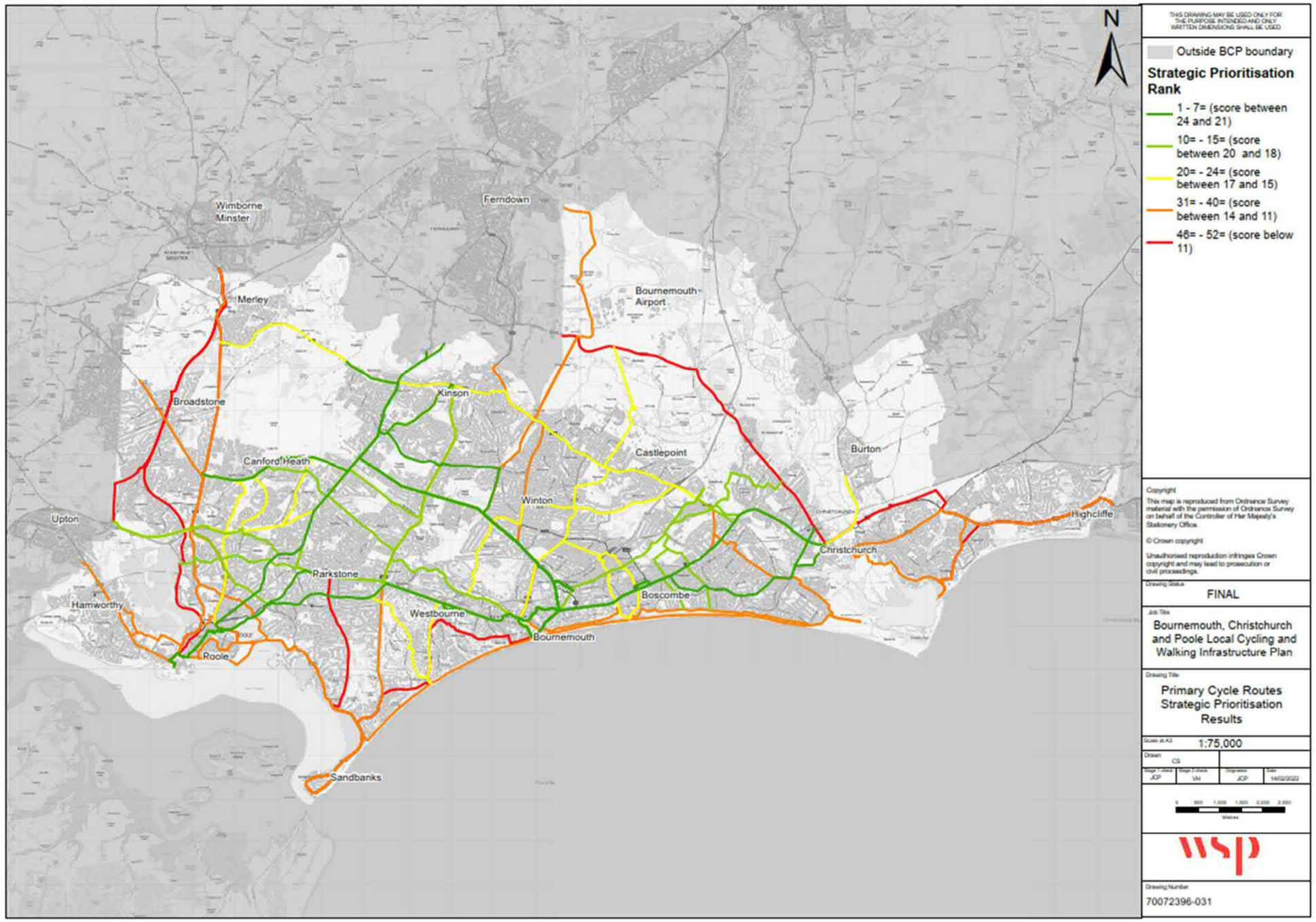
Table 8.1 – Primary Cycle Routes Assessment – Criteria

Criteria	Metric Applied	Data Used	Assessed per km?
Congestion	Total number of congestion hotspots within 50m of the route	Congestion Report Phase 1, prepared for the Dorset LEP	Yes
Deprived Communities	Average deprivation score for Lower Super Output Areas within 500m of the route, weighted by proportion of catchment covered	Department for Levelling Up, Housing and Communities Index of Multiple Deprivation	No
Population	Total population within 500m of the route (based on postcode centroids)	Experian Mosaic postcode population (mid-2019)	Yes
Forecast numbers of potential future users	Total number of potential cyclists along the route	PCT e-bike scenario for commuter trips and Go Dutch scenario for school trips	Yes
Road safety	Total number of cycle casualties within 50m of the route, weighted by severity (slight - 1, severe - 5, fatal - 10)	Department for Transport STATS19 collision data	Yes
Strategic locations accessed	Proximity of routes within 500m to selected leisure and recreation sites, development sites, rail stations, and university sites	Desktop research	Yes

Table 8.2 – Primary Cycle Routes Assessment – Top Scoring Routes

Score	Rank	Route Description
24	1	C7 - Christchurch town centre to Bournemouth town centre, via Iford Bridge & Boscombe town centre
23	2	P8 - Poole town centre to Upper Parkstone, via Civic Centre and North Road
22	=3	U4 - Talbot Campus to Lansdowne via Cemetery Junction
22	=3	B12 - Bournemouth town centre to West Howe, via Cemetery Junction & Columbia Road
22	=3	B11 - Bournemouth town centre to Magna Road via Cemetery Junction, Talbot Campus & Wallisdown
22	=3	C6 - Christchurch town centre to Bournemouth town centre, via Tuckton, Southbourne & Boscombe town centre
21	=7	B10 - Bournemouth town centre to Darby's Corner Roundabout, via Talbot Campus & Wallisdown
21	=7	B6 - Bournemouth town centre to Lower Hamworthy, via Branksome, Ashley Cross & Poole town centre
21	=7	P6 - Poole town centre to Kinson, via Ringwood Road
20	=10	B14 - Bournemouth town centre to Darby's Corner Roundabout, via Cemetery Junction, Wallisdown and Bourne Valley
20	=10	B7 - Bournemouth town centre to Holes Bay, via Branksome & Dorchester Road
19	=12	U1 - Talbot Campus to Kinson via Wallisdown
19	=12	H4 - Royal Bournemouth Hospital to Overcliff Drive via Littledown and Woodland Walk / Southbourne
19	=12	B8 - Bournemouth town centre to Upton, via Branksome, Ashley Road & Fleetsbridge
18	=15	B9 - Bournemouth town centre to Canford Heath via Newtown
18	=15	O10 - Fleets Corner to Civic Centre, via New Inn Junction and the Shah of Persia
18	=15	U6 - Talbot Campus to Upper Parkstone, via Wallisdown, Alder Road & Pottery Junction
18	=15	B3 - Bournemouth town centre to Jumpers Common area, via King's Park & Springbourne
18	=15	H2 - Royal Bournemouth Hospital to Christchurch town centre via Iford Bridge
17	=18	O5 - Charminster Road to Boscombe via Malmesbury Park & Springbourne
17	=18	O9 – Westbourne to Branksome Chine via The Avenue
17	=18	U5 - Talbot Campus to Bournemouth town centre via Glenferness Avenue & Upper Gardens
17	=18	U7 - Talbot Campus to Darby's Corner, via Wallisdown, Mountbatten Arms & Canford Heath

Figure 8.1 – Primary Cycle Routes Assessment – Results



Division of route corridors

8.3.9. In order to assess the deliverability of the primary cycle routes, they were split into sections for the following reasons:

- The strategic assessment did not take account of sections of primary cycle route corridors which will be delivered as part of committed schemes;
- It is acknowledged that the complexity of delivering enhanced cycling and walking infrastructure can vary considerably along a corridor; and
- The primary cycle route corridors overlap in several locations, and therefore splitting them into sections ensures that each section is only assessed once.

8.3.10. Figure 8.2 shows the resulting 70 route sections used for the step 3 deliverability assessment.

Deliverability Assessment

Methodology

8.3.11. Each primary cycle route section was assessed against deliverability and feasibility criteria.

8.3.12. The set of criteria used in this assessment is listed in Table 8.3. Each criterion was scored on a 3-point scale and weighted equally, resulting in scores ranging from 4 to 12, with a score of 4 representing routes that are the easiest to deliver and a score of 12 representing routes with the most significant deliverability issues. These criteria covered the 'deliverability' theme in the prioritisation example illustrated in the Technical Guidance.

Table 8.3 – Deliverability Assessment – Criteria

Criteria	Metric Applied
Amount of road space reallocation required	Approximate percentage of route section where existing traffic lanes would need to be reallocated for cycle tracks to deliver primary cycle route infrastructure
Length of pinch points	Are there space constraints which may affect the delivery of the intervention? The approximate length of route section where initial review indicates that there would be insufficient highway width to accommodate a cycle track as well as footways and a traffic lane in both directions.
Overlap with high-frequency bus corridors	Approximate percentage of route section that overlaps with a high-frequency bus corridor (defined as bus corridors with more than 6 buses an hour).
Other deliverability issues	High-level assessment of: ■ Whether private land might be required to deliver the required infrastructure for the primary cycle route; ■ The scale and scope of regulations or consents likely to be required for the primary cycle route (e.g. planning permission, Traffic Regulation Orders or bylaws); and ■ Technical feasibility and complexity, considering if there are particular engineering or network management challenges associated with the intervention and their significance.

