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1 Introduction

This appendix summarises the process of identification of the cycle network and Core Walking Zones (CWZs) for Bridgnorth, including setting out in detail the network planning and prioritisation stages of the Shropshire LCWIP as relevant to Bridgnorth.

1.1 Bridgnorth Context & Study Area

Bridgnorth is an old town dating back to the 13th century. It's located around the River Severn and is named after the bridge that crosses it. It is visited by thousands every year, attracted by the River Severn and its associated walks as well as the Severn Valley Railway which terminates in the town.

1.1.1 Population

The population of Bridgnorth is 12,657 (ONS, 2015). The population is 49.1% male and 50.9% female. There is a similar age profile in Bridgnorth compared to the wider county, with 22% of people aged over 65 compared to 21% of people in Shropshire as a whole. Accordingly, Bridgnorth has a similar proportion of residents of traditional working age (16-64) at 63% of the population compared to 62% of residents in the whole of Shropshire, 64% in the West Midlands and 65% in England (Figure 1-1).

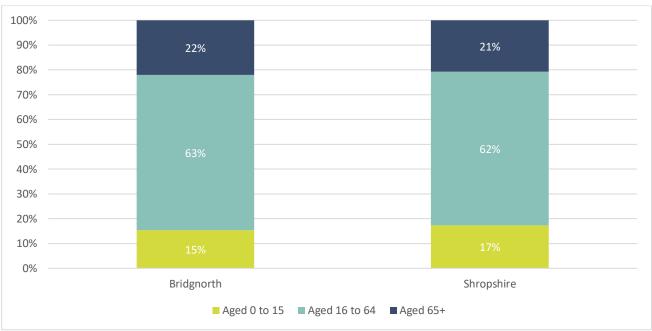


Figure 1-1: Demographic Profile of Bridgnorth Compared to Shropshire

1.1.2 Population Density

The majority of the town and surrounding area has relatively low population density compared to the rest of the county, however the north west corner around Victoria Road has a higher density of 5,000 people per km² (see Figure 1-2).



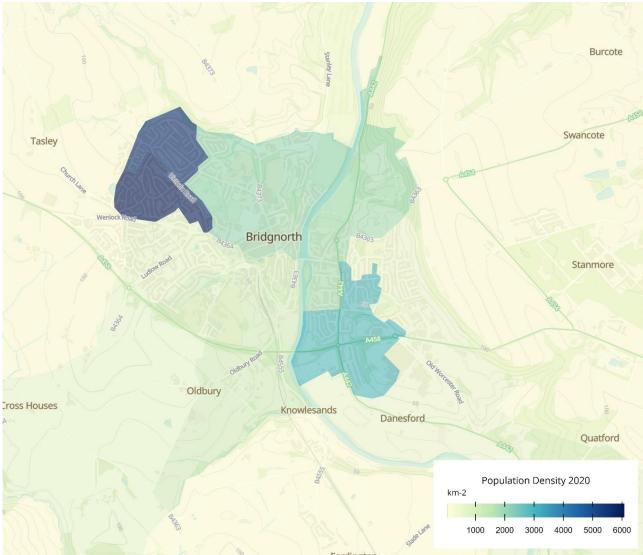


Figure 1-2: Population Density around Bridgnorth

1.1.3 Deprivation

Bridgnorth has mostly low levels of deprivation with the most deprived areas being a small area to the west of the town and the larger area to the east (see Figure 1-3).



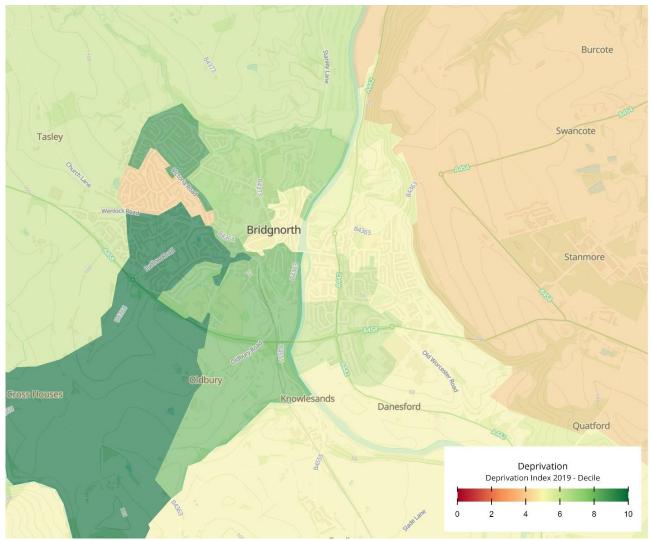


Figure 1-3: Deprivation Indices around Bridgnorth

1.1.4 Mode Share – Travel to Work

The mode share for commuting (Nomis, 2011) shows that there is a slightly lower mode share for travel to work by bicycle (2%) compared to Shropshire as a whole (3%) but a higher mode share for walking to work (17%) compared to Shropshire as a whole (13%) (Figure 1-4). This may reflect the compact, walkable nature of Bridgnorth.



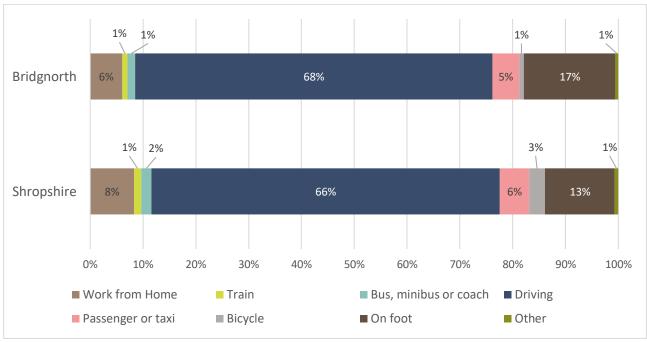


Figure 1-4: Commuting Mode Share in Bridgnorth Compared to Shropshire

Over a quarter (27%) of Bridgnorth residents' commutes are under 2km, 7% are between 2km and 5km and 4% are between 5-10km (Figure 1-5). This indicates that there is potential for nearly half of commuting journeys to be made by active modes.

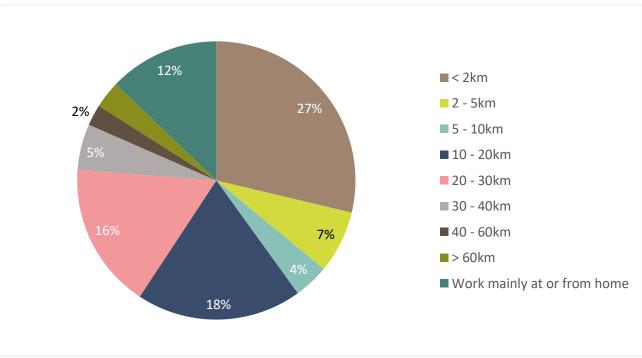


Figure 1-5: Commuting Distances in Bridgnorth

1.1.5 Topography

Bridgnorth is divided into the Low Town and the High Town. High Town is perched on the cliffs 100ft above the Low Town. There is a funicular railway joining the two, however the topography presents a significant barrier for the use of active travel to get between the two parts of the town. The increasing popularity of electric bikes may have the potential to reduce the effects of this barrier, but the majority of walking, wheeling and cycling journeys are likely to be made within the two separate parts of the town independently.



1.2 Geographical Scope

As per the Department for Transport's (DfT) LCWIP Guidance (DfT, 2017), the network planning for Bridgnorth has been carried out within 10km from the town centre for cycling and 2km for walking which encapsulates the whole of the town and surrounding settlements. The area this covers is shown in Figure 1-6.

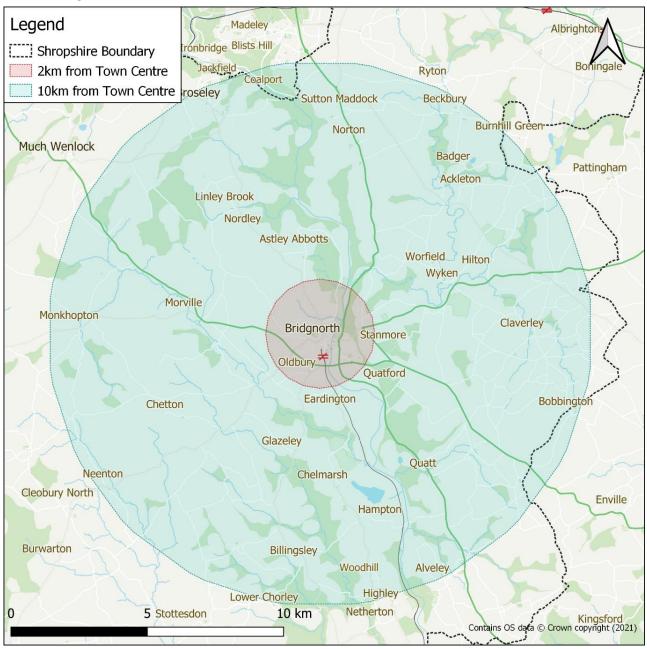


Figure 1-6: Study area for Bridgnorth

1.3 Report Structure

Following this chapter, this report has been structured in the following way:

- Chapter 2: Stakeholder Engagement
- Chapter 3: Network Planning for Cycling
- Chapter 4: Network Planning for Walking
- Chapter 5: Prioritisation Results



2 Stakeholder Engagement

As discussed in the main LCWIP report, stakeholder engagement was fundamental to the development of the LCWIP. As such, engagement was carried out at multiple points throughout its development (See Section 4 of the main Shropshire LCWIP report for more detail).