Outcome

8.3.13. Table 8.4 lists the route sections with the fewer deliverability issues and Table 8.5 outlines the route sections with the greater deliverability issues. Their locations and scores are shown in Figure 8.2. The assessment of primary cycle routes is an indication of priority, and is to be flexibly applied, rather than being fixed or definitive.

Figure 8.2 – Shortlisted Primary Cycle Route Corridors and Section References

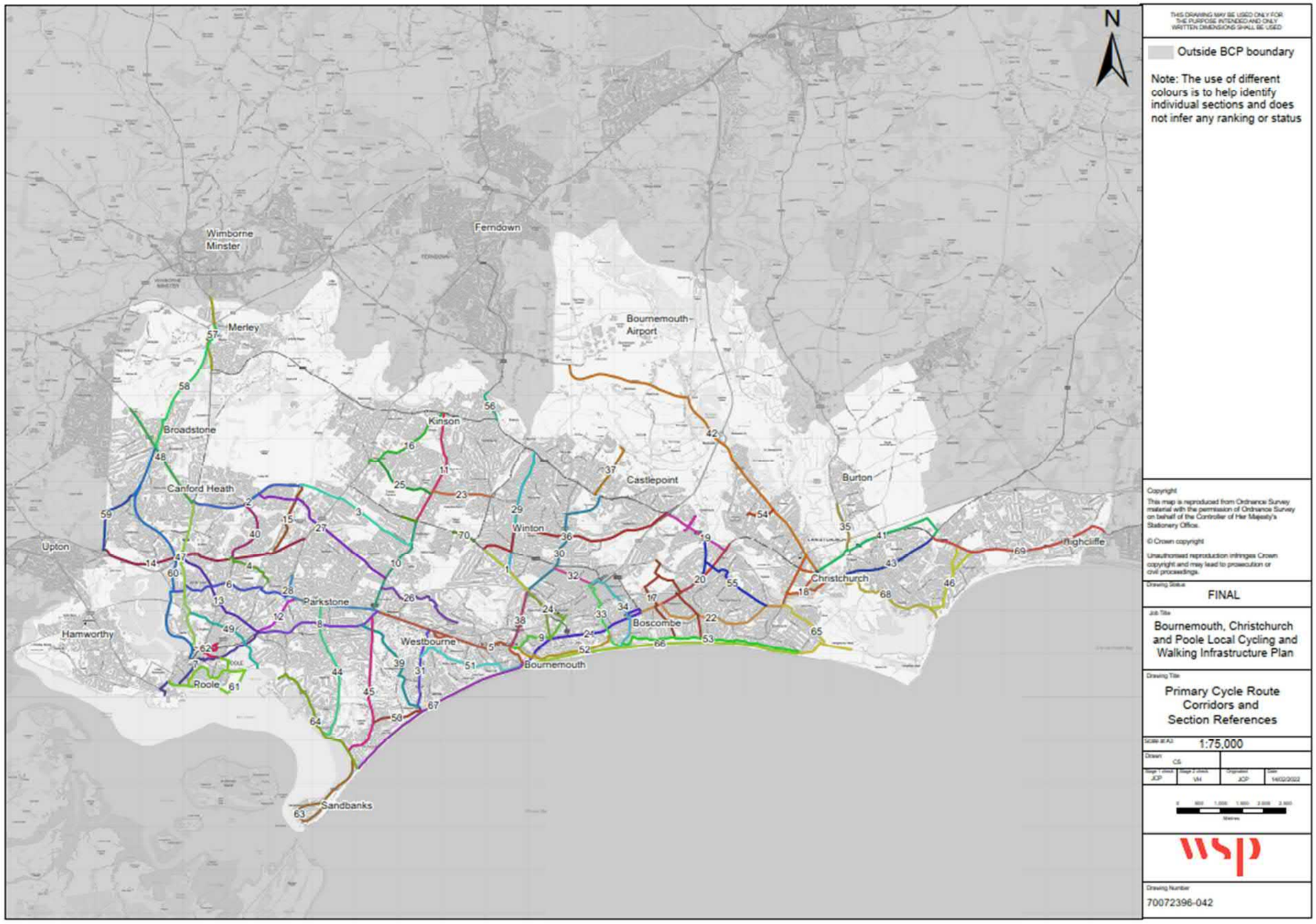


Table 8.4 –Deliverability Assessment Results – Route Sections with Fewer Deliverability Issues

Deliverability Score	Section Reference	Section Description
4	26	Alder Road to Prince of Wales Road
4	58	Broadstone Roundabout to Oakley Lane via Castleman Trailway
5	2	Canford Heath Road
5	3	Canford Way and Bourne Valley (Manning's Heath Road to Alder Road)
5	4	Dale Valley Road, Foxholes Road and Dale Road
5	32	Charminster Road to Wessex Way (Malmesbury Park)
5	37	Castle Lane East to Throop Lane
5	59	Upton Road to Beechbank Avenue via Roman Road and Castleman Trailway
6	16	Poole Lane (Kinson to West Howe)
6	19	Castle Lane East
6	25	Turbary Park Avenue
6	33	Wessex Way to Boscombe Seafront via Cleveland Road
6	34	Wessex Way to Boscombe Seafront via Palmerston Road
6	35	Stony Lane Roundabout to Burton
6	40	Adastral Road
6	41	Fountain Roundabout to Somerford Roundabout via Christchurch Bypass
6	52	Bournemouth Town Centre to Boscombe via East Overcliff Drive
6	64	Parkstone Bay to Sandbanks

Table 8.5 –Deliverability Assessment Results – Route Sections with Greater Deliverability Issues

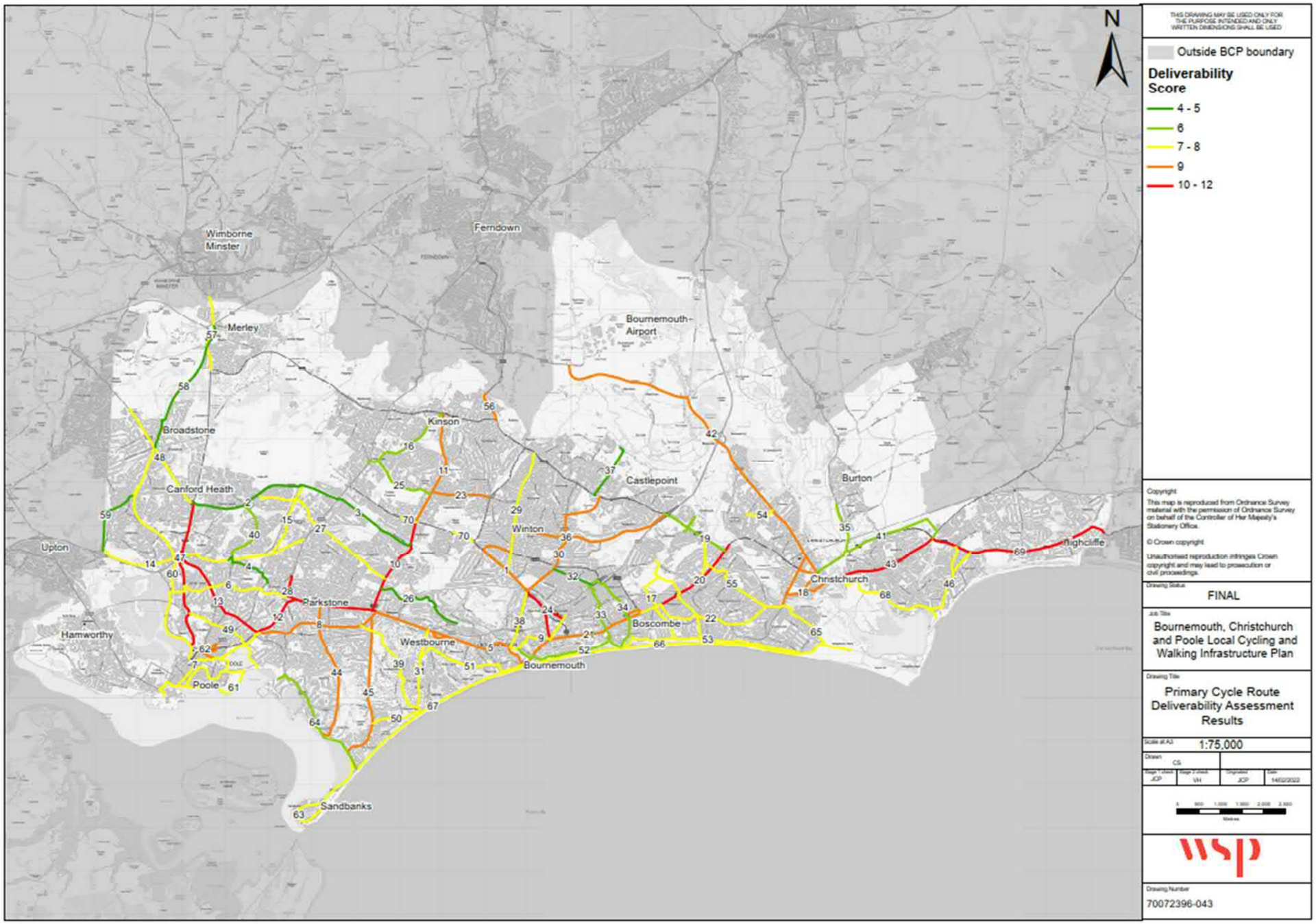
Deliverability Score	Section Reference	Section Description
10	10	Alder Road between Pottery Junction and Wallisdown Crossroads
10	12	North Road
10	20	Christchurch Road (Pokesdown to Iford Bridge)
10	24	Cemetery Junction to Bournemouth Station
10	47	Poole Town Centre to Darby's Corner Roundabout via Fleet's Corner
11	28	Ashley Road and Sea View Road
11	43	Fountain Roundabout to Somerford Roundabout via Somerford Road
11	69	Somerford Roundabout to Walford Brook
12	13	Wimborne Road and Fernside Road between Fleet's Corner and Civic Centre Gyratory

Comparison of strategic importance versus deliverability

8.3.14. In compiling the Delivery Plan it was important to prioritise route sections that are both easier to deliver and of high strategic importance (or that strike a balance between the two).