As part of the Evidence Gathering stage (Stage 2), a survey was circulated to key stakeholder groups in Bridgnorth (see Table 2-1 Table 2-1: Stakeholder groups contacted through Bridgnorth Stakeholder Engagement activities for the full list of stakeholder groups contacted) to capture their views on network-wide opportunities and constraints for active travel.

Stakeholder Groups Contacted During Stakeholder Engagement				
Astley Abbots Parish Council				
Bridgnorth East & Astely Abbotts Councillor				
Bridgnorth Town Council				
British Horse Society				
Ditton Priors Parish Council				
Living Streets				
National Trust				
Quatt Malvern Parish Council				
Shropshire Council Officer				
Sustainable Transport Shropshire				
Sustrans				
Tasley Parish Council				

Table 2-1: Stakeholder groups contacted through Bridgnorth Stakeholder Engagement activities

Table 2-2 shows some of the feedback that was collected on the current walking and cycling provision in and around Bridgnorth. Using this survey, individual concerns were aggregated to prioritise areas of interest as well as recommendations.

Question: How would you rate the current walking & cycling networks on the following criteria?	Score (5 = Excellent, 1 = Very Poor)
Coherence (how easy it to use and navigate to access key day-to-day destinations)	2.3
Directness (how direct are routes compared to routes for vehicles)	2.3
Safety (how safe do the routes feel to use)	1.9
Comfort (to what extent are routes good quality, well-maintained, of a suitable width and avoid steep gradients)	1.7
Attractive (to what extent are routes enjoyable to use and spend time in e.g. adjacent to nature)	2.6

Table 2-2: Survey results on the current state of the walking and cycling networks in and around Bridgnorth

Once key data and feedback had been processed from Stage 2, a desktop audit of the area, a local workshop and a site visit were undertaken in Bridgnorth to gain a better understanding of the area and to identify key barriers to walking and cycling. The local workshop (which was held on 18th January 2022) provided stakeholders with context of the LCWIP development process and helped confirm, as well as added to, the findings of the desktop audit. The objectives of the workshop were to:



- Present and gather feedback on the evidence base for Bridgnorth
- Seek feedback on the identification of the Core Walking Zone (CWZ) and Key Walking Routes both to and within the CWZ (see Chapter 4)
- Identify key opportunities for walking improvements and cycling schemes (see Chapters 3 & 4)
- Seek feedback on cycle desire lines (see Chapter 3)

A site visit, attended by some workshop participants, was held on the 17th February 2022. The stakeholder input helped to provide detailed insights into the biggest problems residents face when walking, cycling and using other active modes to travel around Bridgnorth.

After the workshop and site visit, a further survey was sent out to those stakeholders that attended the workshop to capture their feedback on the emerging proposals for the draft cycling network and CWZ. The feedback received helped further refine the route proposals prior to undertaking the prioritisation process (see Chapter 5).



3 Network Planning for Cycling

3.1 Existing Cycling Network

Bridgnorth has no existing cycle infrastructure. National Cycle Route 45 ends in Upper Forge to the south, and resumes north of the Bridgnorth Golf Course (see Figure 3-1). This shows the importance of delivering high quality walking and cycling infrastructure across the town to provide both local and long-distance connectivity.

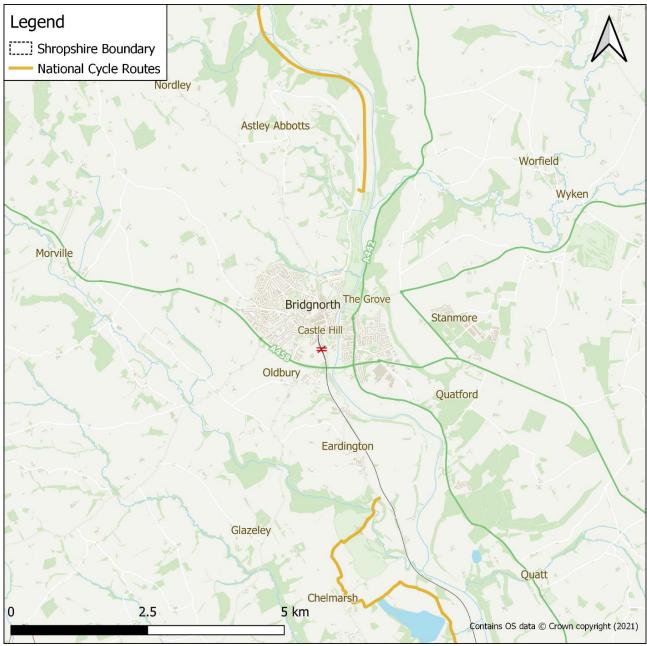


Figure 3-1: National Cycle Route around Bridgnorth

In order to identify routes and close the existing gaps, a network of preferred routes has been defined for Bridgnorth drawing on an analysis of the following data:

- Trip Origins Points (see Section 3.1.1)
- Trip Destination Points (see Section 3.1.2)
- Accessibility Catchment Analysis (see Section 3.1.3)
- Desire lines for cycle movement (see Section 3.1.4)



- Stakeholder Engagement (see Section 3.2)
- Cycle Route Selection: Route alignment of cycle routes (see Section 3.3)

3.1.1 Trip Origin Points

Trip origin points generally consist of residential areas which generate the most travel demand and therefore present the greatest potential to achieve a shift to active modes (DfT, 2017). As indicated in Figure 3-2, 12 key origin areas have been identified in Bridgnorth, which reflect both the existing resident population density as well as future population density through delivery of allocated residential developments identified in the emerging Shropshire Local Plan (2016 – 2038).

3.1.2 Trip Destination Points

Trip destination points constitute common trip generating land uses such as town centres, key employment areas and other amenities such as schools, community and healthcare facilities (DfT, 2017). As indicated in Figure 3-2, five key trip destination areas have been identified within Bridgnorth through consolidation of a variety of data sources including land use, commuting trip origin-destination pairs from the 2011 Census, and local knowledge gained through stakeholder engagement and an on-site audit.

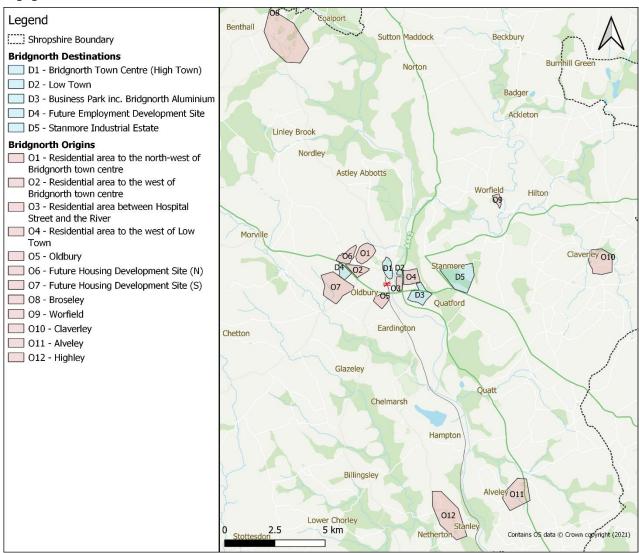


Figure 3-2: Trip Origins and Destinations around Bridgnorth



3.1.3 Accessibility Catchment Analysis

An analysis of the time taken to cycle to key origin points and key destination points from the town centre was undertaken. This analysis, alongside other evidence (see the LCWIP Main Report, Section 5.1.2) helped inform the identification of desire lines (see Section 3.1.4). A maximum cycle journey time of 30-minutes was applied (this is the time it takes the average person to cycle 10km). The accessibility analysis revealed:

- All of Bridgnorth's residential areas are within a 10-minute cycle of the town centre
- Tasley and Eardington are within a 15-minute cycle of the town centre
- Accessibility is generally good in all directions from the town, however, there is a barrier to the south west which prevents access past the 20-minute mark altogether

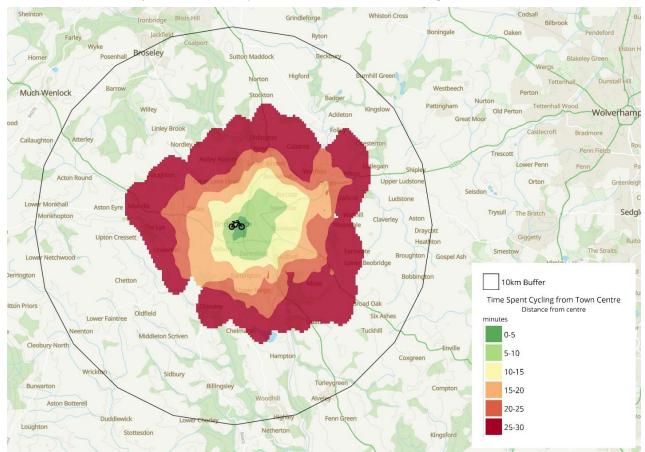


Figure 3-3: Cycling Catchment Map from Bridgnorth Town Centre

3.1.4 Desire Lines for Cycle Movement

Once the origin and destination areas were identified, desire lines, which are straight 'as the crow flies' lines, were drawn. These desire lines, informed by an evidence base (see the main LCWIP Report, Section 5.1.2), show existing and potential cycling demand between origins and destinations and are a core component of the cycle route identification process. The desire lines for Bridgnorth are shown in Figure 3-4.

These desire lines are 'straight lines' which means that they do not account for the presence of specific cycle routes (whether existing or proposed) at this stage. The purpose of the subsequent route selection process is to convert these desire lines into potential routes. Each desire line's relative importance was classified using the following criteria, taking into account both the existing numbers of cyclists and future projections of cyclists.