8.3.15. The strategic case assessment comprised six criteria and the deliverability assessment comprised four criteria. To enable a balanced assessment, the deliverability assessment score was factored up by 1.5. The resulting combined strategic case assessment and deliverability assessment score then informed the Delivery Plan.

Figure 8.3 – Deliverability Assessment - Results



Delivery Plan

8.3.16. Based on the above prioritisation, an indicative Delivery Plan Schedule for major cycling and walking route investment was developed, as outlined in Table 8.6 to Table 8.9. This sets out:

- Where – a description of the route and section identified for investment, and whether it includes part of a Core Walking Zone or Key Walking Route;
- What – the broad scope of infrastructure anticipated to be required;
- When – over what approximate timescale the investment is anticipated (short-term, medium-term, medium- to longer-term and long-term); and
- How Much – an approximate high-level indicative cost estimate for the infrastructure.

8.3.17. Where available, existing cost estimates were used. For other elements of the delivery plan, estimates were prepared, based on costs for the first quarter of 2022. These were developed as follows:

- Using a first principles approach to quantify the major items of work and applying unit rates from industry standard published data, adjusted for working in and around the live carriageway; and
- Informed by cost allowances from previous schemes.

8.3.18. To provide a consistent approach at this early stage, the estimates assumed that segregated cycle tracks would be required on all parts of the primary cycle network. The estimates also factor in likely requirements for redesigning major junctions and, where relevant, new bridge structures. The cost estimates include allowances for preliminaries, traffic management, utilities and professional fees. They do not include values to reflect optimism bias, VAT, any purchase of land in private ownership and inflation beyond the first quarter of 2022.

8.3.19. In addition to the combined prioritisation score, the cost estimates informed the delivery timescales (and assigned implementation periods) assumed for improvements. The objective was to achieve a broadly similar total infrastructure cost in each delivery plan timescale.

8.3.20. Figure 8.4 illustrates the location of each of the LCWIP Delivery Plan proposals and their proposed approximate timescales for implementation. A route following the seafront and harbourside is a priority for leisure, tourism and recreation investment; the funding to improve this corridor may come from different sources to other prioritised routes.

8.3.21. Most of the proposals in the Delivery Plan will require:

- Further study, design and feasibility assessment;
- Public consultation;
- Engagement with elected members and approval from the Portfolio Holder, Cabinet or Full Council; and
- Government funding to be awarded, often following the submission of a business case.

8.3.22. These, and other factors, have the potential to change cost estimates and timescales for delivery.

Figure 8.4 - LCWIP Indicative Delivery Plan

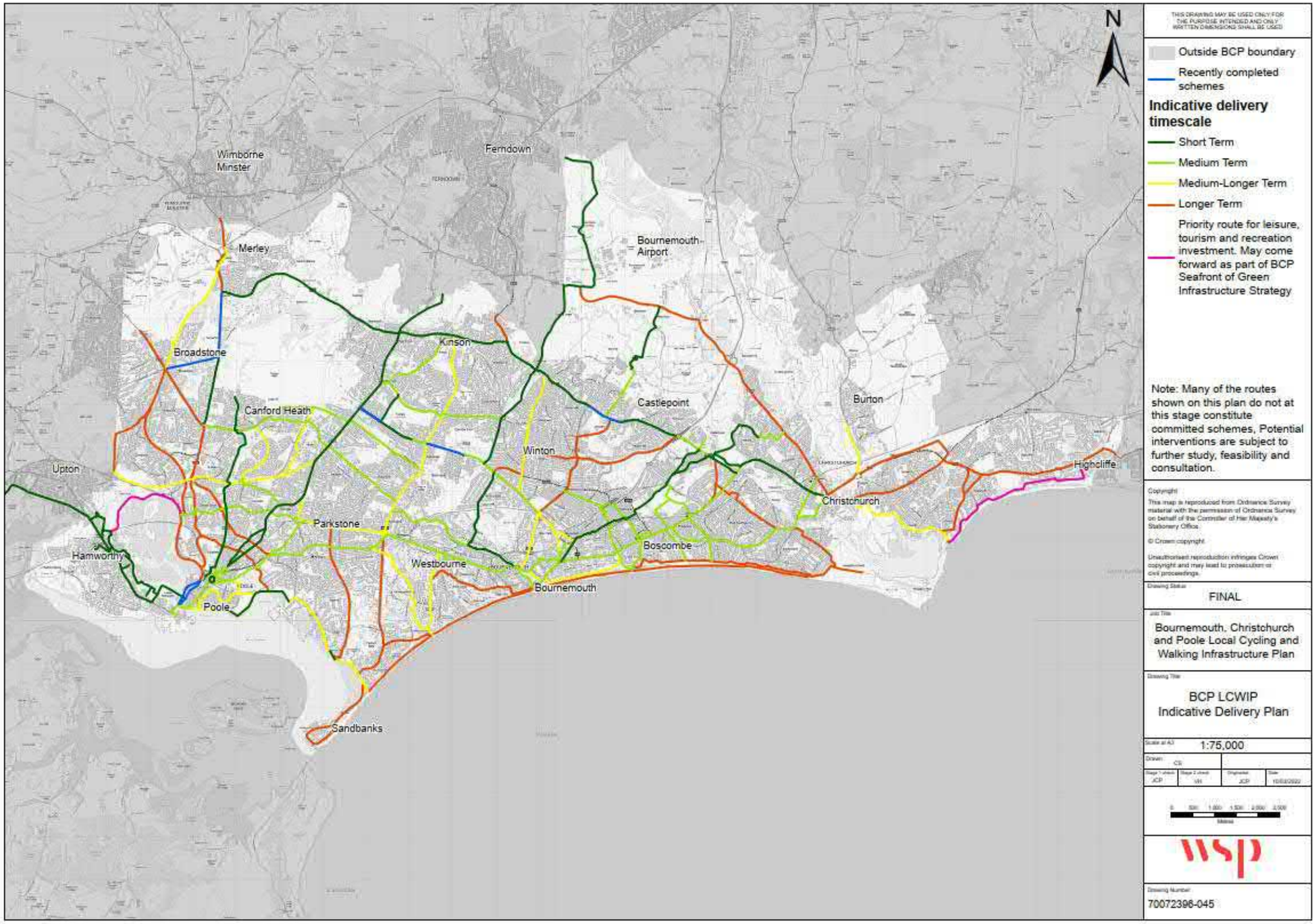


Table 8.6 – Indicative LCWIP Delivery Plan Schedule – Short Term Committed (0-3 years) schemes

Schedule Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
TCF C1	Bournemouth Railway Station to Royal Bournemouth Hospital and Jumpers Common	Cycling and walking improvements along an east-west corridor between Bournemouth and Christchurch. The improvements will serve several schools, Bournemouth AFC's stadium, the Royal Bournemouth Hospital and planned development at Wessex Fields.	Bournemouth Town Centre	n/a	£4,450,000
TCF C2	Bournemouth to Ferndown	Cycling and walking improvements between the Upper Gardens in Bournemouth and Trickett's Cross in Ferndown. Cross-boundary scheme with Dorset Council funded by Transforming Cities Fund.	Bournemouth Town Centre	Upper and Central Gardens, between Queens Road and Avenue Road	£14,750,000
TCF C3	Poole Town Centre to Holton Heath	Cycling and walking improvements between Poole town centre and Holton Heath. upgrades, including crossing and junction improvements, along Blandford Road. The improvements will better connect residential areas on either side of Blandford Road, and a quiet route would utilise residential streets, including Woodlands Avenue and Symes Road, to existing routes through Upton Country Park. Cross-boundary scheme with Dorset Council funded by Transforming Cities Fund.	Poole Town Centre	Rigler Road	£2,600,000
TCF C5	Poole Town Centre to Merley	Cycling and walking improvements between Poole town centre and Merley, running between Wimborne Road in Poole and Canford Heath, and onwards to Merley via an existing link on Gravel Hill, connecting key employment areas and local neighbourhoods. Funded by Transforming Cities Fund.	Poole Town Centre	Wimborne Road	£5,900,000
TCF S5	Poole to Ferndown and Wimborne	Improvements for cycling, walking and bus services between Poole town centre and Ferndown and Wimborne. The route will improve links to key local destinations, including shops and businesses in Poole and Ferndown town centres, industrial estates and business parks including Turbary Retail Park, Poole Hospital, and a number of nearby schools. Cross-boundary scheme with Dorset Council funded by Transforming Cities Fund.	n/a	n/a	£20,500,000
TCF S6	Christchurch to Merley	Improvements for cycling, walking and bus services along an east-west corridor between Merley and Christchurch town centre. The route will improve links to key local destinations, including shops and businesses in Kinson and Christchurch, a number of nearby schools and Castlepoint Shopping Centre. Includes an additional off-road section between Castle Lane West and Bournemouth Aviation Park. Funded by Transforming Cities Fund.	Kinson, Castlepoint	n/a	£18,650,000
LCWIP S01	Wallisdown Road West (Mountbatten Arms Roundabout to Bryant Road)	Sustainable travel improvements including introduction of protected (stepped) cycle tracks, improved footways, new and improved signal crossings and side road entry treatments plus speed limit reduction.	n/a	n/a	£2,103,000

Schedule Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
LCWIP S02	Lansdowne area, Bournemouth	Upgrades to the public realm and additional pedestrian crossings along Holdenhurst Road between Station Roundabout and Lansdowne Roundabout, and at Lansdowne Roundabout itself.	Bournemouth Town Centre	Holdenhurst Road	£8,000,000
ATF 1	Evening Hill, Poole	Make permanent a temporary pop-up protected cycle lane on difficult uphill section of main road. Addition of a new pedestrian crossing and footway widening.	n/a	n/a	£230,000
ATF2	Harbourside Park – between Turks Lane and Green Gardens, Poole	Upgrade of existing narrow shared path, part of NCN 25, to fully segregated parallel paths for people walking and cycling. Two phases.	Poole Town Centre	Harbourside Path	£1,170,000

Note: The Delivery Plan is indicative and subject to change. The Delivery Plan does not include schemes fully funded by developers. As these are committed improvements they were not assessed against the prioritisation criteria.

Table 8.7 - Indicative LCWIP Delivery Plan Schedule – Medium Term (3-7 years) schemes

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
31.5	LCWIP S2 & 3	Canford Heath Road, Canford Way, St Brelades Road and Bloxworth Road between Darby's Corner Roundabout and Alder Hills Roundabout	Segregated cycle track linking the Canford Heath residential areas with existing routes to the Universities' Talbot Campus and Bournemouth Town Centre. This corridor will connect with Schedule references TCF C5 and which link to Poole Town Centre, several industrial estates, a large retail park and several schools.	n/a	n/a	£11,400,000
31	LCWIP S25	Turbary Park Avenue	Cycling and walking improvements linking Poole Lane to Kinson Road, to improve access to local schools, facilities and neighbourhoods. Connects to Schedule reference S5.	n/a	n/a	£2,300,000
30	LCWIP S26	Branksome Recreation Ground to Upper Gardens	Cycling and walking improvements on east-west corridor between Alder Road and Prince of Wales Road, consisting of segregated cycle tracks and traffic-free links	n/a	n/a	£3,300,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
30	LCWIP S9	Bournemouth Square to Bournemouth Railway Station: Old Christchurch Road, Lansdowne Road, Oxford Road	Cycling and walking upgrades connecting Bournemouth Square with the railway station, via Bournemouth University's Lansdowne Campus, incorporating bus route improvements to improve journey times between Bournemouth Square and the Travel Interchange. Major junction improvements at Station Roundabout. Links to Schedule reference TCF C1.	Bournemouth Town Centre	Lansdowne Road, Old Christchurch Road, Oxford Road	£8,700,000
30	LCWIP S16	Kinson to West Howe	Cycling and walking improvements between the local centres of Kinson and West Howe, along Poole Lane, improving routes to local schools. Connects to Schedule reference TCF S5 and TCF S6.	Kinson	n/a	£3,100,000
29.5	LCWIP S4	Oakdale (Dorset Way to Ringwood Road)	Cycling and walking improvements to create safer routes to St Edward's RC & CofE School and connect Canford Heath to Parkstone. Connects to Schedule reference TCF S5.	n/a	n/a	£2,000,000
28.5	LCWIP S21 & S22	Bournemouth to Christchurch	Fully segregated cycle route connecting Bournemouth and Christchurch town centres via Tuckton. Would serve a number of local centres and two rail stations. Includes; segregated cycle tracks and upgrades to several major junctions. Likely to be divided into a number of smaller packages for delivery.	Bournemouth Town Centre, Christchurch Town Centre, Boscombe, Southbourne Grove, Tuckton	Bath Road, Christchurch Road, Tuckton Road, Tuckton Bridge, Stour Road, Willow Drive, Sopers Lane	£23,300,000
28.5	LCWIP S7 & S12	Lower Hamworthy to Upper Parkstone	Sections of strategic cycle route connecting to Poole town centre via a number of local centres. Includes segregated cycle tracks and upgrades to several major junctions.	Poole Town Centre	New Quay Road, Poole Lifting Bridge, Poole Quay, High Street, Kingland Road, Poole Park	£6,700,000
28	LCWIP S70	Wallisdown Road East	Completion of cycling and walking improvements between Boundary and University Roundabouts	n/a	n/a	£4,300,000
27.5	LCWIP S6	Holes Bay to Upper Parkstone	Cycling and walking improvements along east-west corridor through Oakdale, including along Dorchester Road. Connects to Schedule reference TCF Corridor S5	n/a	n/a	£4,700,000
27.5	LCWIP S32	Malmesbury Park (Charminster Road to Wessex Way)	Cycling and walking improvements through Malmesbury Park area.	Charminster	n/a	£1,400,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
27	LCWIP S20	Pokesdown to Iford Bridge	Fully segregated cycle route along Christchurch Road to connect Bournemouth and Christchurch town centres. Connects to Schedule reference S6.	Boscombe East	Christchurch Road	£6,200,000
27	LCWIP S19	Castle Lane East	Cycling and walking improvements to Castle Lane East between Cooper Dean Roundabout and Iford Roundabout and, to improve access to Royal Bournemouth Hospital and proposed employment at Wessex Fields. Complements Schedule reference TCF S6.	n/a	Castle Lane East	£4,800,000
26.5	LCWIP S23	Kinson Road to Ensbury Park	Cycling and walking improvements linking Kinson Road to Ensbury Park. Connects to Schedule reference TCF C3.	n/a	n/a	£2,000,000
26.5	LCWIP S1	Lansdowne to Talbot Campus Cycle Route 1: Boundary Roundabout to Cemetery Junction	First section of segregated cycle route along Talbot Avenue to connect the two main University campuses, and link to Bournemouth Railway Station and Travel Interchange. Connects to Schedule reference TCF C2.	n/a	Talbot Avenue	£5,500,000
26.5	LCWIP S17	Littledown to Overcliff Drives	Cycling and walking improvements for north-south journeys from King's Park to Boscombe and Southbourne Overcliff, via Pokesdown, Fisherman's Walk and Woodland Walk	Boscombe, Southbourne Grove	n/a	£9,500,000
26	LCWIP S33	Wessex Way to Boscombe Beach via Cleveland Road	Cycling and walking improvements along north-south route through Springbourne and Boscombe.	Springbourne (Holdenhurst Road)	St. Clement's Road and Holdenhurst Road	£2,800,000
26	LCWIP S34	Wessex Way to Boscombe Beach via Palmerston Road	Cycling and walking improvements along north-south route through Springbourne and Boscombe town centre	Boscombe and Springbourne (Holdenhurst Road)	St. Clement's Road and Holdenhurst Road	£6,300,000
25.5	LCWIP S8 & S5	Poole Park to Bournemouth	Sections of strategic cycle route to connect Bournemouth and Poole town centres via a number of local centres and two rail stations. Includes segregated cycle tracks and upgrades to several major junctions. Likely to be divided into a number of smaller packages for delivery.	Ashley Cross, Bournemouth Town Centre, Westbourne	Commercial Road	£13,800,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
25.5	LCWIP S62	Poole Town Centre North	Cycling and walking upgrades to provide safe and direct connections between Poole General Hospital, the Dolphin Centre, Poole Rail Station, Poole Park and Wimborne Road. Connects with Schedule reference TCF C5 and TCF S5	Poole Town Centre	Wimborne Road, George Roundabout, Kingland Road, High Street North	£5,200,000
25.5	LCWIP S27	Branksome to Canford Heath	Cycling and walking improvements along east-west corridor through Poole. Connects to Schedule reference TCF S5.	n/a	n/a	£5,600,000
25.5	LCWIP S54	River Way to Fairmile Road	Cycling and walking improvements through Jumpers Common. Connects with Schedule reference TCF C1.	n/a	Arcadia Road, Endfield Road, Canberra Road, Elm Avenue	£1,200,000

Note: The Delivery Plan is indicative and subject to change.