- **Primary Desire Line**: Potential for a high number of people (as a general rule greater than 250 people per day, but this is relative to the population of the area) to cycle typically linking large or high-density existing or planned residential areas with key destinations
- Secondary Desire Line: Potential for a moderate number of people (as a general rule between approximately 50 and 250 per day, but this is relative to the population of the area) cycling from existing or planned residential areas, typically connecting to destinations including education, hospitals and existing or planned employment sites
- Local Desire Line: Low number of people (as a general rule less than approximately 50 people per day but this is relative to the population of the area) cycling between local destinations and to access primary and secondary desire lines

Figure 3-4 indicates that there are several key desire lines in the study area:

- The Primary Desire Lines connect to the town centre and the large industrial estate to the east
- There are Secondary Desire Lines heading into the town from smaller residential areas
- There are Local Desire Lines connecting the town's residential areas to local services

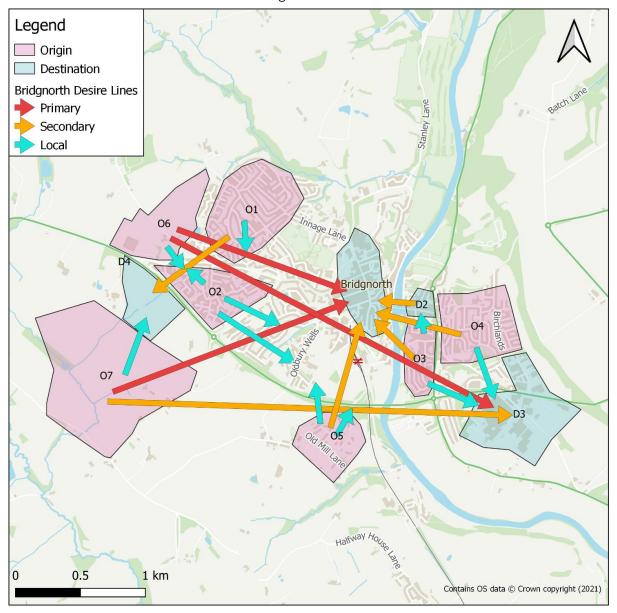


Figure 3-4: Cycle Desire Lines



3.2 Stakeholder Engagement

Alongside the desire line analysis, the route selection process has also been informed by suggestions from people who currently cycle in the study area to reflect the opportunities and current challenges of cycling around Bridgnorth. These suggestions were collected through a local workshop and a site visit (see Chapter 2). All suggestions were collated on a virtual platform called Miroboard, a snapshot of which is shown in Figure 3-5. Route suggestions by stakeholders were considered in the proposed network, those suggestions that were supported by other evidence were included in the final network.

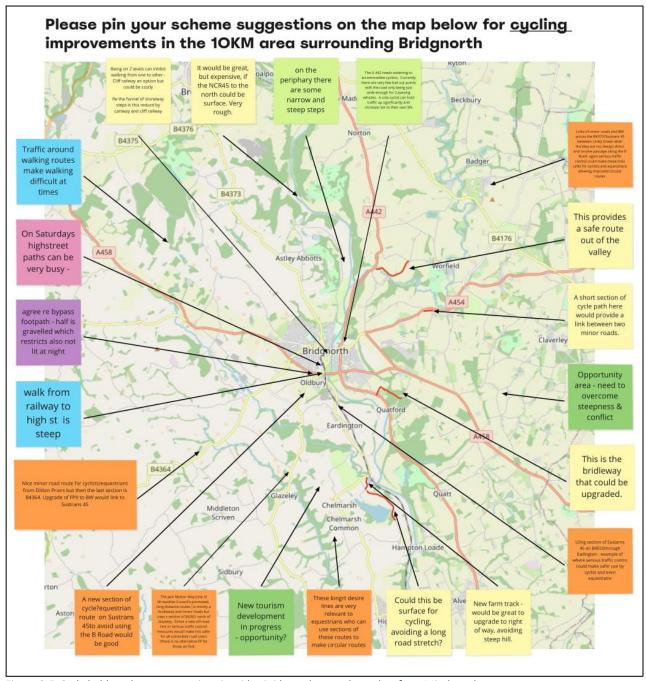


Figure 3-5: Stakeholder scheme suggestions in wider Bridgnorth, snapshot taken from Miroboard



3.3 Cycle Route Selection – Route Alignment of Cycle Routes

The straight desire lines were then converted into routes that aligned with street networks, using Google Maps and Open Street Maps and informed by current and potential future cycling demand. This included use of Strava Metro and Propensity to Cycle tool data as well as feedback from the stakeholder workshop and on-site observations of existing infrastructure and road layouts.

3.3.1 Design Principles

The selection of routes was further refined by applying the following LTN 1/20 Core Design Principles (DfT, 2020) which, as identified in the Main LCWIP Report, are essential requirements for Shropshire Council to meet in order to qualify for future active travel grant funding from Active Travel England.

Design Principle	Route Selection Process Compliance
Coherent	Routes have been selected that follow logical routes and are of a consistent nature, where possible and practical, which easily connect to key identified destinations.
Direct	Routes have been selected that provide the most direct connection, where practical, between key origins and destinations. This includes the identification of upgrades to current routes which do not currently satisfy the main desire lines.
Safe	The precise type of route provision is subject to further refinement through the concept and detailed design stages of the process. A key focus through the process in this LCWIP has been to establish the need to upgrade routes that currently constitute an advisory cycle lane next to a general traffic lane as well as delivering new routes that are segregated from general traffic, where achievable in available carriageway space.
Comfortable	The precise type of route surfacing is subject to further refinement through the concept and detailed design stages of the process. Focus through this LCWIP process has been to propose improvements where surface quality has been identified as a problem and to upgrade current sections of the network which involve frequent transitions between on and off carriageway facilities.
Attractive	The precise nature of route attractiveness is subject to further refinement through the concept and detailed design stages of the process. This LCWIP establishes the principle of routes which complement natural assets (e.g. the waterfront) alongside network wide improvements, such as wayfinding, that could make cycling a more enjoyable and hassle-free experience.

Table 3-1: Summary of Route Selection Process with LTN 1/20 Core Design Principles

3.3.2 Guiding Principles

To support the desired design principles, the cycling improvements proposed (see Section 3.4), will adhere to the general guiding principles contained in Appendix – Guiding Design Principles.

3.4 Proposed Routes

Figure 3-6 illustrates the proposed routes across the study area alongside the existing network. Proposed routes have been categorised depending on the classification of the desire line they support (see Section 3.1.4). Details of the proposed schemes are outlined in the below Sections 3.4.1 to 3.4.3.

Route Alignment Uncertainty

It should be noted that due to the strategic nature of LCWIPs, it is not possible to capture all detailed engineering constraints, such as precise carriageway width and the impact of removing on-street car parking, which may affect the future delivery of new routes. In these cases, routes have been identified based on key principles including their ability to directly fulfil desire lines whilst also accounting for high-level constraints which may impinge deliverability such as width of existing funnel points (e.g. bridges). This means the precise route alignment detail (e.g. specific streets) is subject to change through any future preliminary and detailed route design process.



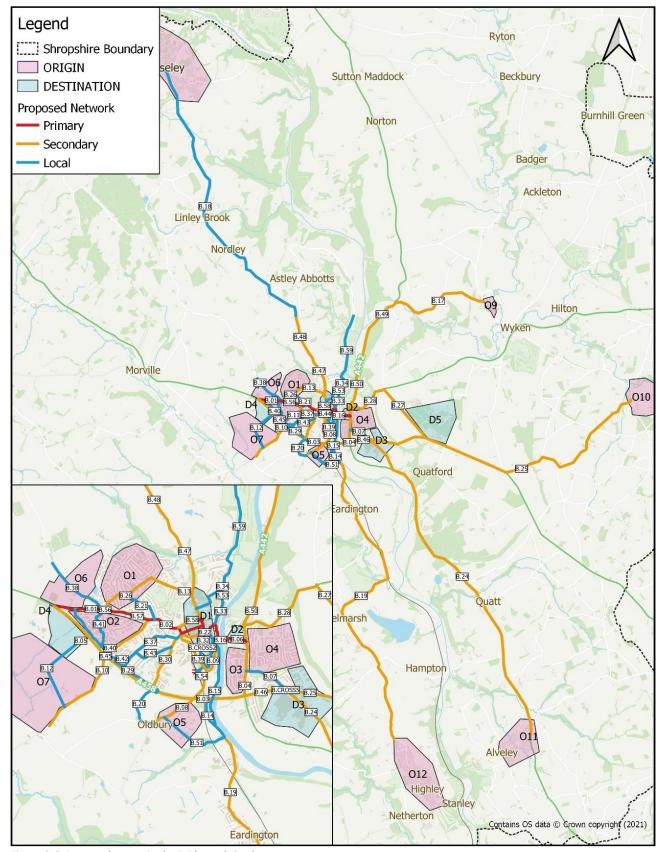


Figure 3-6: Proposed routes in the Bridgnorth Study Area

Note: categories of routes are based on the desire line they follow, not the priority of their delivery



3.4.1 Primary

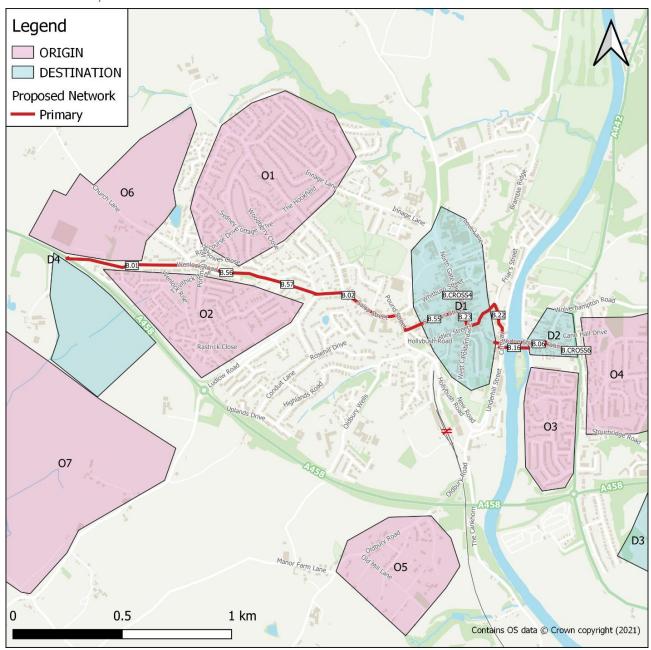


Figure 3-7: Bridgnorth Proposed Network Plan; Schemes Following a Primary Desire Line



Scheme	Description	Recommendation					
B.01	Route along Wenlock Road (W) between A458 and Church Lane	Investigate provision of segregated cycle lanes or widen southern footway into shared path. Includes crossing provision at the two roundabouts along the route					
B.02	Link into the town centre from the west of Bridgnorth	Investigate provision of segregated cycle lanes. Narrow sections of road may mean a 20mph limit is needed where cycle lanes cannot fit					
B.06	Improve existing river crossing between High Town (D1) and Low Town (D2) and access to it	Reallocate road width to have a widened footway on one side instead of narrow footways on both sides. Investigate potential to make road one-way, with contraflow cycle lanes along the bridge. Provide safer junction for pedestrians at western end (particularly crossing of Cartway). Establish a 20mph limit over the bridge					
B.16	Potential to add a new pedestrian/cycle bridge across the river as limited space on existing bridge for active travel users	Investigate the potential to add a new pedestrian/cycle bridge across the river as the limited space on existing bridge for active travel users. Investigate making this new brappropriate for horses as well					
B.22	Cycle route through the town centre along Cart Way avoiding steps to connect Low Town (D2) and High Town (D1)						
B.23	Cycling provision along the High Street	Investigate contra-flow cycle way and/or timed closures to traffic other than buses. Reduce on-street parking by making angled bays parallel parking and for priority users only (e.g. disabled and loading)					
B.55	Route along St Marys Street providing access onto the High Street	Investigate closure to traffic and have an active only access					
B.56	Route along Wenlock Road between Church Lane and Westland Drive	Investigate provision of segregated cycle lanes & new formalised crossing before hill					
B.57	Route along Wenlock Road between Ludlow Road and Westland Drive	Investigate provision of segregated cycle lanes. Potentially take some extra space from grass verge to make up enough width for this					
B.CROSS1	Crossing of St Johns Street in Low Town	Create new crossing					
B.CROSS4	Crossing of High Street at northern end where wider	Create new crossing					
B.CROSS6	Crossing on junction with St Johns Street and A442	Create new crossing					

Table 3-2: Details of Proposed Schemes in Bridgnorth Following a Primary Desire Line



3.4.2 Secondary

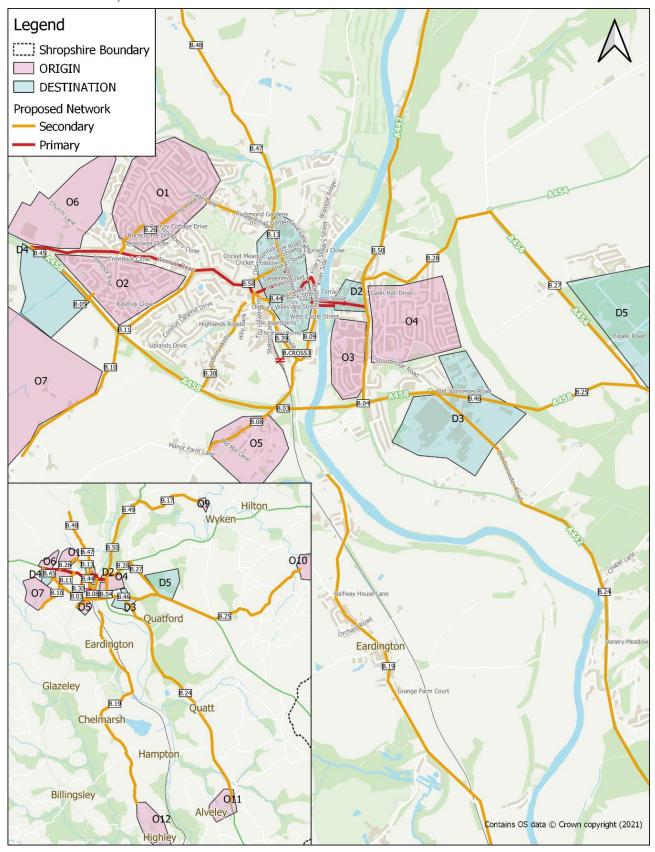


Figure 3-8: Bridgnorth Proposed Network Plan; Schemes Following a Secondary Desire Line



Scheme	Description	Recommendation
B.03	Route along the central section of the southern bypass (A458)	Create a shared path from Ludlow Road to Low Town junction, providing access off the A-road to adjoining paths such as scheme B.08 and the river path on either side of the bridge. Includes crossing provision at the A458/A442 roundabout
B.04	Route along Kidderminster Road/Hospital Street to connect bypass to residential areas and provide connection to Low Town (D2)	Segregated cycle lanes on Kidderminster Road, as well as repair works to footways (including potential widening)
B.05	Crossing of bypass from existing residential (O2) to future employment (D4)	Identify location for new crossing or underpass of bypass
B.08	Connecting Oldbury (O5) to the town centre (D1) along Oldbury Road, including crossing of the bypass	Introduce cycle lanes or shared path on B4363 (Oldbury Road), with shared path over the bridge. Includes crossing provision at the junction between Underhill Street/Hollybush Road/Oldbury Road at the northern end of the route
B.09	Route along Underhill Street, provides bypass of the town centre and links to railway station along Underhill Street	Investigate cycle lanes and/or transforming wide footway into shared path. Provide priority crossing of New Road
B.10	Route from the bypass to the future housing development (O7) along Ludlow Road	Create shared path parallel to main road
B.11	Provide connection from residential area (O2) to the town centre (D1) along Ludlow Road	Segregated cycle lanes along Ludlow Road
B.13	Connection from the north west (O1) to the town centre (D1) past the hospital, college and into the high street - route along Innage Lane and North Gate	Segregated cycle lanes on Innage Lane, to be accompanied by one-way sections to provide enough space
B.17	Route along unnamed road between A442 and Worfield (O9) (via Rindleford)	Introduce rural road interventions such as increased passing places, reduced speed limit or creating a Quiet Lane
B.19	Connection from Highley (O12) to Bridgnorth along B4555 through Eardington, Chelmarsh and Chelmarsh Common	Investigate shared path parallel to road. Consider denoting it as a bridleway depending on permissions. Reduce speed limit to 20mph through villages where there is insufficient width for a shared path
B.24	Connection from Alveley (O11) to Bridgmorth along the A442 through Danesford, Quatford and Quatt	Ensure traffic speeds are kept low, provide signage to promote the route and keep foliage trimmed



Scheme	Description	Recommendation
B.25	Connection from Claverley (O10) to Bridgmorth along Pound Street and the A458	Investigate shared path parallel to road, consider denoting it as a bridleway depending on permissions
B.26	Local route through residential area (O1) connecting to desire line movements to town centre (D1) - route along Hookfield, Sydney Cottage Drive, Racecourse Drive and Leasowes Close	Reduce speed limit to 20mph
B.27	Connection into the Stanmore Industrial Estate and Country Park (D5) along the A454	Upgrade existing narrow path/footway along A454 to a shared path and introduce crossing provision at the A454/B4363 and A454/A548 roundabouts
B.28	Route along Wolverhampton Road to connect Low Town (D2) to Stanmore Industrial Estate (D5)	Investigate cycle lanes or alternative cycle route on parallel routes
B.30	Route along Oldbury Wells – linking into the schools	Create shared path on eastern side, creating a 20mph zone where there is insufficient width for shared path
B.39	Route along Hollybush Road (D1) providing bypass of the town centre	Widen footway into shared path or add cycle lanes (potentially removing northern footway for space)
B.44 Route along Listley Street providing link into the High Street		Create a point closure along Listley Street, closing off the eastern end
B.45	Route along the A458 between Wenlock Road and Ludlow Road	Create a new shared path along the bypass
B.46	Route along the A458 from Low Town to the business park	Widen existing path to make a segregated shared path
B.47	Route along the B4373 north of Bridgnorth heading to Broseley (O8)	Make a Quiet Lane, provide signage and trim foliage
B.48	Route along B4373 passing through Cross Lane Head	Make a Quiet Lane, provide signage and trim foliage
B.49	Route along A442 Bridgnorth Road from the Rindleford Junction to where the path begins (joining to scheme B.50)	Create a cycle lane with light segregation, reduce speed limit to at least 40mph
B.50	Route along A442 Bridgnorth Road between the roundabout and where the path ends (joining to scheme B.49)	Investigate transforming existing (and currently inconsistent) path into shared path parallel to road, including trimming back foliage
B.58	Route along Whitburn Street linking to the High Street	Reduce speed limit to 20mph
B.CROSS3	Crossing of New Road	