Table 8.8 - Indicative LCWIP Delivery Plan Schedule – Medium-Longer Term (7-10 years) schemes

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
25	LCWIP S24	Lansdowne to Talbot Campus Sustainable Travel Route Phase 2: B3064 Lansdowne Road between Cemetery Junction and Lansdowne Roundabout	Completion of new segregated cycle route between the two main University campuses and linking to Bournemouth Railway Station and Travel Interchange. Includes major junction improvements at Cemetery Junction. Connects to Schedule reference TCF Corridor C1	Bournemouth Town Centre	Lansdowne Road, Coach House Place, Station Forecourt	£8,100,000
25	LCWIP S14	Upton to Dorset Way	Cycling and walking improvements along east-west corridor in Poole, serving journeys to Nuffield Industrial Estate and Upton Country Park.	n/a	n/a	£13,300,000
24.5	LCWIP S31	Westbourne to Branksome Chine	Cycling and walking improvements along north-south corridor connecting communities to the beach and Westbourne district centre.	Westbourne	n/a	£2,900,000
24	LCWIP S40	Canford Heath (Adastral Road)	Cycling and walking improvements through Canford Heath from Canford Heath Road to Dorset Way	Adastral Square	Adastral Road	£2,300,000
24	LCWIP S35	Burton to Christchurch	Cycling and walking improvements connecting village of Burton to Christchurch via Christchurch Bypass.	Christchurch Town Centre	Christchurch Bypass, Stony Lane	£4,700,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
23.5	LCWIP S11	Kinson to Wallisdown	Cycling and walking improvements linking Kinson and Wallisdown areas. Connects to Schedule reference TCF S6	Kinson and Wallisdown	n/a	£7,000,000
22.5	LCWIP S38	Bournemouth Town Centre to Cemetery Junction	Cycling and walking improvements on north-south corridor, providing access to and from the town centre	Bournemouth Town Centre	Richmond Hill and Wimborne Road	£7,900,000
22.5	LCWIP S15	Yarrow Road	Cycling and walking improvements to provide safe access to and through the Tower Park area	n/a	n/a	£2,200,000
22	LCWIP S58	Castleman Trailway (Broadstone to Oakley)	Cycling and walking improvements to existing traffic-free route	Broadstone	n/a	£4,900,000
22	LCWIP S64	Parkstone to Sandbanks	Cycling and walking improvements along B3369 Sandbanks Road and Shore Road to connect Poole to Sandbanks Beaches	n/a	Sandbanks Road and Turks Lane	£4,600,000
21.5	LCWIP S28	Branksome to Ringwood Road	Cycling and walking improvements through Upper Parkstone. Connects to Schedule reference TCF S5.	Ashley Road	n/a	£6,900,000
21.5	LCWIP S68	Christchurch to Mudeford	Cycling and walking improvements to connect communities to the facilities in Christchurch and the beach at Mudeford	Christchurch Town Centre	High Street, Castle Street, Bridge Street, Path across Two Riversmeet Park and Stanpit Recreation Ground, Stanpit, Mudeford and Mudeford Quay	£4,400,000
21	LCWIP S52	Bournemouth Town Centre to Boscombe Chine	Cycling and walking improvements on east-west corridor, following the East Overcliff Drive for part of route	Bournemouth Town Centre	Westover Road, Bath Road, Russell Cotes Road, East Overcliff Drive	£3,600,000
21	LCWIP S39	Branksome to Branksome Chine	Cycling and walking improvements on north-south corridor connecting communities to the beach and facilities in Branksome	n/a	Tower Road West and Western Road	£4,000,000
21	LCWIP S10	Branksome to Wallisdown	Cycling and walking improvements linking Branksome to Wallisdown through Upper Parkstone.	Wallisdown	n/a	£3,500,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
20.5	LCWIP S61	Poole Old Town and Baiter	Cycling and walking improvements mainly on east-west routes to provide access to town centre destinations	Poole Town Centre	The Quay, Old Orchard, Lagland Road, Newfoundland Drive, Kingland Road, Park Lake Road and Harbourside Walk across Baiter	£6,500,000
20.5	LCWIP S29	Wimborne Road (Winton & Moordown)	Cycling and walking improvements along north-south corridor through Winton and Moordown, serving a range of destinations and facilities. Connects to Schedule reference S6.	Winton, Moordown	Wimborne Road	£4,200,000

Note: The Delivery Plan is indicative and subject to change.

Table 8.9 - Indicative LCWIP Delivery Plan Schedule – Longer Term (10+ years) schemes

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
19.5	LCWIP S30	Charminster Road and East Way	Cycling and walking improvements along north-south corridor through Charminster, enabling safer access to several schools, including those on East Way	Charminster	Charminster Road	£7,500,000
19.5	LCWIP S36	Talbot Woods to Cooper Dean Roundabout	Cycling and walking improvements on east-west corridor connecting communities to the Talbot Campus, facilities in Winton and Royal Bournemouth Hospital / Wessex Fields area	Winton	n/a	£6,700,000
19.5	LCWIP S53	Boscombe Pier to Southbourne (Overcliff Route)	Cycling and walking improvements parallel to the coast to complement the seafront route.	n/a	n/a	£6,400,000
19.5	LCWIP S65	Tuckton and Southbourne to Hengistbury Head	Cycling and walking improvements to enhance connections to beaches, open space and local facilities	n/a	Broadway and Hengistbury Head access	£4,200,000
19	LCWIP S48	Corfe Hills to Darby's Corner	Cycling and walking improvements along Upper and Lower Blandford Road serving journeys to Corfe Hills School and Broadstone District Centre.	Broadstone	n/a	£7,000,000
19	LCWIP S63	Sandbanks Peninsula	Cycling and walking improvements along B3369 Banks Road and Panorama Road enabling access to the beaches and ferry	n/a	n/a	£4,400,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
18.5	LCWIP S55	Castle Lane East to Tuckton	Cycling and walking improvements between Castle Lane East and Tuckton through Iford and Southbourne	Boscombe East	Cranleigh Road	£4,200,000
18.5	LCWIP S46	Mudeford to Somerford	Cycling and walking improvements on north-south corridor serving range of local destinations including access to employment, retail areas and the seafront	n/a	n/a	£3,500,000
18.5	LCWIP S67	Seafront Promenade (Sandbanks to Bournemouth)	Cycling and walking improvements along seafront between Shore Road Beach and Bournemouth Pier. Likely to be delivered in phases.	Bournemouth Town Centre	West Undercliff Promenade	£6,900,000
18	LCWIP S13	Fleet's Corner to Civic Centre	Cycling and walking improvements along Wimborne and Fernside Roads. Connects to Schedule references C5 and S5.	n/a	Wimborne Road and Fernside Road	£12,700,000
18	LCWIP S41	Christchurch Town Centre to Somerford Roundabout via Christchurch Bypass	Cycling and walking improvements on east-west corridor, including connections to and from Christchurch Urban Extension north of Lyndhurst Road	Christchurch Town Centre	Christchurch Bypass	£8,300,000
17.5	LCWIP S60	Castleman Trailway (Broadstone to Beechbank Avenue) and Broadstone Way	Cycling and walking improvements to existing traffic-free and segregated route	Broadstone	Broadstone Way	£12,200,000
17.5	LCWIP S56	Northbourne to West Parley (BCP Section)	Cycling and walking improvements on north-south corridor to connect West Parley and Ferndown to North Bournemouth. Connects with Schedule reference TCF S6.	n/a	n/a	£1,100,000
17	LCWIP S66	Seafront Promenade (Bournemouth to Southbourne)	Cycling and walking improvements along seafront between Bournemouth Pier and Hengistbury Head. Likely to be delivered in phases.	Bournemouth Town Centre	Undercliff Drive and Southbourne Promenade	£9,800,000
17	LCWIP S49	Sterte to Whitecliff via Longfleet	Cycling and walking improvements on north-south corridor to improve access to Poole Park, Poole General Hospital and employment and retail areas by Holes Bay Road	Poole Town Centre	n/a	£3,300,000

Combined Prioritisation Score	Section Reference	Location	Scheme Description	Includes Core Walking Zone	Includes Key Walking Route	Approximate Costs
16.5	LCWIP S45	Branksome to Sandbanks	Cycling and walking improvements on north-south corridor, mostly along Canford Cliffs Road, to connect communities to local facilities and beaches	n/a	n/a	£5,100,000
16.5	LCWIP S59	Castleman Trailway (Upton Country Park to Beechbank Avenue)	Cycling and walking improvements to existing traffic-free route, including safer connections across A35 slip roads	n/a	n/a	£2,400,000
16	LCWIP S57	Merley to Canford Bridge	Cycling and walking improvements on north-south corridor to connect Wimborne to Merley	n/a	n/a	£2,700,000
16	LCWIP S47	Poole Town Centre to Darby's Corner	Cycling and walking improvements on north-south corridor via Fleets Corner	Poole Town Centre	Sterte Road, Stanley Green Road, Fleets Lane and Waterloo Road	£11,800,000
15.5	LCWIP S50	Canford Cliffs to Branksome Chine	Cycling and walking improvements on east-west alignment, forming complementary parallel route to the seafront.	n/a	n/a	£1,700,000
15.5	LCWIP S51	Westbourne to Bournemouth Town Centre	Cycling and walking improvements on east-west corridor connecting communities to town centre and local facilities. Provides complementary, alternative route to the seafront.	Bournemouth Town Centre	Western Road, Alum Chine Road, West Cliff Road, St. Michael's Road, West Cliff Promenade	£4,400,000
14.5	LCWIP S44	Upper Parkstone to Evening Hill	Cycling and walking improvements on north-south corridor to connect communities to local facilities and beaches	Ashley Road	n/a	£7,000,000
12.5	LCWIP S43	Christchurch Town Centre to Somerford Roundabout via Purewell	Cycling and walking improvements on east-west corridor through Christchurch, Purewell and Somerford, providing access to local facilities	Christchurch Town Centre	High Street, Castle Street, Bridge Street	£7,500,000
12.5	LCWIP S69	Somerford to Highcliffe and Chewton Bunny	Cycling and walking improvements on east-west corridor through Highcliffe to Hampshire border, serving range of local destinations	Highcliffe	n/a	£9,300,000
11.5	LCWIP S42	East Parley to Christchurch	Cycling and walking improvements on corridor connecting Bournemouth Airport, Hurn, Fairmile and Christchurch town centre	Christchurch Town Centre	Bargates and Fairmile Road	£18,200,000

Note: The Delivery Plan is indicative and subject to change.

8.4 Prioritising Localised Improvements

Introduction

8.4.1. As described in Chapters 4 and 6, the LCWIP identifies networks of primary and secondary cycle routes and Core Walking Zones and Key Walking Routes. Chapter 7.4 considers the order in which the primary cycle routes would be delivered. This section considers how to prioritise the delivery of more localised infrastructure, to help achieve the secondary cycling network and enhanced walking networks.

8.4.2. This chapter sets out the methodology used to identify these localised interventions to improve cycling and walking in the BCP area.

8.4.3. Two methods were used to identify potential new or improved crossings for cycling and walking journeys:

- Area Porosity Analysis: following guidance in LTN 1/20 and LCDS, analysis was undertaken to understand which neighbourhoods have no or limited safe crossings to access adjacent areas; and
- Public feedback: comments on suggested cycling and walking improvements made by members of the public were analysed to identify the most popular requests.

8.4.4. Further to the above, PCT data was analysed to identify the schools in the BCP area which are forecast to see the greatest reduction in school run car trips. These schools could be targeted for packages of cycling and walking infrastructure to support active travel by schoolchildren and parents.

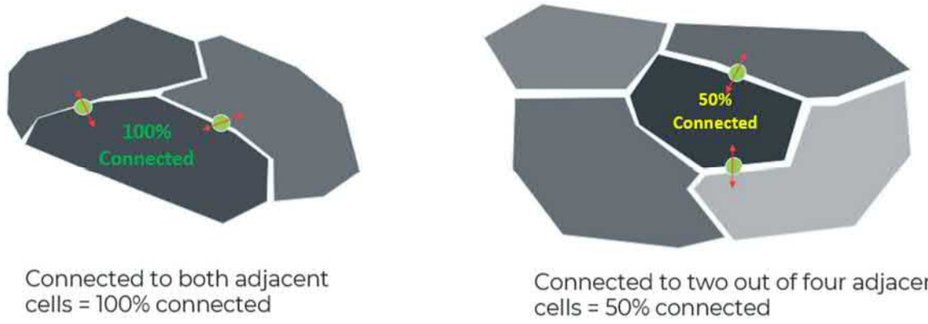
Area Porosity Analysis

Methodology Introduction

8.4.5. This workstream was based on guidance in LTN 1/20 and in the LCDS. LCDS defines area porosity as a measure of how many points there are for people cycling to “enter, pass through and leave an area comfortably”. Neighbourhoods with several safe crossings to connect to neighbouring areas are referred to as being ‘porous’.

8.4.6. The porosity analysis considered the number of suitable crossings suitable for cycling which enable connections to adjacent areas. The porosity score is the percentage of neighbouring cells which can be reached by safe crossings, as per the example in Figure 8.5.

Figure 8.5 - Example of porosity considering neighbouring cells



8.4.7. This scoring system ensures that cells with few adjacent neighbourhoods do not automatically get a lower porosity score (such as those on the edge of the conurbation or those located by the coast).

8.4.8. The analysis builds on the Liveable Neighbourhood assessment, which divided BCP into 150 areas bounded by high motor traffic roads or other linear physical barriers. The analysis is based on the assumption that, if measures were introduced which resulted in low motor traffic flows and low motor traffic speeds, roads within the Liveable Neighbourhood areas would be suitable for cycling.

Additional Refinements

8.4.9. For the purpose of the porosity analysis, the cells used for the Liveable Neighbourhood analyses were refined by:

- Splitting cells where other significant linear barriers to cycling or walking exist (i.e., railways); and
- Adjusting cell boundaries to include areas previously not included in the analysis (i.e., industrial areas).

8.4.10. The dataset of available crossings was updated to include recently completed infrastructure schemes that enable connections between neighbourhoods (e.g. Wallisdown Road West scheme).

Step 1 – Connections

8.4.11. All potential connections between cells were mapped as arrows. Arrows were included where:

- Connections were considered feasible – for example, if the boundary between cells is a railway with no crossing, with cul-de-sacs in both cells, creating a new crossing is considered to be beyond the scope of this piece of work; and
- Connections between cells would occur on the common boundary and would not require extensive additional infrastructure.

8.4.12. The mapping was a manual process done on a case-by-case basis and exceptions were made where appropriate. In the mapping software these crossings have a binary attribute (0= not suitable, 1= suitable) which was ultimately used to calculate the porosity score (percentage of neighbouring cells connected).

Step 2 – Baseline Porosity

8.4.13. Following the method described above, the baseline porosity for the BCP area was calculated. The result is shown in Figure 8.6. The analysis identified 72 cells (representing areas home to approximately 89,500 out of 395,300 BCP residents) that have no suitable connections to adjacent cells for people cycling. In contrast 41 cells (home to approximately 77,000 residents) have a porosity score of 50% or above (connections to at least half of the surrounding neighbourhoods).

Step 3 – Transforming Cities Fund Context

8.4.14. Committed current cycling and walking schemes which included cycle tracks and/or crossings were mapped. The area porosity was then recalculated based on the addition of these proposals. The resulting porosity can be seen in Appendix I.

8.4.15. The proposed cycle tracks and crossings will locally improve porosity and reduce the numbers of impermeable cells (with no safe crossings) from 72 to 57 (covering approximately 65,000 residents). The potential Liveable Neighbourhood areas which would see the greatest increase in porosity are Bearwood North and Branksome Woods North (from 0% to 100%) and Bearwood South (from 20% to 80%). The implementation of committed schemes would also see eight other cells increase porosity from 0% to 50% or above.

Step 4 – Scoring Potential Connections

8.4.16. The next step was to consider where new or improved crossings suitable for cycling might generate the greatest benefit. Two criteria were used to assess potential connections:

- Porosity: the sum of the porosity scores of the two cells which would be connected; and
- Population: the sum of the resident population in the two cells which would be connected (data for 2019 from Experian).

8.4.17. Using both criteria ensures that small, poorly connected cells do not get prioritised over cells that are much more populous but have a slightly higher existing porosity score.

8.4.18. A five-point scoring scale was used, where a score of 5 indicated interventions that might generate the greatest benefits (higher resident population and low porosity scores). Both criteria were given equal weighting.

Results

8.4.19. The results of the porosity analysis are shown in Table 8.10. The table gives the population of the connected cells rounded to the nearest hundred and with the existing porosity of the connected cells shown in brackets.

8.4.20. There are 10 potential connections which receive a maximum score of 10, and a further 19 potential connections with a score of 9. These high-scoring potential connections are shown on the plan in Figure 8.7.

8.4.21. Delivering the 10 top scoring connections would increase porosity (enhance safe cycling and walking access) for approximately 68,000 residents. Delivering the additional 19 connections (which scored 9) would improve cycling and walking access for an additional 67,000 residents.

Potential solutions

8.4.22. The cells considered in this analysis are those bounded by strategically important, high motor traffic flow roads. In most cases, one or two of the following are required to achieve improved connections and resulting cell porosity:

- New or improved crossings: to connect quiet side streets and/or traffic-free links to each other across high traffic roads; and
- Additional sections of cycle tracks to connect from quiet side streets or traffic-free links to new or improved crossings.