Table 3-3: Details of Proposed Schemes in Bridgnorth Following a Secondary Desire Line



3.4.3 Local

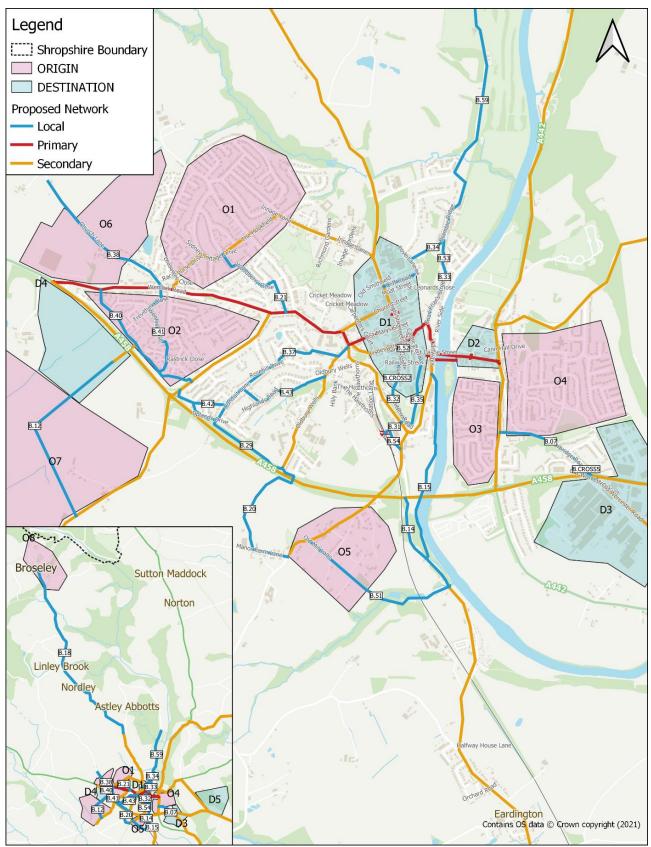


Figure 3-9: Bridgnorth Proposed Network Plan; Schemes Following a Local Desire Line



Scheme	Description	Recommendation
B.07	Route from A442 to industrial park (D3) to avoid the busy bypass junction	Introduce cycle lanes or shared path, reducing speed limit to 20mph where insufficient width for infrastructure
B.12	New connection between future residential (O7) and employment (D4) zones	Create path through new development
B.14	Route connecting the river route to the bypass via The Cankhorn	Trim back foliage and utilise space on the embankment to create a ramp. Provide step-free access from the A458 and widen the existing pathway. Alternative is to create a Quiet Lane
B.15	Route along the River from Oldbury (O5) to Underhill Street (D1)	Enhance existing path (e.g. by widening, improving surface, additional lighting)
B.18	Connection between Bridgnorth and Broseley (O8) along Bridgnorth Road	Create a shared path on the B4373 or a Quiet Lane. Create passing spaces for cyclists
B.20	Utilising existing paths/bridge from Oldbury along Manor Farm Lane (O5) to Oldbury Wells school connecting into B.30, B.29 and B.08	Enhance existing path (e.g. by widening, improving surface, additional lighting) and provide step-free access onto the A458 (B.03)
B.21	Connection from the north west (O1) towards the town centre (D1) along Woodberry Close, Andersons Lane and existing pathways	Enhance existing path (e.g. by widening, improving surface, additional lighting)
B.29	Route along the PROW parallel to A458 from Ludlow Road to Oldbury Wells	Upgrade PROW for walking and cycling, ensuring no user loses their right of access (e.g. equestrians)
B.31	Bridge crossing from the railway station	Increase signage to pedestrian and cycle bridge
B.32	Route along New Road/West Castle Street into the town centre	Make New Road a point closure with crossing provision at the New Road/Underhill Street (B4373) junction
B.33	Route along Friar's Street linking into the town centre from the north	Enhance existing path (e.g. by widening, improving surface, additional lighting)
B.34	Route along Bramble Ridge and an existing PROW from the town centre to the scout hut	Enhance off-road route (e.g. by widening, improving surface, additional lighting), ensuring no user loses their right of access (e.g. equestrians)
B.35	Route along Castle Walk in the town centre	Segregate existing path to provide space for cyclists
B.36	Cannon Steps onto New Road, joining to the railway bridge	Create step-free access at Castle Steps
B.37	Route along Rose Lane and Conduit Lane linking into the town centre	Enhance existing path (e.g. by widening, improving surface, additional lighting)



Scheme	Description	Recommendation
B.38	Route along Church Lane to Taskey, linking residential area (O6) to main road into town	As suggested in Bridgnorth's Master Plan, allow greater priority to pedestrians and cyclists by encouraging/re-routing traffic for the new development via the new spine road. Alongside this, improve the footway along its entire length, giving as much space to pedestrians and cyclists as possible.
B.40	Route along existing PROW through western residential area (O2), parallel to the A458	Connect route through to the bypass
B.41	Route through western residential area (O2) north-south along PROWs, Tavistock Close, Roundthorn Close and Maudlins Close	Improve signage to route
B.42	Connection along the PROW linking Ludlow Road to Conduit Lane	Upgrade woodlands route for cycling including replacing steps with ramp, increasing lighting and signage and widening through vegetation removal where possible
B.43	Route along Highlands Road and the PROW connecting into Oldbury Wells	Upgrade stepped woodlands route for cycling, including lighting, signage, vegetation removal and surface upgrade
B.51	Route along Old Mill Lane between Oldbury Road and the B4555 through Oldbury (O5)	Provide signage on Old Mill Lane ensuring foliage is trimmed and traffic speeds are kept low. Between Old Mill Lane and B4555, create surfaced shared use path
B.52	Route along Postern Gate linking into the southern end of the High Street	Investigate closing it to through traffic
B.53	Route along existing PROW between Friar's Street and Bramble Ridge	Provide 3.5m wide path with bollards, acting as cycle route and emergency flood access route, ensuring no user loses their right of access (e.g. equestrians)
B.54	Link from Oldbury Road to Bridgnorth Station along existing pathway	Upgrade existing path to provide step-free access to station and ped/cycle bridge
B.59	Route along Sandy Lane between Bridgnorth and NCN Route	Upgrade road to improve safety for cyclists as part of the NCN
B.CROSS2	Crossing of New Road towards Castle Gardens	
B.CROSS5	Crossing of A458 into industrial estate (D3)	

Table 3-4: Details of Proposed Schemes in Bridgnorth Following a Local Desire Line



4 Network Planning for Walking

This chapter summarises the identification of the walking network for Bridgnorth as part of the Shropshire LCWIP. Development of the walking network is focused on identification of Core Walking Zones (CWZs), as identified in the main LCWIP report (see Chapter 6). The identification of CWZs allows walking improvements to be prioritised in areas of higher pedestrian footfall where there is a particularly high concentration of key destinations. Bridgnorth Town Centre has been identified, based on analysis of key locations of destinations such as retail facilities, employment areas and transport interchanges, as Bridgnorth's key CWZ. This was also agreed via discussions with key stakeholders at the Bridgnorth workshop. Figure 4-1 below shows the CWZ for Bridgnorth alongside key origin and destination points within the town, which include retail spaces, the railway station, the hospital and some local schools.

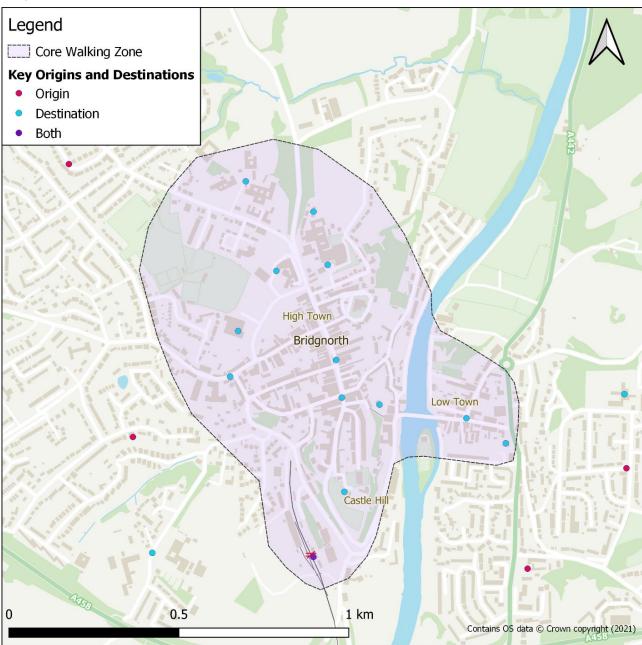


Figure 4-1: Bridgnorth CWZ



In order to identify routes both to and within the CWZs, a network of preferred walking routes has been defined for Bridgnorth drawing on an analysis of the following data:

- Key Walking Trip Generators Accessibility Analysis (see Section 4.1.1)
- Key Walking Routes (see Section 4.1.2)
- Stakeholder Engagement (see Section 4.1.3)
- Walking Route Audits (see Section 4.1.4)

The resulting CWZ improvements are detailed in Section 4.2.

4.1 Core Walking Zone Analysis

4.1.1 Key Walking Trip Generators Accessibility Analysis

Figure 4-2 shows the results of a walking accessibility assessment, categorised by walking journey time, undertaken for Bridgnorth's town centre. It illustrates that the following key trip generators can be accessed on foot within a 30-minute walk or less from the centre, shown as the walking icon and located on the High Street.