8.4.23. Further study will be required to identify the most appropriate solution in each case.

Figure 8.6 - Baseline Area Porosity

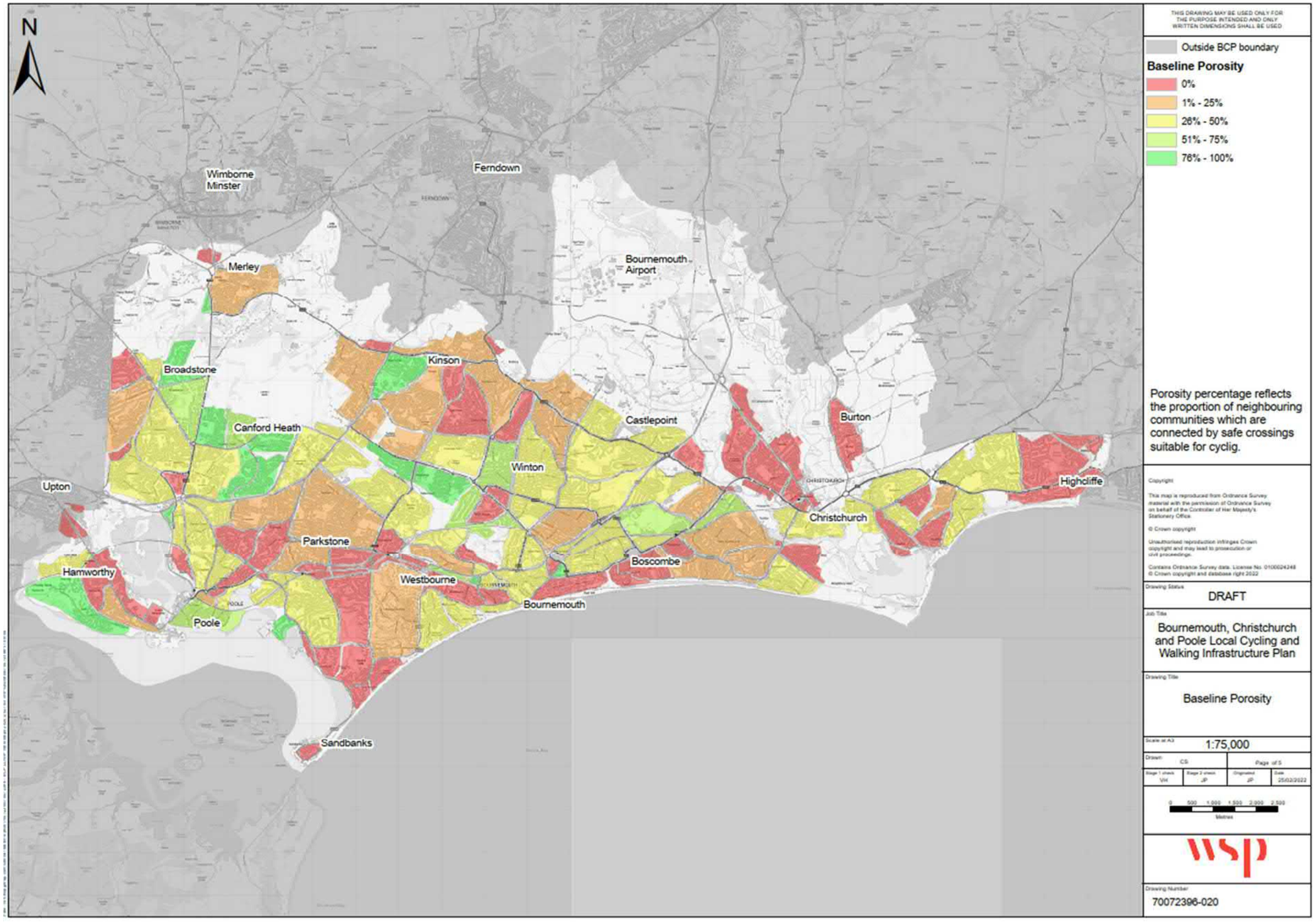


Figure 8.7 – Area porosity analysis: Top scoring potential connections from assessment and resulting porosity

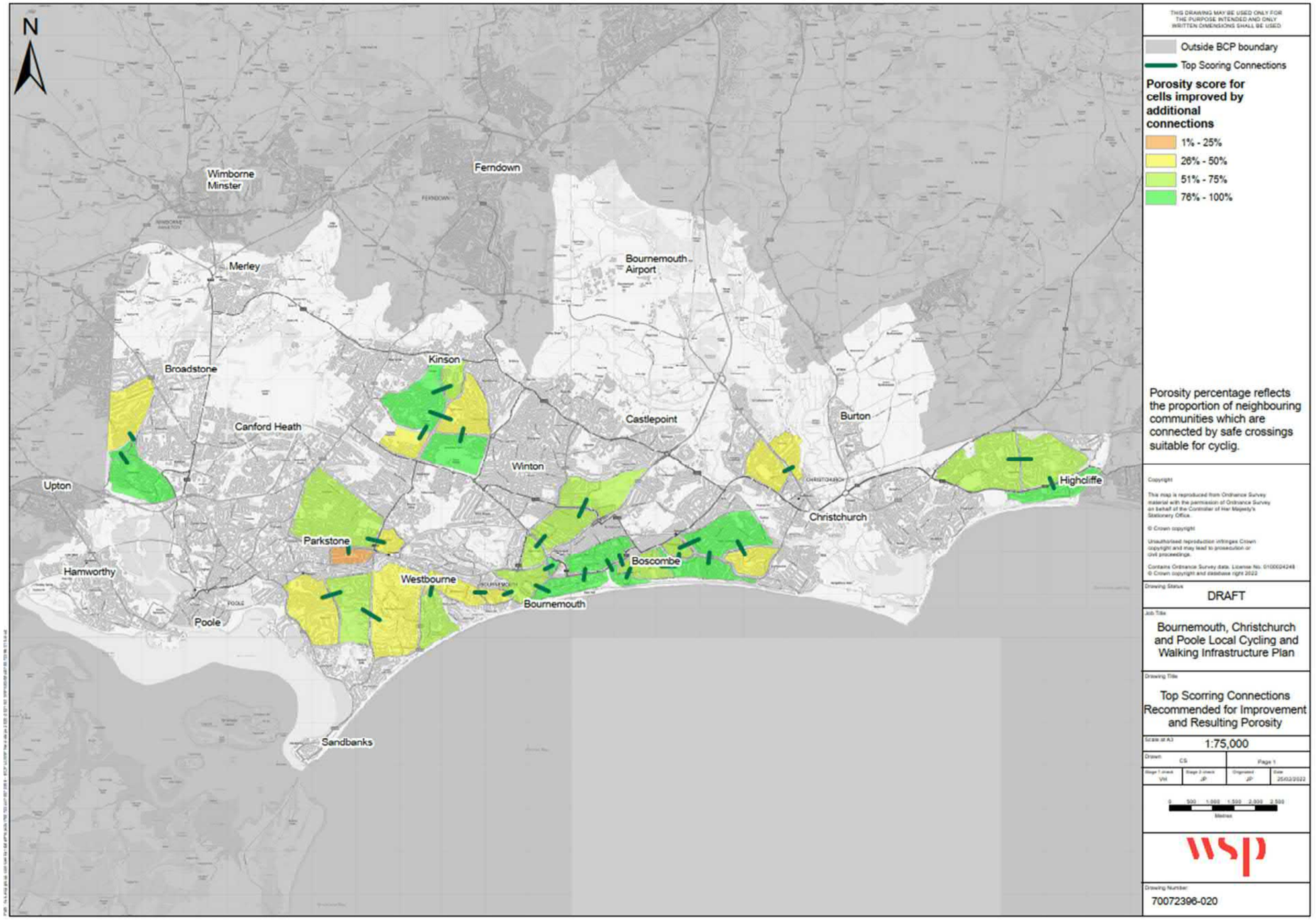


Table 8.10 - Top Scoring Connections sorted by score

Cell References	Potential Liveable Neighbourhood Areas Connected (Existing Porosity Score in brackets)	Combined Resident Population	Assessment Score	Boundary Road/s for Potential New or Improved Crossing/s
143 and 58	West Howe (20%) to East Howe and Ensbury Park (0%)	11,800	10	Kinson Road (between Columbia Road and East Howe Lane)
8 and 147	Alum Chine West (33.3%) to Westbourne South (0%)	7,600	10	Western Road/Alum Chine Road Roundabout
16 and 17	Bournemouth Central (28.6%) to Bournemouth East Cliff (0%)	8,500	10	Bath Road (between Pier Approach and Lansdowne Roundabout)
14A and 17	Boscombe North West (33.3%) to Bournemouth East Cliff (0%)	10,500	10	Christchurch Road (between St Swithun's Rd South and Knyveton Road)
82 and 16	Lansdowne North (0%) to Bournemouth Central (28.6%)	7,700	10	Madeira Roundabout (on Lansdowne Road)
14A and 12	Boscombe North West (33.3%) to Boscombe Central (0%)	11,800	10	Christchurch Road (between St John's Road and Salisbury Road)
14A and 15	Boscombe North West (33.3%) to Boscombe South West (0%)	9,400	10	Christchurch Road (between Knole Road and St John's Road)
120 and 12	Southbourne Coastal (20%) to Boscombe Central (0%)	8,900	10	Beechwood Avenue (over Woodland Walk)
107 and 73A	Pokesdown South (0%) to Iford & West Southbourne (25%)	11,300	10	Seabourne Road (between Christchurch Ave and Woodside Road)
68 and 69	Highcliffe North West (33.3%) to Highcliffe North, Chewton Common & Walkford West (0%)	8,300	10	Hinton Wood Avenue
75 and 61	Jumpers Common East (25%) to Fairmille (0%)	6,000	9	Fairmile Road between St Catherine's Hill Lane and Jumpers Road)
32 and 55	Broadstone West (25%) to Creekmoor (33.3%)	8,800	9	Beechbank Avenue
55 and 56	Creekmoor (33.3%) to Creekmoor North of Beechbank Avenue (0%)	5,700	9	Beechbank Avenue (between Longmeadow Lane and Pinesprings Road)
143 and 79	West Howe (20%) to Kinson South East (50%)	8,900	9	Kinson Road (between East Howe Lane and Wimborne Road)
58 and 51	East Howe & Ensbury Park (0%) to Columbia Farm & Talbot Village (66.6%)	8,500	9	Columbia Road (between Kindson Road and Ensbury Park Road)
143 and 141	West Howe (20%) to Wallisdown North West & Turbary Common (25%)	8,100	9	Turbary Park Avenue (around Daws Avenue)
135 and 6	Upper Parkstone & Rossmore South (37.5%) to Alexandra Park (0%)	16,900	9	Ashley Road (between Richmond Road and Alter Road)

Cell References	Potential Liveable Neighbourhood Areas Connected (Existing Porosity Score in brackets)	Combined Resident Population	Assessment Score	Boundary Road/s for Potential New or Improved Crossing/s
135 and 23	Upper Parkstone & Rossmore South (37.5%) to Branksome Bourne Valley (0%)	16,400	9	Alder Road (between Ashley Road and Yarmouth Road)
104A and 106	Parkstone South (28.6%) to Penn Hill South (0%)	7,400	9	Sandecotes Road or Compton Ave (between Kingsbridge Road and Lilliput Road)
106 and 25	Penn Hill South (0%) to Branksome Park (25%)	6,100	9	Canford Cliffs Road (between Lilliput Road and Penn Hill Avenue)
147 and 22	Westbourne South (0%) to Bournemouth West Hill (0%)	5,700	9	Durley Chine Road and Durley Road South
57 and 87	Dean Park (33.3%) to Malmesbury Park (25%)	8,700	9	Lansdowne Road (between Charminster Road and Wessex Way)
22 and 16	Bournemouth West Hill (0%) to Bournemouth Central (28.6%)	6,800	9	Terrace Road and Exeter Road (between Commercial Road and Priory Road)
87 and 111	Malmesbury Park (25%) to Queens Park (40%)	10,600	9	Richmond Park Road
120 and 107	Southbourne Coastal (20%) to Pokesdown South (0%)	6,300	9	Parkwood Road and Woodside Road
120 and 73A	Southbourne Coastal (20%) to Iford & West Southbourne (25%)	13,800	9	Southbourne Grove (between Woodside Road and Carbery Avenue)
73A and 144	Iford & West Southbourne (25%) to West Southbourne (25%)	12,000	9	Carbery Avenue
70 and 69	Highcliffe South (0%) to Highcliffe North, Chewton Common & Walkford West (0%)	5,600	9	Lymington Road (between Castle Avenue and Milestone Roundabout)
15 and 12	Boscombe South West (0%) to Boscombe Central (0%)	6,600	9	St John's Road, Owls Road and Percy Road

Public feedback

8.4.24. WidenMyPath is a not-for-profit project enabling members of the public across the UK to identify where cycling improvements are most required. The website invites people to drop pins on an interactive map and make comments or to support a comment already made by another user. For the LCWIP, data on the pins and comments made before 31 January 2022 within the BCP Council area was downloaded and analysed. The focus was to use the public feedback to identify requests for safe crossings.

8.4.25. The following tasks were undertaken:

- Data was filtered for any comments containing the word “cross”; and
- Comments containing the above keyword and with support from 10 or more people were taken forward for individual analysis.

8.4.26. This identified 44 comments, with 942 likes in total. These comments were analysed individually and cross-checked against recently completed or committed schemes (such as those funded by Transforming Cities Fund).

8.4.27. Table 8.11 and Table 8.12 sets out crossing locations supported by 20 or more people and 10 or more people respectively.

Table 8.11 - Public feedback - Crossing requests with 20 or more ‘likes’

Location and Crossing Commentary	Comment ID	Number of Likes
A35 Christchurch Bypass at Stony Lane Roundabout	137265; 138402; 136548	56
Banks Road, south of Panorama Road junction, to enable crossing from one cycle lane to another	124005; 124256	52
Bournemouth Square, to connect to wider cycle path network along the Gardens	125079	49
Branksome Wood Road, south of roundabout with Coy Pond Road	123758; 125076	42
Banks Road and Panorama Road junction, by Haven Hotel, crossing for pedestrians and cyclists	124092	37
Banks Road, crossing North of junction with Shore Road	124008	34
Pottery Junction, crossings East of Alder Road	124002	33
Branksome Wood Road, at Leven Avenue / Queens Road junction, to provide access to and from Upper Gardens	124938	32
Seldown Bridge, south of Kingland Road Roundabout	124030; 124031	29
Fernside Road, between Civic Centre and Shah of Persia to enable safe access into Churchfield Road	124059	29
Mount Pleasant Roundabout - crossings for people cycling and walking	124057	21
Labrador Road, junction with Furnell Road – crossings for people walking	123984	20

Table 8.12 - Public feedback - Crossing requests in BCP Council area with 10 to 20 'likes'

Location	Comment ID	Number of Likes
Parkstone Road by Bird's Hill Road / Poole Park entrance	132735	19
The Triangle west of bus station – improve pedestrian crossing	143687	19
Parkstone Road, opposite Seldown Road	124035	16
Upton Road / Longmeadow Lane Roundabout	129519	16
Leicester Road / Western Road junction	120269	15
Parkstone Road, junction with Elizabeth Road	124040	15
Ringwood Road between Bear Cross Roundabout and Longham Bridge	128741	15
The Quay / Old Orchard Roundabout, Poole Old Town	124072	12
Pinecliff Road at Branksome Chine	125214	12
Sandbanks Road, across from Evening Hill, enabling crossing to and from the viewpoint	143338	12
Yarmouth Road, zebra crossing South of Wroxham Road	152555	12
Longfleet Road junction with Elizabeth Road	124041	11
Somerford Road, East of Purewell Cross Road	149354	11
Tower Road West, connecting Branksome Chine Paths	125216	10

8.4.28. The interventions identified by the two strands of analysis above, as well as other public engagement comments, were reviewed by BCP officers and informed a delivery plan for local interventions. Their assessment also took account of local knowledge and inputs from the BCP Road Safety Team.

Travel to School Data

8.4.29. As discussed in sections 3.2 and 3.5, the PCT provides forecasts for the potential growth in active travel to school under different scenarios. The data for the Go Dutch scenario was analysed, focusing on the potential resultant decrease in car trips to school. The largest forecast decrease in car trips to school is largely associated with schools with the greatest number of pupils, which tend to be secondary schools.

8.4.30. The results of the analysis are presented separately for secondary schools and for all other schools. Table 8.13 presents the 10 secondary schools with the highest forecast decrease in car trips, and Table 8.14 presents the 10 non-secondary schools with the highest forecast decrease in car trips.

Table 8.13 – PCT Analysis Go Dutch scenario – Secondary Schools with Largest Forecast Reduction in Children Driven to School

School	Forecast decrease in Children Driven to School (vs School Census 2011)
Highcliffe School	356
Twynham School	348
Poole High School	249
Oakmead College of Technology	230
Bournemouth School	229
St Edward's High School	213
Bournemouth School for Girls	213
Glenmoor School	195
Winton Arts and Media College	165
The Bishop of Winchester Academy	153

Table 8.14 – PCT Analysis Go Dutch scenario – Non-Secondary Schools with Largest Forecast Reduction in Children Driven to School

School	Forecast decrease in children driven to school (vs School Census 2011)
Broadstone Middle School	178
Christchurch Junior School	106
St. Walburga's Catholic Primary School	91
Winton Primary School	88
St. Mark's C of E Aided Primary School	84
Muscliff Primary School	82
Highcliffe St. Mark Primary	76
Malmesbury Park Primary School	76
St Katharine's Church of England Primary	75
Hillview Primary School	75

8.5 Appraisal

8.5.1. Funding for local transport improvements, including cycling and walking schemes, comes from a variety of sources, including – but not limited to - government departments and Local Enterprise Partnerships. In many cases funding is awarded following a competition to which BCP Council can submit bids. The aims and objectives of each fund will vary and so some local transport improvements will be better suited to some funds rather than others.

8.5.2. In many cases BCP Council must prepare a business case and submit it to the funding body. The business case sets out how well the scheme will meet the objectives and appraises its likely value for money (benefits versus costs). Some of the LCWIP identified improvements are coming forward as part of BCP Council's successful funding bids to central government (Transforming Cities Fund) and to Dorset LEP.

8.5.3. As it is not yet certain what funds will be targeted to deliver other elements of the LCWIP, no additional appraisal has been undertaken at this stage.

9 Stage 6: Integration and Application

9.1 Integrating the LCWIP within local policies and plans

9.1.1. The LCWIP will make the case for, and help secure, future funding for cycling and walking infrastructure. The LCWIP will be incorporated and/or referenced in other council polices, strategies and plans, including in the following ways:

- The new Local Transport Plan will set out the policy basis which supports the LCWIP;
- The LCWIP Delivery Plan will contribute to the Local Transport Plan Implementation Plans; and
- The LCWIP will form evidence to develop the new BCP Local Plan.

9.2 Using the LCWIP to secure funding

9.2.1. Technical work on the LCWIP prioritisation was used as supporting evidence in the Council's submission to the DfT's Active Travel Fund in summer 2021.

9.2.2. The LCWIP will be used to support and inform other bids, strategies and delivery plans as they arise.

9.3 Tools and Guidance

9.3.1. A substantial range of tools and guidance is available to guide the cycling and walking improvements outlined in the LCWIP. This includes:

- LTN 1/20 provides comprehensive guidance on standards to apply to cycle infrastructure designs, along with design principles and processes to follow. It recommends using the Cycling Level of Service (CLoS) and the Junction Assessment tools (JAT) to identify whether proposed schemes meet minimum quality criteria;
- The Healthy Streets approach, which focuses on creating streets that are pleasant, safe and attractive, where noise, air pollution, accessibility and lack of seating and shelter are not barriers that prevent people - particularly the most vulnerable people - from getting out and about. It is based on ten indicators and includes a checklist for designers;
- The Manual for Streets (2007), setting out design guidance for new residential streets, and Manual for Streets 2 (2010), setting out design guidance for all urban and rural streets and roads. A new Manual for Streets is currently being drafted to replace the two existing documents and is expected to be published in 2022.
- The Planning for Walking Toolkit (2020) published by Transport for London, is a handbook providing advice of planners and designers involved in the redesign of creation of public spaces, including streets and footpaths.

9.4 Reviewing and Updating the LCWIP

9.4.1. The LCWIP will be periodically reviewed and updated to reflect any relevant local changes (such as new polices, funding and developments). It will take account of progress in delivering proposals identified in the LCWIP Delivery Plan.

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