- Bridgnorth's High Town is within a 5-minute walk
- The Low Town across the river is accessible within a 10-minute walk
- The village Oldbury are located within a 30-minute walk

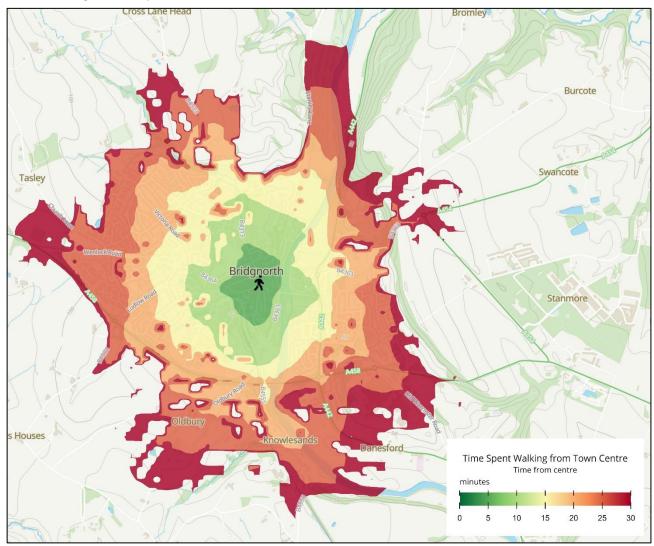


Figure 4-2: Bridgnorth Town Centre CWZ Accessibility Analysis



4.1.2 Key Walking Routes

Figure 4-3 illustrates the key walking routes within a ten-minute walk of the High Street, the centre point within the Bridgnorth CWZ. The key walking routes area categorised using the following criteria which is contained within the DfT Guidance (DfT, 2017):

- **Primary Walking Routes:** Such as busy shopping streets, business areas and main pedestrian thoroughfares
- Secondary Walking Routes: Moderate use routes connecting to primary routes and local centres
- Link Footways: Connecting local access footways through urban areas
- Local Access Footways: Low use footways such as estate roads and cul-de-sacs

Figure 4-3 indicates:

- Primary route through the town centre links up the high street towards key secondary routes reaching out beyond to the hospital and other destinations
- Key secondary routes provide connectivity across the town centre
- Numerous link and local access footways provide cut-throughs within the town centre and provide access to multiple services, including the train station



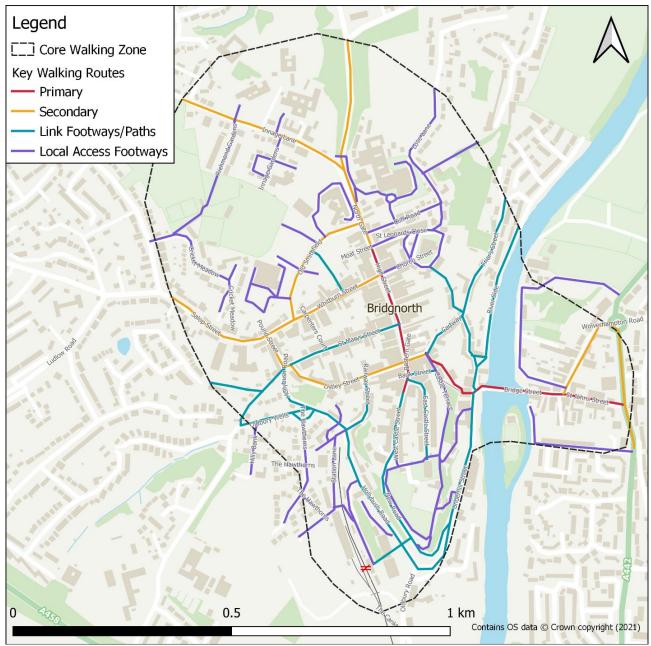


Figure 4-3: Bridgnorth Town Centre CWZ Key Walking Routes

4.1.3 Stakeholder Engagement

Similar to the route selection process for the cycling network (See Chapter 3), the key walking routes have been informed by suggestions from local stakeholders who walk and cycle around Bridgnorth. An initial survey was circulated to local stakeholder groups to support the evidence base by capturing their views on network-wide opportunities and constraints for active travel within Bridgnorth.

Further suggestions and feedback on the identification of the CWZs and key walking routes and opportunities for walking improvements were collected through a local workshop. All suggestions were collated on Miroboard, a snapshot of which is shown in Figure 4-4.



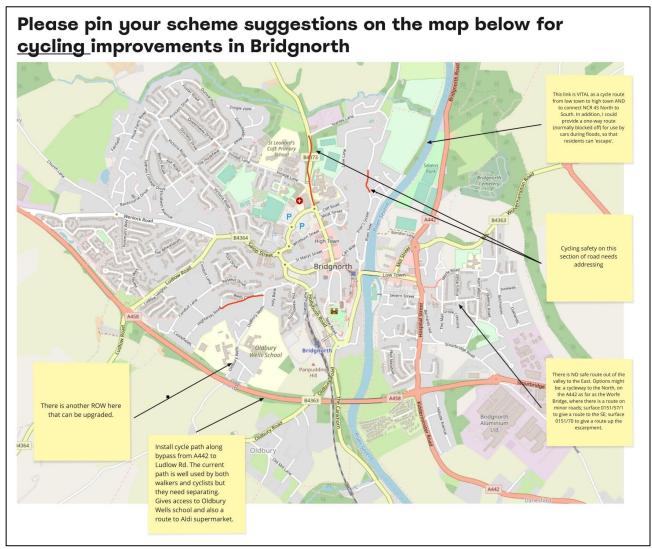


Figure 4-4: Stakeholder Feedback on Bridgnorth Town Centre

A subsequent site visit, as well as follow-up survey sent to those stakeholders that attended the workshop, enabled validation and further refinement of the CWZs, key walking routes and proposed improvements (see Chapter 2 for further detail).

4.1.4 Walking Route Audits

The ease of walking both <u>to</u> the CWZ from the town's residential areas as well as <u>through</u> the CWZ (known as permeability) can be affected by the presence of barriers such as railway lines, rivers and heavily trafficked routes, this is known as 'severance'. Crossing points at these barriers create 'funnel routes' which have higher pedestrian flows.

A desktop audit, validated by a site visit (undertaken in March 2022) of the existing key pedestrian routes both <u>to</u> the Bridgnorth CWZ from the surrounding residential areas and <u>through</u> the Bridgnorth CWZ was undertaken to determine where improvements were needed. The audit included a review of footway provision and condition, the availability of crossing points and way-finding signage. A key focus of the audit was reviewing the infrastructure for those with mobility impairments. It also included consideration of historical collision data involving pedestrians.

The Walking Route Assessment Tool provides a baseline for existing conditions and identified the existing barriers and funnel routes (see Figure 4-5) when walking both to and within the CWZ. The results of the audit are shown in Table 4-1, Bridgnorth's CWZ achieved a score of 50%, far below the minimal provision score of 70% set out by the guidance.



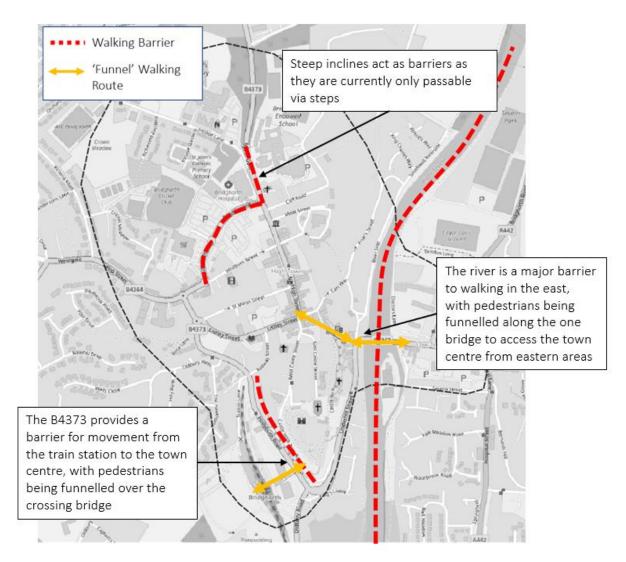


Figure 4-5: Bridgnorth town centre CWZ Barrier & Funnel Analysis

Principle	Performance Score	% Score
Attractiveness (includes maintenance, fear of crime, traffic noise and pollution)	4	67%
Comfort (includes condition of footways, footway width, width on staggered crossings/pedestrian islands/refuges, prevalence of vehicles parked on the footway and gradient of footways)	3	30%
Directness (includes footway provision, location of crossings in relation to desire lines, gaps in traffic, impact of controlled crossings on journey time and green man time)	7	70%
Safety (includes traffic volume, traffic speed and visibility)	3	50%
Coherence (includes provision of dropped kerbs and tactile paving)	0	0%
Total	17	50%

Table 4-1: Walking Route Audit Scores for the Bridgnorth CWZ



4.2 Core Walking Zone Improvements

Strategic recommendations for each CWZ have been based upon the key outcomes of Section 4.1 above.

Table 4-2 and Figure 4-6 provide a series of overarching recommendations for improving the walking environment in the Bridgnorth town centre CWZ, categorised by the key Gear Change (2020) principles of Attractiveness, Comfort, Directness, Safety & Coherence. As identified in the main LCWIP report, these principles are essential requirements for Shropshire Council to meet in order to qualify for future active travel grant funding from Active Travel England.

The proposed interventions are high-level and identify concepts for further consideration in the next stage of design. The interventions identified seek to address the issues and barriers identified in this chapter. Walking improvement measures for each of the CWZ's range from minor interventions such as dropped kerbs to new crossings, footway widening and public realm improvement projects. Although the proposed interventions focus on the CWZs in line with DfT LCWIP guidance, they provide examples of the types of interventions that can be implemented in other parts of Bridgnorth and county-wide.

It is also worth noting that the majority of the cycle schemes proposed in Section 3.4 include provision for pedestrians and so also act as walking recommendations. The recommendations proposed below cover wider area improvements as most of the route specific changes are covered by cycling proposals above.

Key Principle	Strategic Walking Improvement Recommendations					
Attractiveness & Comfort	 Repurpose carriageway space along the High Street for public realm improvements such as seating and market stalls 					
Directness	Improve pedestrian links to parking behind the High Street					
Safety	 Make the High Street more pedestrian orientated by widening footways and considering full pedestrianisation Improve crossing points along the High Street with increased dropped kerbs Consideration of closure of Cartway from the north to traffic Consideration of closure of Postern Gate to traffic Consideration of making St Mary's active travel and access only 					
Coherence	 Increase signage between key attractors such as the Railway Station, High Town and Low Town 					

Table 4-2: Strategic Walking Improvement Recommendations in Bridgnorth Town Centre CWZ



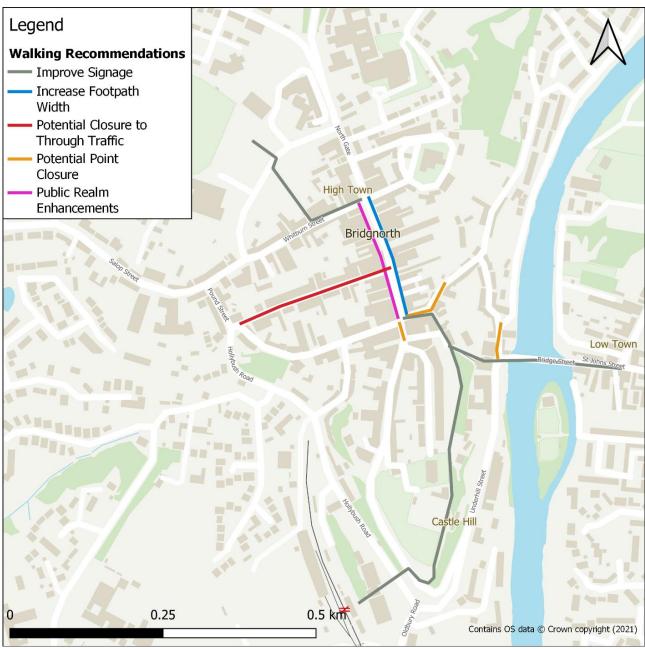


Figure 4-6: Walking Recommendations within Bridgnorth



5 Prioritisation Results

As explained in the main LCWIP Report, the purpose of the prioritisation process is to help inform which routes or areas could be considered for further development first. The LCWIP Guidance (DfT, 2017) states that proposed schemes should be prioritised based on their ability to 'have the greatest impact on increasing the number of people who choose to walk and cycle and therefore provide the greatest return on investment.' It also identifies other factors, including deliverability of schemes or opportunities to integrate with wider schemes, should be considered.

The LCWIP Main Report provides further detail on the Appraisal approach used to inform the prioritisation of schemes.

5.1 Top Performing Schemes

Table 5-1 shows the top performing schemes for Bridgnorth; a full list of the prioritisation results for Bridgnorth is shown in Appendix: Full Prioritisation Results.

The top scoring schemes are a mix of short connections which support local movements across barriers (e.g. the railway line) and longer distance links connecting into the surrounding villages from the town. The highest scoring scheme is along Whitburn Street, supporting movement into the town centre from the west.

Scheme Name	Description	Zero Carbon	Healthier	Mode Shift	Inclusive	Sustainable Growth	Objective Total	Deliverability	Total Score	Local Rank
B.58	Route along Whitburn Street linking to the High Street	6	6.5	7	7.5	6.75	34	26	60	1
B.CROSS6	Crossing on junction with St Johns Street and A442	7.5	5.5	8	7.5	7.5	36	22	58	2
B.22	Cycle route through the town centre along Cart Way avoiding steps to connect Low Town (D2) and High Town (D1)	6.75	6	9	5.25	6.75	34	24	58	3
B.04	Route along Kidderminster Road/Hospital Street to connect bypass to residential areas and provide connection to Low Town (D2)	6.75	6	7	7.5	7.5	35	22	57	4
B.26	Local route through residential area (O1) connecting to desire line movements to town centre (D1) - route along Hookfield, Sydney Cottage Drive, Racecourse Drive and Leasowes Close	6.75	5.5	4	6.75	7.5	31	26	57	5
B.13	Connection from the north west (O1) to the town centre (D1) past the hospital, college and into the high street - route along Innage Lane and North Gate	6	6.5	7	8.25	8.25	36	20	56	6



Scheme Name	Description	Zero Carbon	Healthier	Mode Shift	Inclusive	Sustainable Growth	Objective Total	Deliverability	Total Score	Local Rank
B.55	Route along St Marys Street providing access onto the High Street	6	6	9	6	6.75	34	22	56	7
B.31	Bridge crossing from the railway station	7.5	5	5	7.5	4.5	30	26	56	8
B.44	Route along Listley Street providing link into the High Street	6	6	8	6	6.75	33	22	55	9
B.CROSS1	Connection from the north west (O1) towards the town centre (D1) along Woodberry Close, Andersons Lane and existing pathways	7.5	5.5	8	6	7.5	35	20	55	10
B.21	Route along Whitburn Street linking to the High Street	7.5	5	4	5.25	6.75	29	26	55	10

Table 5-1: Top Performing Schemes in Bridgnorth





Figure 5-1: Top 10 Scoring Schemes in Bridgnorth



5.2 Prioritised Routes

5.2.1 Timescales

In line with DfT Guidance, this LCWIP considers a prioritised series of network upgrades across a tenyear period.

Future infrastructure improvement schemes have been categorised as follows:

- Short Term Network Improvements (2 5 years): 'Quick wins' which can be delivered relatively easily with limited local opposition, do not rely on other schemes progressing and could be delivered within current or already identified forthcoming funding streams available to Shropshire Council. Schemes can only be categorised as Short Term if they are either in the top 100 schemes over the county or have a score within the top 10% for the town they are in.
- Medium Term Network Improvements (5 8 years): Schemes that potentially require more than one round of consultation before progression, and are subject to further feasibility assessment and/or reliant on some dependency such as another scheme progressing
- Long Term (8 10 years): Schemes that are more challenging to deliver due to the need for more in-depth consultation, noteworthy scheme engineering feasibility challenges and/or are reliant on other schemes progressing

5.2.2 Prioritised Routes

Based on the outcomes of the appraisal and prioritisation process, the recommended delivery timescales for the cycling network are indicated in Figure 5-2.



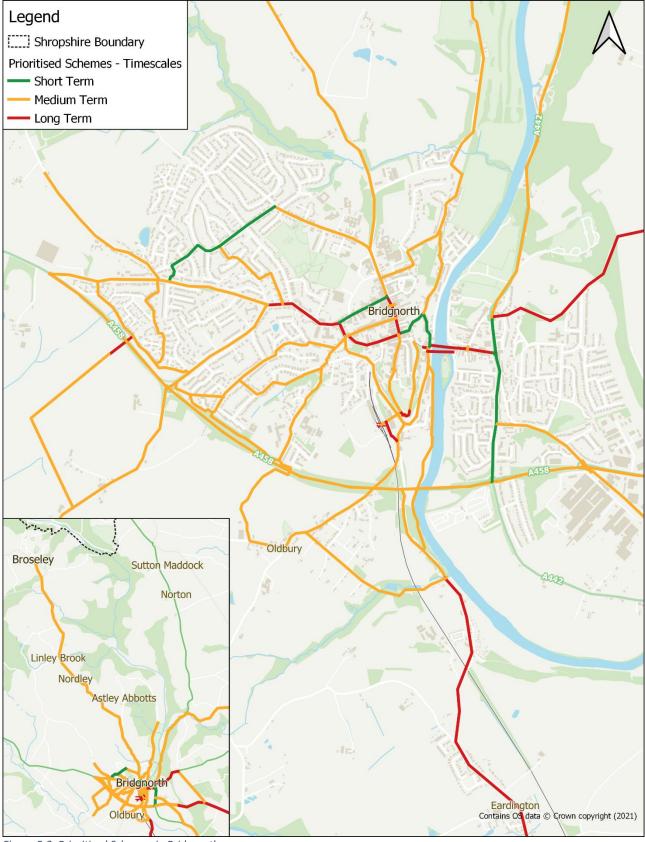


Figure 5-2: Prioritised Schemes in Bridgnorth



6 Appendix: Full Prioritisation Results

Scheme Name	Description	Zero Carbon	Healthier	Mode Shift	Inclusive	Sustainable Growth	Objective Total	Deliverability	Total Score	Local Rank	Time Scale
B.58	Route along Whitburn Street linking to the High Street	6	6.5	7	7.5	6.75	34	26	60	1	Short
B.CROSS6	Crossing on junction with St Johns Street and A442	7.5	5.5	8	7.5	7.5	36	22	58	2	Short
B.22	Cycle route through the town centre along Cart Way avoiding steps to connect Low Town (D2) and High Town (D1)	6.75	6	9	5.25	6.75	34	24	58	3	Short
B.04	Route along Kidderminster Road/Hospital Street to connect bypass to residential areas and provide connection to Low Town (D2)	6.75	6	7	7.5	7.5	35	22	57	4	Short
B.26	Local route through residential area (O1) connecting to desire line movements to town centre (D1) - route along Hookfield, Sydney Cottage Drive, Racecourse Drive and Leasowes Close	6.75	5.5	4	6.75	7.5	31	26	57	5	Short
B.13	Connection from the north west (O1) to the town centre (D1) past the hospital, college and into the high street - route along Innage Lane and North Gate	6	6.5	7	8.25	8.25	36	20	56	6	Medium
B.55	Route along St Marys Street providing access onto the High Street	6	6	9	6	6.75	34	22	56	7	Medium
B.31	Bridge crossing from the railway station	7.5	5	5	7.5	4.5	30	26	56	8	Medium
B.44	Route along Listley Street providing link into the High Street	6	6	8	6	6.75	33	22	55	9	Long
B.21	Connection from the north west (O1) towards the town centre (D1) along Woodberry Close, Andersons Lane and existing pathways	7.5	5	4	5.25	6.75	29	26	55	10	Medium
B.CROSS1	Crossing of St Johns Street in Low Town	7.5	5.5	8	6	7.5	35	20	55	10	Medium
B.23	Cycling provision along the High Street	6	6	9	7.5	7.5	36	18	54	12	Long
B.35	Route along Castle Walk in the town centre	6	6.5	7	5.25	5.25	30	24	54	12	Medium
B.37	Route along Rose Lane and Conduit Lane linking into the town centre	7.5	6	6	5.25	5.25	30	24	54	12	Medium
B.02	Link into the town centre from the west of Bridgnorth	7.5	6.5	7	6	6.75	34	20	54	15	Long
B.39	Route along Hollybush Road (D1) providing bypass of the town centre	6	6.5	8	6	5.25	32	22	54	15	Medium
B.33	Route along Friar's Street linking into the town centre from the north	7.5	4.5	5	7.5	6.75	31	22	53	17	Medium



Scheme Name	Description	Zero Carbon	Healthier	Mode Shift	Inclusive	Sustainable Growth	Objective Total	Deliverability	Total Score	Local Rank	Time Scale
B.47	Route along the B4373 north of Bridgnorth heading to Broseley (O8)	6.75	6	7	5.25	6	31	22	53	18	Medium
B.CROSS4	Crossing of High Street at northern end where wider	6	6	8	7.5	7.5	35	18	53	18	Medium
B.06	Improve existing river crossing between High Town (D1) and Low Town (D2) and access to it	6.75	6.5	9	6.75	7.5	37	16	53	20	Long
B.38	Route along Church Lane to Taskey, linking residential area (O6) to main road into town	7.5	4	3	6.75	6.75	28	24	52	21	Medium
B.CROSS3	Crossing of New Road	7.5	5	6	6	4.5	29	22	51	22	Medium
B.52	Route along Postern Gate linking into the southern end of the High Street	6	5.5	7	6	6	31	20	51	23	Medium
B.08	Connecting Oldbury (O5) to the town centre (D1) along Oldbury Road, including crossing of the bypass	6.75	5	6	6	4.5	28	22	50	24	Medium
B.34	Route along Bramble Ridge and an existing PROW from the town centre to the scout hut	6	5.5	6	6	6.75	30	20	50	24	Medium
B.43	Route along Highlands Road and the PROW connecting into Oldbury Wells	7.5	5	5	5.25	5.25	28	22	50	26	Medium
B.42	Connection along the PROW linking Ludlow Road to Conduit Lane	7.5	4.5	4	5.25	4.5	26	24	50	27	Medium
B.01	Route along Wenlock Road (W) between A458 and Church Lane	6.75	4.5	5	5.25	6	28	22	50	28	Medium
B.30	Route along Oldbury Wells – linking in to the schools	6.75	6	7	6	5.25	31	18	49	29	Medium
B.15	Route along the River from Oldbury (O5) to Underhill Street (D1)	7.5	5.5	6	5.25	4.5	29	20	49	30	Medium
B.28	Route along Wolverhampton Road to connect Low Town (D2) to Stanmore Industrial Estate (D5)	6.75	6	6	4.5	5.25	29	20	49	31	Long
B.40	Route along existing PROW through western residential area (O2), parallel to the A458	7.5	5.5	3	4.5	6	27	22	49	31	Medium
B.53	Route along existing PROW between Friar's Street and Bramble Ridge	6	5	4	7.5	6	29	20	49	31	Medium



Scheme Name	Description	Zero Carbon	Healthier	Mode Shift	Inclusive	Sustainable Growth	Objective Total	Deliverability	Total Score	Local Rank	Time Scale
B.16	Potential to add a new pedestrian/cycle bridge across the river as limited space on existing bridge for active travel users	6	6.5	9	6	6.75	34	14	48	34	Long
B.32	Route along New Road/West Castle Street into the town centre	6	6	7	5.25	6	30	18	48	34	Medium
B.07	Route from A442 to industrial park (D3) to avoid the busy bypass junction	7.5	4.5	4	5.25	6.75	28	20	48	36	Medium
B.24	Connection from Alveley (O11) to Bridgnorth along the A442 through Danesford, Quatford and Quatt	7.5	6	4	4.5	6	28	20	48	36	Medium
B.45	Route along the A458 between Wenlock Road and Ludlow Road	6.75	4.5	4	4.5	6	26	22	48	38	Medium
B.09	Route along Underhill Street, provides bypass of the town centre and links to railway station along Underhill Street	5.25	6	7	6	5.25	30	18	48	39	Medium
B.12	New connection between future residential (O7) and employment (D4) zones	6.75	4	3	4.5	5.25	24	24	48	39	Medium
B.46	Route along the A458 from Low Town to the business park	6.75	5	5	5.25	7.5	30	18	48	39	Medium
B.20	Utilising existing paths/bridge from Oldbury along Manor Farm Lane (O5) to Oldbury Wells school connecting into B.30, B.29 and B.08	7.5	4.5	4	6	5.25	27	20	47	42	Medium
B.29	Route along the PROW parallel to A458 from Ludlow Road to Oldbury Wells	7.5	4.5	4	6	5.25	27	20	47	42	Medium
B.CROSS2	Crossing of New Road towards Castle Gardens	6	6	6	6	5.25	29	18	47	42	Medium
B.48	Route along B4373 passing through Cross Lane Head	7.5	4	4	4.5	4.5	25	22	47	45	Medium
B.59	Route along Sandy Lane between Bridgnorth and NCN Route	6.75	5	3	5.25	4.5	25	22	47	45	Medium
B.11	Provide connection from residential area (O2) to the town centre (D1) along Ludlow Road	6.75	5.5	5	3.75	5.25	26	20	46	47	Medium
B.56	Route along Wenlock Road between Church Lane and Westland Drive	6.75	4.5	5	6	6	28	18	46	47	Medium
B.57	Route along Wenlock Road between Ludlow Road and Westland Drive	6.75	4.5	6	3.75	5.25	26	20	46	47	Medium



Scheme Name	Description	Zero Carbon	Healthier	Mode Shift	Inclusive	Sustainable Growth	Objective Total	Deliverability	Total Score	Local Rank	Time Scale
B.41	Route through western residential area (O2) north-south along PROWs, Tavistock Close, Roundthorn Close and Maudlins Close	7.5	4.5	3	4.5	4.5	24	22	46	50	Medium
B.50	Route along A442 Bridgnorth Road between the roundabout and where the path ends (joining to scheme B.49)	7.5	5	6	6	5.25	30	16	46	51	Medium
B.CROSS5	Crossing of A458 into industrial estate (D3)	7.5	4	3	6	6.75	27	18	45	52	Medium
B.14	Route connecting the river route to the bypass via The Cankhorn	7.5	4	5	6	4.5	27	18	45	53	Medium
B.36	Cannon Steps onto New Road, joining to the railway bridge	6.75	6.5	5	6	4.5	29	16	45	54	Long
B.05	Crossing of bypass from existing residential (O2) to future employment (D4)	6.75	4.5	4	5.25	5.25	26	18	44	55	Long
B.18	Connection between Bridgnorth and Broseley (O8) along Bridgnorth Road	5.25	6.5	3	3.75	5.25	24	20	44	55	Medium
B.17	Route along unnamed road between A442 and Worfield (O9) (via Rindleford)	7.5	5	4	3.75	3	23	20	43	57	Medium
B.27	Connection into the Stanmore Industrial Estate and Country Park (D5) along the A454	6.75	5.5	4	4.5	5.25	26	16	42	58	Medium
B.54	Link from Oldbury Road to Bridgnorth Station along existing pathway	6	4.5	5	7.5	4.5	28	14	42	59	Long
B.03	Route along the central section of the southern bypass (A458)	6.75	4.5	6	6	6	29	12	41	60	Medium
B.51	Route along Old Mill Lane between Oldbury Road and the B4555 through Oldbury (O5)	7.5	4	4	3.75	5.25	25	16	41	61	Medium
B.10	Route from the bypass to the future housing development (O7) along Ludlow Road	6	4	4	3.75	4.5	22	18	40	62	Medium
B.25	Connection from Claverley (O10) to Bridgnorth along Pound Street and the A458	6	5	4	5.25	6	26	12	38	63	Long
B.49	Route along A442 Bridgnorth Road from the Rindleford Junction to where the path begins (joining to scheme B.50)	6.75	4	4	5.25	3	23	14	37	64	Medium
B.19	Connection from Highley (O12) to Bridgnorth along B4555 through Eardington, Chelmarsh and Chelmarsh Common	6	6	5	3.75	3.75	25	12	37	65	Long

Table 6-1: Full Prioritisation Results for Bridgenorth



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